COMPILATION ON PILE RUGS

UNTYING RESTORATION FROM CURRENT CONSERVATION PRACTICES

by

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ABSTRACT

The pile rug has a unique status unlike all other textiles. It has been studied as a utilitarian object, artwork, product of trade, and prized collectable. The uniqueness of pile rugs cannot be attributed to a single factor. Construction, material, history, and previous care compound their complexity and allure. The restoration and conservation of pile rugs is an equally complicated history blurred by parallel treatment and preservation methods. The scope of this research is limited to the structural stabilization and compensation of visual loss in pile rugs. The goal of this research is to create a compilation on the methods in conservation and restoration of pile rugs from 1990 to present. In 1990, the Textile Museum in Washington D.C. hosted a symposium on the conservation of Oriental rugs. While the goal of the symposium was to spark further dialogue on the subject, published literature has since been sparse. This compilation contains two major components. The first is a literature review based on selected papers from the symposium and other published sources since the symposium. Secondly, interviews with experienced conservators provide further insight, which is then compared to the information found in the literature review. Conclusions draw on changes to practice over time and the comparison of current practices in the conservation of pile rugs.
Chapter 1
INTRODUCTION

The pile rug has a unique status unlike all other textiles. It has been studied as a utilitarian object, artwork, product of advanced trade routes, and prized collectable. The restoration and conservation of pile rugs is an equally complicated history blurred by parallel treatment and preservation methods. The goal of this thesis is to create a compilation on the methods in conservation and restoration of pile rugs by examining existing literature and interviewing experienced conservators.

While the conservation of rugs includes other facets such as cleaning, exhibition, and storage, the scope of this research is limited to the structural stabilization and compensation of visual loss in pile rugs. These facets are closely connected. Some treatments improve both structural stability and visual compensation. Conservation as a necessity for exhibition is a major theme in museum conservation, and conservators often weigh structural and aesthetic goals during treatment.

1.1 A Carpet Conservation Symposium

The goal of this research is to create a compilation on the methods in conservation and restoration of pile rugs from 1990 to present. The first major attempt to compile information on pile rugs occurred in January of 1990. At that time the Textile Museum in Washington D.C. hosted the Carpet Conservation Symposium on “the conservation of Oriental rugs,” it attracted the participation of 110 conservators and restorers from the United States, Canada, England, France, the Netherlands, and
Israel (Wolf Green 1991, 5). Volumes 29 and 30 of *The Textile Museum Journal* were published in 1990 and 1991 containing the papers presented at the symposium. Authors were invited to submit, “manuscripts based on original research of a documentary, analytical, or interpretive nature” that were “both scholarly and accessible to the public.”

The primary goals of the symposium were to “initiate a dialogue among conservators on this topic,” and to “try to define the current level of knowledge about the treatment of rugs, to quantify the techniques being used, and to evaluate whether or not a consensus should be built on the ethics and standards of this discipline” (Wolf Green 1991, 5). The papers presented suggest a variety of approaches without a consensus of ethical issues, however much of the research agreed that conservation and restoration are inherently tied in the history of the preservation of pile rugs.

Table 1 contains a list of articles included in Volumes 29 and 30 of *The Textile Museum Journal* that contain relevant information for this research.

---

1 Contemporary use of the term ‘Oriental’ has been criticized for its problematic association with the discrimination of people of Asian or Pacific heritage. In 2009, NPR host, Linda Wertheimer, interviewed, Jeff Yang, an Asian Pop Columnist for the San Francisco Chronicle. In the interview, titled “Oriental: Rugs, not People”, they discussed the political and cultural connotations of the word and its usage in state documents. It is interesting that both Werthheimer and Yang agreed that the term should not be used to describe people, however the title of the interview suggests that the term is unproblematic for referring to rugs (Wertheimer, 2009). The term ‘Oriental rug’ is still used with popularity today.
Table 1. Articles from Volumes 29 and 30 of *The Textile Museum Journal* that contain relevant information on the conservation of pile rugs

<table>
<thead>
<tr>
<th>Author(s)</th>
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<td>46-57</td>
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Some articles from the journal were omitted from research for one of two reasons. The first reason is that they did not address pile rugs specifically. The second reason is that they did not address structural stabilization or visual compensation for loss in pile rugs. These additional topics included wet cleaning, exhibition, flat weaves, and Nascan figurines.

While the goal of the symposium was to spark further dialogue on the subject, published literature has since been sparse. This compilation contains two major components. The first is a literature review based on the selected papers from symposium and other published case studies. Secondly, interviews with experienced conservators provide further insight, which is then compared to the information found
in the literature review. Conclusions draw on change to practices over time and the comparison of current practices in the conservation of pile rugs.

The uniqueness of pile rugs cannot be attributed to a single factor. Construction, material, history, and previous care compound their complexity and allure. It is necessary to first differentiate this kind of textile from others of its kind. Sections 1.1 and 1.2 explore the nuances of certain terms on which this research is based.

1.2 Pile Rug Terminology

In this thesis, rug and carpet are interchangeable terms. They refer to floor coverings that are “piled, felt, flat-woven, or embroidered” (Helfgott 1994, 18). However, the focus of this thesis will be on pile rugs. Pile refers to the structure formed within the textile that is made when “wrapping an extra weft thread around one, two, or four warp threads” (Helfgott 1994, 18). The resulting knots are referred to as pile. A pile rug, also known as a piled rug, is synonymous with a knotted rug. A pile rug is in part a woven textile, given that one or more weft yarn is woven between every row of knots. Therefore the term weaver can be used to describe the maker of pile rugs. They are additionally sometimes referred to as knotters given the specificity of their craft compared to other weavers (Helfgott 1994, 19). In contrast to the pile rug is kilim, also spelled gilim, which a flat woven rug. Whereas kilim is woven on a hypothetical X and Y-axis, pile rugs are distinguishable by an additional projection into the Z-axis by pile. Chapter 3 details how a supplementary weave, such as pile, further complicates the conservation and restoration of pile rugs.
1.3 **Conservation vs. Restoration**

Conservation and restoration are not synonymous terms. The American Institute for Conservation (AIC) states: “Conservation encompasses actions taken toward long-term preservation of cultural property. Conservation activities include examination, documentation, treatment, and preventive care, supported by research and education” (AIC). A person who performs these kinds of actions is known as a conservator. Although there is no official accreditation for conservators in the United States at this time, conservators are encouraged to follow a shared code. The AIC Code of Ethics and Guidelines for Practice is valuable as it unites conservators in a shared goal. By leaving room for interpretation, it encourages dialogues on updating ethics and best practice.

The scope of this research includes English-speaking conservators and restorers in the United States and the United Kingdom. While the skills of native restorers of the Middle East would provide additional insight, they have been understudied in scholarly literature published in English.

Some non-native restorers were surveyed in 1992 by conservator, Elizabeth Petillo, and were once apprentice weavers in the United States. Conservation training in this thesis refers to an understanding of chemistry, studio arts, and art history as well as a commitment to a set of ethical guidelines such as the AIC Code of Ethics and Guidelines for Practice. As the pile rug is examined as an object, artwork, and collectable, conservators consider the significant values of each pile rug individually.

The International Council of Museums (ICOM) has similar guidelines known as the ICOM Code of Ethics for Museums. Section 2.24 Collection Conservation and Restoration states, “…the principal goal [of treatment] should be the stabilization of the object or specimen. All conservation procedures should be documented and as
reversible as possible, and all alternatives should be clearly distinguishable from the original object or specimen” (ICOM 2017, 15).

Services that exist for pile rug conservation and restoration are often parallel in motive and similar in method (Perkins 1991, 13). Conservator, Sara Wolf Green, in her preface to Volumes 29 and 30 of *The Textile Museum Journal*, defines conservation and restoration in a way that is specific to rugs. This thesis builds on the research of the journal and similarly defines conservation and restoration of pile rugs. Wolf Green says conservation involves, “The treatment of a rug to place it in serviceable condition for handling, study, and display, recognizing that active conservation intervention should not detract from the original components and visual aesthetic of the piece” (Wolf Green 1991, 5). In contrast, restoration is defined as “the treatment of a rug to place it in serviceable condition primarily for its intended utilitarian use, striving to integrate the restoration with the original visual aesthetic as unobtrusively as possible” (Wolf Green 1991, 5).

As demonstrated in Wolf Green’s definition, conservation and restoration can sometimes be distinguishable in motivation. The conservator is concentrated on preserving “original components” and the integrity of the object, whereas the restorer may describe his or her primary focus as returning the work to a version of what it once was. This is related to prescribed values of objects.

However, in professional practice, conservation and restoration can still be difficult to differentiate. For example, a conservator at a museum and restorer in private practice may each apply a patch to a rug for similar reasons of compensating for visual loss or improving the rug’s structural stability. At times conservation and restoration are only distinguishable by an ethical framework, yet there are techniques
that are more indicative of each. The purpose of this thesis is not to draw a definitive line between the fields of conservation and restoration, but to learn which techniques have been successful and unsuccessful in each of these campaigns. In most cases, conservators or restorers define their own success in a treatment.

1.4 Synthesizing a Previous Survey

While the goal of the Carpet Conservation symposium may have been to spark a dialogue, the literature on pile rugs has been largely quiet since the publication of Volumes 29 and 30 of *The Textile Museum Journal*. Conservator, Elizabeth Petillo, published a notable article in 1992 titled, *Comparison of Treatments for Damage in Oriental Carpets*. In her research, she surveyed eight conservators, four restorers, and six additional rug researchers, “in order to address the issue of authenticity and compare the methods and priorities of both restorers and conservators (Petillo 1992, 47). In Petillo’s research three of the four restorers identified themselves firstly as restorers but considered themselves both a conservator and a restorer, whereas the conservators surveyed considered themselves firstly and only conservators.

Petillo’s research culminated in a proposition. Those intending to become rug preservation specialists should build a combined knowledge of restoration techniques and conservation treatment parameters into their practice. However for many general textile conservators, the responsibility of the preservation of pile rugs is only one of many responsibilities. The research in this thesis builds on Petillo’s ideas of authenticity and further considers how textile conservators who do not specialize in rug conservation have approached the conservation of pile rugs.
1.5 Summary

After the publication of Volumes 29 and 30 of *The Textile Museum Journal* and Petillo’s survey of comparisons for treatment, there have been only a few published articles analyzing the rationale for choices made during treatment. This thesis does not serve to document a full timeline of published scholarship on pile rugs, but rather it provides a point of entry for further research by highlighting significant works.
Chapter 2

OBJECT, ARTWORK, AND COLLECTABLE

This chapter considers the prescribed values of pile rugs assigned by conservators, restorers, researchers, and collectors. Many of these concerns relate to ideas of authenticity and artistic integrity as these can affect the choices made during the rug’s treatment. The variety of perspective can lead to contradictory practice, but the body of this knowledge can contribute to a collective understanding.

2.1 Museum Object

Many of the conservators included in the interview series work with pile rugs in museum collections, therefore it is important to consider how the context of an exhibition shapes the treatment of pile rugs.

In Western museum exhibitions the treatment of pile rugs considers a number of factors. Stabilization and loss compensation are of primary interest to this thesis, however other factors include storage, exhibition style, spatial accommodations, exhibition length, and structural supports. In the context of the museum, the conservation of a pile rug can be influenced by Western art historical imperatives (Petillo 1992, 53). However the specialized knowledge of the rug conservator can benefit from understanding the other perspectives of previous owners and restorers. One reason that a rug can be deemed unfit for display in a museum is poor previous restoration (Perkins 1991, 13). Likewise, it can limit its use in photography for
publication. However, not all signs of restoration are unsightly. Some hold important information about the history of the object prior to acquisition.

Even when thinking about rugs as part of a collection, it is important to consider their individuality. The term “object” suggests a kind of uniqueness within an exhibition. Social historian, Leonard Helfgott, studied Oriental rugs as objects of social history. His use of the term “object” is indicative of trade and production (Helfgott 1994). Articles in conservation such as those from Volumes 29 and 30 of *The Textile Museum Journal* are more likely to refer to pile rugs as textiles rather than objects. Though not stated directly, this may be a result of specializations within the field of Art Conservation and the distinct categories of object conservation and textile conservation.

2.2 **Artwork**

Pile rugs have always been considered a valuable item, though their original use was a combination of utilitarian and aesthetic. The production of pile rugs requires many preliminary preparations with considerable time for weaving and knotting. As early as the 16th century, carpet-weaving studios began to offer services in repair, as they were most knowledgeable in their construction. This phenomenon was mirrored in tapestry restoration, another form of art restoration at around the same time. The decline of these traditional workshops led to the creation of distinct rug restoration shops (Hutchinson 1991, 11). These shops specialized in repair, reweaving, and reconstruction often serving collectors and their requests.

When considering the pile rug as an artwork, even in the context of a museum, visual compensation may become priority. Common condition issues such as a hole can be approached in a number of ways. Issues that can affect aesthetic qualities often
affect structural stability simultaneously. Some techniques provide aesthetic improvement while also improving structural stabilization.

Valuing the pile rug as an artwork can elevate its form. An exhibition review from The Metropolitan Museum of Art in 1910 by Gustav Kobbé is titled, “Rembrandts of the Loom: The Rug Exhibition of the Metropolitan Museum of Art” (Kobbé 1910). This comparison to Old Master paintings was intentional to spark public interest in pile rugs. The likening of the pile rug to another artistic form proves that the ethical foundations of conservation apply to all art forms, including pile rugs.

2.3 Collectable

For many pile rugs in museums, their arrival into the collection is through a generous donation by a collector. The first campaigns of conservation or restoration on a pile rug probably occurred before it entered the museum. This why a conservator might consider the relationship that a rug had with its collector prior to treatment.

The market for antique Oriental rugs began in Europe and spread to the United States during the 19th century (Hutchinson 1991,11). Since the creation of this field of collecting, numerous guidebooks have been published detailing methods for collecting rugs. Guidebooks often contain a chapter or chapters dedicated to maintaining them. For example, E Gans-Ruedin’s The Connoisseur’s Guide to Oriental Carpets was published in 1971 and has a chapter titled “Buying and Caring for Carpets” with a subheading for “Conservation and Restoration of Rugs.” While Gans-Ruedin does not differentiate between conservation and restoration in the section, it is interesting to note that both terms are used to describe the topic. In his advice, he writes,

“The correct conservation of a rug poses hardly any special problem...as soon as the carpet shows the slightest tear or when the pile has been eaten and the warp and weft become uncovered, one must
call the services of a specialist restorer who will fill the empty space by remaking the missing knots” (Gans-Ruedin 1971, 29).

The kind of treatment suggested here by Gans-Ruedin is known as reknotting. It is a complicated and laborious method. As a fastidious collector, he is knowledgeable about the available methods, but cautious enough to seek outsider help.

George Hewitt Meyers, the founder of the Textile Museum, received a similar recommendation from the Beshir Galleries in New York in 1950. The letter suggested that Meyers repair his rugs by reweaving if he intended to resell them. The cost of reweaving could later be absorbed by the resale price and provide better profit than patching. (Wolf Green 1991, 46).

Collectors are not the only appreciators of the pile rugs’ visual appeal, but collectors are unique in that their primary concern is value. For collectors, pile rugs can be an item of investment, and restoring a pile rug can partially restore its market value. In this case, more invasive treatment may be encouraged to return the visual appearance of a rug.

While authenticity in relation to conservation can mean presenting a work in its most original form, to the collector “authenticity” might refer to authentic use. For example, tribal flat-weavings may be perceived as more authentic to the collector if they were produced for domestic use rather than tourist trade (Petillo 1992, 47). There is even more diversity among pile rugs when considering the impetus for their creation including rural domestic use, workshop production for royal clientele, and more rapid production for tourist trade. This is beyond the scope of this research, but it is important to consider in the individual treatment of a rug.
2.4 Use of a Multifaceted Approach

Many pile rugs in collections can be placed into more than one category between museum objects, artworks, and collectables. Pile rugs in museums can be items of important cultural heritage as museum objects. They can have strong aesthetics as fine art, and they can be remembered for their commercial value as collectables. The ongoing conservation of the James F. Ballard Collection of Oriental Rugs at the Saint Louis Art Museum exemplifies the complexity of the values prescribed to pile rugs.

In the pantheon of collectors, James F. Ballard stands out as for his specific interest in Oriental rugs above all other textiles. He grew to become a noted expert in rug collecting breaking new ground on the types of rugs being collected in the early-20th century. Ballard’s eye for collecting and appreciation of Oriental rugs situates himself as both a collector and connoisseur (Denny 2016). Before his death in 1931, Ballard gave a portion of his collection to the City Art Museum in St. Louis, which is today the Saint Louis Art Museum. In 2016, the museum chose to honor the gift through an exhibition of the rugs titled, The Carpet and the Connoisseur.
Rugs in the Ballard Collection entered the museum as collectables. However, their rich history at the Saint Louis Art Museum and popularity for exhibition have transformed them into signature museum objects. Additionally, the title of the exhibition suggests that Ballard had excellent visual acuity for the rugs he acquired. He appreciated their color, imagery, and craftsmanship as works of art. In Chapter 6,
which explores typical approaches in conservation, the conservation treatment of the Ballard Collection reflects a multi-faceted approach to categorizing pile rugs.

2.5 **Summary**

Conservators alone do not make decisions about these prescribed values. Researchers, curators, and directors can have differing opinions. When considering the condition of pile rug, conservators also remain mindful of the previous owners since their prescribed values can be attached to the object through previous repairs.

Lastly, while the majority of the conservation treatment reports in Chapter 6 were completed on objects in museums, it is important to remember that conservation also occurs in private practice for markets and collectors whose values may differ from those of museums.
Chapter 3

STRUCTURE

The physical structure of the pile rug exists with variation across style, material and technique. In general there are key structural differences that can contribute to the long-term preservation or deterioration of pile rugs. This chapter explains the function of the structure as it relates to common condition issues as well as conservation and restoration techniques. It is not meant to serve as instructional for either professional or hobbyist weavers but rather to provide better context for the structural conditions in Chapter 4.

3.1 Sources on Technique

In the literature of rug weaving and knotting there are two equally prominent sources. The first published source is C. E. C. Tatersall’s *Notes on Carpet Knotting and Weaving*, which was published by the Victoria and Albert Museum in 1920 (Tatersall 1969). Since then there have been multiple reprints. The second is Peter Collingwood’s *The Techniques in Rug Weaving* published by Watson-Guptill Publications in 1968 (Collingwood 1968). Both of these references offer comprehensive documentation of techniques.

3.2 Warp and Weft

The basic instrument of rug weaving is the loom. The width of the loom determines the maximum width of a rug that can be woven. Prior to weaving, the loom must be warped according the measurement of the desired rug. Warping involves
tensioning a continuous yarn into vertical parallel lines using notches in the upper and lower beams of the loom.

In traditional rug weaving, multiple weavers, typically young girls, were seated along the loom working in unison to knot rows. In Figure 2, the girls are seated on scaffolding that reaches the height of the growing rug.

Figure 2. Young Irani girls weaving a carpet while seated on a scaffold, date: 1880s-1928 (In Myron Bement Smith Collection: Antoin Sevruguin Photographs. Freer Gallery of Art and Arthur M. Sackler Gallery Archives. Smithsonian Institution, Washington D.C. Gift of Katherine Dennis Smith, 19733-1985)
Carpet weaving, like tapestry weaving, requires strong and even warp tension. During weaving, weft yarns are woven perpendicular to the warp yarn forming the ground weave (Phipps 2011, 44). The first rows of weft begin at the bottom on the rug with each additional row stacked above. After the addition of a new weft, the weaver will pack the weave structure down using a hammer comb.

3.3 Pile

Between rows of weft yarns, rug weavers create a supplementary pile weft. From a continuous yarn, the weaver moves the tail of the yarn in and around warp yarns in the pattern of one of the many known knotting techniques. After the knot is formed it is cut from the continuous yarn using a sharp knife (Phipps 2011, 44). Pile yarn can be wrapped around one, two, or three warp yarns depending on the particular knotting technique. The direction of pile slopes down toward the weaver.

The shape of a knot can either be symmetrical or asymmetrical. While neither tradition is considered superior, Collingwood proposed that symmetrical knots, such as the Ghiordes, Smyrna or Turkish knot, are more secure (Collingwood 1968, 226). Asymmetrical knotting, also called Sehna or Persian, has the ability of being tied with greater density since a function of the knot is overlap with the previously tied knot.
Density of knots can be measured in knots per square inch, or KPSI. Rugs with greater density of knots are more time consuming to produce, often considered more valuable, and structurally more stable with proper handling and storage. The diameter of the yarns can also affect the visual appearance even when KPSI is held constant.

The physical structure of pile can affect the overall appearance of the rug. The length of pile often affects the quality of its colors. Shorter pile will appear darker and more saturated. This is because the diameter view of cut yarn is darker and more saturated than the length view of the same yarn. Therefore when pile is cut short, the diameter of the yarn is more apparent component of the rug.
Similarly, symmetrical knots will appear darker and more saturated than asymmetrical knots. This is because the ends of the yarns in a symmetrical knot exit between the same warps, making them appear closer, denser, and more saturated.

Pile is typically made of wool, though there are pile rugs made of other materials such as silk. As a natural fiber, wool has variation in appearance and texture. Dyeing yarn for pile is an art as complex as weaving. It is not within the scope of this thesis to discuss the lengths of dyed wool production, besides to note that specific aspect of dyeing can affect later condition issues.

3.4 Summary

Pile rugs have long been considered reflective of the cultures in which they were produced. Similarly the techniques of rug weaving have been recognized as culturally significant. In 2010, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Intangible Heritage Convention inscribed “traditional art of Azerbijani carpet weaving” onto the Intangible Heritage List. In the nomination file, carpets themselves are honored for their use in significant life events and daily prayer. In addition, carpet weaving is honored for its connection “to daily life and customs of the communities involved” (UNESCO 2010).
Trends in conservation are pointing toward increased awareness for community stakeholders. This approach has been called people-based conservation, which considers the community and their values during the conservation of an object (Cutajar 2016, 82). By better understanding the techniques of rug weaving, conservators can make a more informed decision about their conservation treatments.
Chapter 4

COMMON CONDITIONS

Common condition issues in pile rugs can be structural, visual, or a combination thereof. The purpose of this chapter is to clarify such conditions as they relate to treatment options in conservation and restoration.

In Carol Bier’s introduction at the Carpet Conservation Symposium, she suggested that conservation of rugs needed to become more accepting of “poor condition” (Petillo 1992, 52). The goal of the conservator had evolved placing greater emphasis on “preserving evidence of the past use of the carpet” while stabilizing it for research (Petillo 1992, 52). Accepting “poor condition,” is a trend in leniency that supports minimally invasive treatment, a route that is sometimes difficult to navigate.

Some condition issues are localized like tears and holes. Others can be prominent throughout the rug such as fading, or low abraded pile.
While still a condition issue, low abraded pile is a testament to the life of the pile rug. Physical forces such as the tread of feet can abrade pile. Often in low abraded pile, the knot itself will remain intact while the tail of yarn is lost. This can cause a rug to lose its saturation of color as un-dyed weft yarns become more visually prominent. One reason for this damage is the inherent vice of the yarns themselves. The dyes used to create dark-colored yarn can lead to oxidative reactions, which damage the tensile strength of the fibers and increase vulnerability to abrasion. This can also cause embrittlement of the rug’s fibers.

Low abraded pile is concerning for collectors and museums, as abraded pile is seen as damage to the artwork. To the art historian, patterns of abrasion can be
evidence of how the object was used. Abraded pile is generally accepted as a condition for certain rugs, since abraded pile is irreversible despite best conservation and restoration methods. Other general conditions issues found on pile rugs include fading which is caused by light radiation. This kind of damage is cumulative and irreversible.

Localized forms of damage can include broken or missing warps or wefts, loss of pile resulting in holes, and tears. Warp and weft yarns are under tension throughout the weave structure. When a warp or weft yarn breaks, the area surrounding the break becomes vulnerable to further damage. A loss is the area in which an original element is missing from the pile rug. Thus, loss compensation integrates new material to an area of loss for visual compensation, structural stabilization, or a combination thereof. Broken warp and weft can lead to loss of pile if the pile is wrapped around the broken warp or being held in place by the broken weft.

Types of loss can include tears and holes. A hole can result from loss of pile, warp and or weft. A tear, unlike a hole, usually begins at the edge of the textile and spread across the fibers, however tears and holes can have similar appearances. The appearance of tears and holes exist with variety. In this compilation, rather than include an image of a one type of hole, a broad definition has been included to provide a more inclusive idea of types of loss.

In the past restorers have used many techniques to preserve pile rugs facing these conditions. Chapter 5 details typical approaches to pile rug restoration. It is important to note however, that conservators will also report on the condition of previous repairs and restoration. The condition of the rug also includes the campaigns of the restoration that appear on it today.
Chapter 5

TYPICAL APPROACHES IN RESTORATION

Whether we approve of past restorations or not, in general we should be thankful that for whatever reason, or in whatever manner and method, the restoration and care were provided. These artistic treasures have been preserved for us and for the future (Hutchinson 1991, 11).

This chapter begins with a quotation from R. Bruce Hutchinson, a contributor to Volumes 29 and 30 of The Textile Museum Journal. It speaks to a sentiment that can be found throughout this chapter, however it should be clarified that restoration is not simply a precursor to conservation. The history of conservation of pile rugs is inherently tied to that restoration and continues to be today. For this reason, conservators, Sara Wolf Green and Julia B. Swetzoff in 1990, referred to treatments in conservation and restoration, as conservation treatments and traditional treatments.

Often in conservation, the poor previous repairs to a textile are considered a burden or irreversible scar on an otherwise treatable object. Some conservators have criticized even well-integrated restoration, like that of traditional, commercial reweaving. (Petillo 1992, 49). For others restoration is not a taboo. Proponents of restoration are sometimes in dialogue with conservators.

5.1 **Restorers Cited by Conservators**

The following individuals have been chosen for their connections to conservators and for their facilitation of knowledge across disciplines. Notable American restorer, James M. Keshishian, was the former president of Mark Keshishian & Sons, a family owned Oriental carpet business based in Washington DC.
He was a rug appraiser and the company’s president for 30 years before his death in 2003. R Bruce Hutchinson in Volumes 29 and 30 of *The Textile Museum Journal* summarizes Keshishian’s six major restoration treatment types. His list of six treatments for rug repair include patching from other rugs, limited weaving, use of topically applied textile dyes, removal of partial borders to make the object rectangular, mounting the item on a separate fabric backing, and cannibalizing the rug, which means reducing its size to provide repair parts.

Figure 6. An example of a rug containing a fragment that was likely cannibalized from another rug. Found in the collection of Winterthur Museum, Garden and Library.

In researching the intersections of conservation and restoration of pile rugs, it is apparent that some of these techniques are more indicative of restoration and less of conservation. Patching from other rugs, removing borders, and cannibalizing rugs would not align with the AIC Code of Ethics, as it would disrupt original material.
However the remaining techniques of limited weaving, topically applied textile dyes, and fabric backings are similar to common techniques in conservation. Limited weaving might be likened to the reweaving done by the team at the Saint Louis Art Museum in 1988. Conservators would not typically apply topically applied dyes to adjust for fading, but may color match a fill material. Lastly, the addition of a fabric backing may prevent dust accumulation and thus be an example of preventive conservation.

It is also important to note that Hutchinson’s nod to Keshishian illustrates the flow of knowledge from restoration to conservation. The reverse, knowledge from conservation picked up by restorers, is another common narrative in conservation literature.

A restorer turned conservator who exemplifies this relationship is Heather Tetley of the Tetley workshop. In January 2009, Heather Tetley was “granted a Warrant of Appointment for Carpet Conservation to her Majesty Queen Elizabeth II,” which coincided with change “from restoration to conservation in the Royal Household when the new Royal Household brought it into line with the award-winning conservation policy of the Royal Collection” (Tetley 2009, 15). Additional training from textile conservators at the Royal Trust facilitated the workshop’s transition. The major difference in her practice, she says, is transparency. While working with fellow restorers there was a degree of secrecy and inability to “divulge methods and treatments to other restorers or to the owners” (Tetley 2009, 16). In contrast, the Tetley Workshop of conservation is pleased to openly discuss treatment and learn from conservator colleagues.
5.2 **Techniques in Restoration**

This section describes techniques that conservators and restorers have designated as uniquely restoration and not conservation, however disagreement is present. These techniques are discussed here for their significance to historic rug restoration. Techniques in rug restoration were in part modeled on established techniques in tapestry weaving. The structure of a tapestry is not unlike a rug. The main difference is function wherein the tapestry hangs on a wall and rugs are placed on the floor in traditional settings.

Kashmiring is a commercial term used to describe the replacement of pile by means of embroidery stitches. (Wolf Green 1991, 47) It is a restoration technique that involves wrapped colored yarn around warp to simulate pile. This method is similar to soumak, a flat weaving technique. Kashmiring will not create the signature look of long pile. From afar it can simulate the look of low abraded pile, which would be impossible by low pile reknitting. Kashmiring is always visible and obvious on the reverse of the rug. Sometimes patches are used to support kashmiring areas (Wolf Green 1991, 47).

Darning is a repair technique that has been traditionally common across textiles. It is used to replace warp and wefts yarns in areas of loss. In conservation, limited reweaving is fundamentally similar, however a rug restorer may be more likely to remove original material in order to simplify the repair. Darning and limited reweaving are most successful in small areas of loss (Wolf Green 1991, 47). In both techniques, if the original yarns are brittle, darning can further damage the area of loss.
5.3 **Summary**

Carol Bier, writing as the Curator for Eastern Hemisphere collections at the Textile Museum, describes a continuum of carpet condition as “always a more changing process than a permanent state” (Petillo 1992, 53). Petillo agrees with Bier building on that analogy to describe a lifespan of the rug, which includes all those who have had a hand in its repair. Textile conservation, not unlike other specializations of conservation, benefits from greater knowledge of restoration techniques. This includes not only details of the materials and techniques, but the considerations and methodology of restorers.
Chapter 6

TYPICAL APPROACHES IN CONSERVATION

In 2011, when the Metropolitan Museum of Art reopened its galleries dedicated to art from the Arab Lands, Turkey, Iran, Central Asia and Later South Asia (ALTICALSA), conservators were given the opportunity to rethink some of the theoretical concerns about the conservation of the rugs in the collection. Textile conservator, Giulia Chiostrini began by asking, “what to preserve, how to preserve, how to maintain a balance between historic and aesthetic importance, and how to consider authenticity as defined by the original material of the object” (Chiostrini 2012).

6.1 Reversibility and Loss Compensation

Reversibility and loss compensation are terms used frequently in conservation. This section will discuss briefly the use of each term. Compensation for loss is described by the AIC in the 23rd guideline as…

…any intervention to compensate for loss should be documented in treatment records and should be detectable by common examination methods. Such compensation should be reversible and should not falsely modify the known aesthetic, conceptual, and physical characteristics of the cultural property, especially by removing or obscuring original material (AIC).

It is notable that the term reversible is used in junction to describe best practice for loss compensation. Methods of compensating for loss in pile rugs include the addition
of patches or plugs, reweaving, and reknotted, some of which are more reversible than others.

Loss compensation can involve structural stabilization and visual compensation with varying levels of intervention. In Volumes 29 and 30 of *The Textile Museum Journal*, conservators, Sara Wolf Green and Julia B. Swetzof, write, “From a conservator’s most conservative viewpoint, the only important reason to compensate for loss in a textile is to provide greater stability to the object” (Wolf Green 1991, 46). Visual compensation is secondary in their opinion.

Conservators, Zoe Annis Perkins and Jeanne Brako with restorer, Robert Mann, published in Volumes 29 and 30 of *The Textile Museum Journal* an article titled, “Woven Traditions: the Integration of Conservation and Restoration Techniques in the Treatment of Oriental Rugs.” The authors of this article describe a trend in conservation as “minimalism as a way of addressing loss” that has been increasing in popularity throughout the later half of the 20th century (Perkins 2013, 13). They attribute advances in textile conservation technology to enabling conservators to work minimally. However, they encountered circumstances requiring more interventive treatment during a project that began in 1988 at the Saint Louis Art Museum treating a series of rugs in the James F. Ballard Oriental rug collection. In 1990, Robert Mann was the sole proprietor of Robert Mann Oriental Rug Restoration in Denver, Colorado. His contributions are significant as a restorer providing insight and materials to the team’s conservators. In this research Perkins, Brako and Mann are referred to as the Saint Louis Art Museum team for work completed during this conservation project.
The following sections describe categories of typical pile rug conservation treatments, particularly those described in Volumes 29 and 30 of *The Textile Museum Journal*.

6.2 **Reweaving**

Reweaving is a method of weaving new warp and/or weft yarns into a rug. The reweave can span an area of complete or partial loss. Weaving into structurally stable original material is usually favorable. Reweaving is a technique that poses risk to disrupting surface tension and visual appearance. In general, if a conservator foresees a substantial risk to the rug’s stability if he or she were to remove a restorer’s reweave, which could be considered darning, the conservator may choose to leave the repair in place.

Wolf Green and Swetzoff also consider reversibility when considering conservation reweaving. If removing the reweave in the future could damage the original material, a reweave may not be selected. (Wolf Green 1991, 48).

In the selective reweaving by the team at the Saint Louis Art Museum, old repairs were chosen for removal if they placed unnecessary stress on nearby original warp or weft yarns. Done correctly, that is reweaving with equal tension to the original warp, this can be a successful treatment. It can be preferable to patching, because it does not affect the flexibility or handling of the rug (Perkins 1991, 22).

Conserving original material is one of the goals during conservation-based reweaving. Original warp and weft yarns can be incorporated in the reweave, though they can provide unnecessary bulk that can disrupt the surface. The Saint Louis Art Museum team faced this dilemma when they encountered jagged edges and broken knots.
6.3 **Reknotting**

In treating the James F. Ballard Collection, the Saint Louis Art Museum team chose selective reknotting on original warp. Previous repairs including reknots and reweaves had faded in appearance, however a decision was made to leave in place the reweaves and only reknot specific faded pile onto the original warp yarns. The team chose to replace the knots of one specific color, because the color had faded drastically from dark blue to light grey-purple.

The visual aesthetic of reknotting can be disruptive in a number of ways. Fading is an easily recognizable disruption. Reknotting done in the early 19th century can now be shifted in color because of fugitive early aniline-dyed yarns (Perkins 1991, 13). Another challenge of reknotting is mimicking the height of the original pile. In areas of extremely low abraded pile it is difficult to reknot in a matching height (Perkins 1991, 17). One method employed by the team to simulate the appearance of low pile was to weave “continuous yarn to produce several knots” (Perkins 1991, 17). The yarn was wound around adjacent warps and then partially cut on the surface to resemble pile, as seen in Figure 7. This technique can by likened to the restoration-based technique of kashmiring, while the partial cut represents an attempt to better mimic the look of pile.
Innovations in reknottting strive to visually compensate for loss with material that is convincingly 3-dimensional and pile-like. Conservator, Gretchen Guidess, developed a method of selective pile replacement for hooked rugs. The pile in hooked rugs, as opposed to pile rugs, is structurally dissimilar. The hooked pile is created by massing loops using a hand-held hook. Loops are made of strips of fabric that are pulled through a woven substrate. However, this innovation is relevant to this research, as Guidess has overcome some of the aesthetic challenges facing conservators of pile rugs.

In her treatment of rugs at Beauport, a Sleeper-McCann house in Gloucester, Massachusetts, Guidess used needle-felted polyester felt (Guidess 2012, 125). This material is chemically stable and inert. It successfully mimicked the appearance of the original hooked pile, because the strips could be cut to a correct size and color.
matched in situ. Guidess used PROfab textile paints, and a fabric backing for the new knots to help support the structurally unstable material surrounding the loss.

6.4 Patching

Patching in rugs is a method that has been considered minimally invasive. Depending on the application of the patch it can be easy or difficult to remove. By the early 1970s it was common to choose plain-weave fabric patches similar in color to the areas of loss in order to visually compensate. Patches would be attached to the back of the rug with stitches of thread, or exhibited without attaching. In the first case patch is used for structural support and aesthetic fill, but in the second it is only aesthetic. Depending on the structural stability of the area of loss, the fabric patches may not provide enough structural support.

In Volumes 29 and 30 of *The Textile Museum Journal*, conservator, Harold F. Mailand, writes of a newly applied textile conservation process. Photo-silkscreening can duplicate a pile rug’s mirrored motif in an area of loss. The result is a printed flat weave patch that can visually compensate for pattern. This technique has risen in popularity for treatment for patterned costume, but not prevalent for pile rug conservation.

In the case of the team at the Saint Louis Art Museum, an alternative patching technique was utilized for small areas of loss. They wove individual custom patches in balanced plain weave (18x18 per square inch thread count) in several shades of wool that was prewashed and presteamed. The choice was made to use wool, because the coarseness of the fabric most similarly mimicked the course surface of the pile rug. The new custom patches were attached using a running stitch of cotton thread, and
were easily distinguishable from the original material despite the choice to use the same fiber.

Wolf Green and Swetzoff agree that flat weave patches can be insufficient in compensating for loss in pile rugs. The patches created by Wolf Green and Swetoff were referred to as “passive fills”, since the patch could be “attached between warps and weft and not through the structure” (Wolf Green 1991, 49). They were easily removable and reversible, hence the term “passive.” Wolf Green and Swetzoff created custom woven plugs for their passive fills. Their first step was to stabilize the edges of the hole using fine cotton thread and varying points of entry and exit to prevent a line of concentrated stress (Wolf Green 1991, 51). A Mylar template was created to mark out a cartoon of the knot pattern. The weaving was done on an artist’s frame to maintain appropriate tension.

Guidess also created custom inserts for her treatment of the Beauport hooked rugs. The shapes of these inserts were irregular, and she therefore calls them plugs for their ability to conform to the unique shape of each loss. The term plug has also been used to describe the process of inserting a portion of rug cut from a secondary rug. This process is sometimes referred to as “plugging” (Wolf Green 1991, 46). This is not the treatment Guidess has implemented but uses a similar term.
Guidess’ construction of the plug inserts consisted of piling polyester strips in a substrate of Monk’s cloth, which is an open, balanced, plain-weave with quadrupled cotton warps and wefts. Unlike the Saint Louis Art Museum team who dyed yarn to color-match the original pile, Guidess chose to weave with undyed polyester that could be toned to match the surrounding original material in situ. The dye chosen for this was PROfab textile paints (Guidess 2012, 129). Guidess also created plugs without pile for larger areas of loss, which are more similar to the plain-weave fabric patches associated with minimalism.

In larger areas of loss, the Saint Louis Art Museum team created another version of patches, called custom patch inserts. The inserts were created using a schematic knot-for-knot diagram with continuous warp and weft yarn that matched the unique shape of the loss. The selvedges of the custom patch inserts extended \( \frac{1}{4} \)-inch.
beyond the patch, however the authors reflected after the experience that a smaller selvedge would have been beneficial as the \( \frac{1}{4} \) inch led to a recessed and lumpy appearance in the overlapping insert and original areas (Perkins 1991, 20).

Larger fabric patches can also back patched inserts. The SLAM team used this technique on the Holbein rug by basting the knotting insert to the original material surround the loss. Then a larger fabric backing was sewn to the rug to provide additional support and prevent a concentration of stress around the knotted insert.

6.5 **Summary**

As demonstrated in this chapter, the treatment of a pile rug has typical elements, with variation for the rug’s individual needs. Techniques such as reweaving, reknitting, or patching can even be combined depending on required compensation or stabilization. Often in case studies such as these, conservators include unique challenges and successes of a specific treatment in published literature.
Chapter 7

CONVERSATIONS WITH CONSERVATORS

Practices in conservation can change rapidly, or have consistency throughout time. In order to assess typical approaches in current conservation practices and predict trends, the research of this thesis includes a comparison of treatments from conservators working in varying institutions.

7.1 Preparation

Since the nature of these interviews included asking questions of living conservators, it was determined that the research would require a submission to the Institutional Review Board (IRB) at the University of Delaware and the successful competition of the Human Subject training by the lead researcher and the thesis director. When the research was deemed exempt from further IRB review according to federal regulation, the interview guide could serve as a model for the upcoming interviews. See appendix A for Human Subjects Research Board Approval.

After the completion of the literature review, potential interviewees were chosen. Table 2 names the institutions, institution types, interviewees, and interview types included in the conservator interview series.
Table 2. Institutions, institution types, and interviewees included in the conservator interview series

<table>
<thead>
<tr>
<th>Institution</th>
<th>Institution Type</th>
<th>Interviewee(s)</th>
<th>Interview type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saint Louis Art Museum</td>
<td>Art Museum</td>
<td>Zoe Annis Perkins</td>
<td>Interview by Phone</td>
</tr>
<tr>
<td>The Textile Museum at The George Washington University</td>
<td>Textile Museum</td>
<td>Maria Fusco, Cathy Zaret, Elizabeth Shaeffer</td>
<td>Interview by Phone</td>
</tr>
<tr>
<td>Winterthur Museum, Garden, and Library</td>
<td>Historic House Museum</td>
<td>Katherine Sahmel</td>
<td>Site visit</td>
</tr>
<tr>
<td>Cathedral Church of Saint John the Divine</td>
<td>Private Practice</td>
<td>Valerie Soll, Ligia M. Fernandez, Anna Szalecki</td>
<td>Site visit</td>
</tr>
</tbody>
</table>

The conservators included in the literature review in part inspired the selection of interviewees. Zoe Annis Perkins was chosen for her contribution to Volumes 29 and 30 of *The Textile Museum Journal* and for her extensive knowledge of rug conservation. Conservators from The Textile Museum at the George Washington University were selected for their expertise and for their institution’s connection as host to the Carpet Conservation Symposium. One important note is that since the Carpet Conservation Symposium in 1990, The Textile Museum is now known as the Textile Museum at The George Washington University. Additional selections were made to diversify the types of conservation practices. Overall, the survey included 8 conservators with experiences at an art museum, textile museum, historic house museum, and private conservation.
This selection has no intention of being comprehensive; rather it is a sampling of current practices. Conservators from the Philadelphia Museum of Art and the Metropolitan Museum of Art were sent initial invitations for interviews, but declined to participate due to their time constraints. For similar reasons the inclusion of professional restorers in the interview series was not possible but would be excellent topic for further research.

In preparation of each interview, the interviewees were sent a research summary document to help guide their responses. The research summary included the scope and timeline of the research.

7.2 Considerations for Interviewing

The interviews with conservators fit the structure of a conversation or dialogue with information exchanged bilaterally. Rather than serving as a rigid survey, the interview guide was used to drive conversation and consider different topics and perspectives. When applicable, questions were phrased so as to provide broad categories of discussion and then specified to consider more details. For example, a conservator might be asked to describe a treatment with minimal intervention and then asked to describe the choice of fabric, stitches, or visibility of treatment. Every interview included a period where the conservator or conservators were asked to reflect on the changes to practice. Conservators were asked to define their own measurements of success in a treatment and consider when a pile rug may need retreatment. See Appendix B for the conservator interview guide.
7.3 Variation on Approach

Despite the variety of institution types, these conservators shared a number of opinions. It is also important to consider the unique challenges facing conservators in different practices. This section compares the kinds of approaches discussed in the interview series by grouping commonalities into three categories of approach. People-based approaches focus on the community of stakeholders involved in the conservation of pile rugs. Values-based approaches consider how conservation affects interpretation of the textile and its prescribed values. Lastly, material-based approaches consider physical aspects of conservation, and namely preventive conservation. The three categories of approach are modeled on categories defined by Cutajar et al in “A Significant Statement: new Outlooks on Treatment Documentation” (Cutajar 2016). The purpose of these categories as proposed in the article and in this research is to allow for discussion about conservation goals beyond simply arresting physical damage. When conversation is restricted to the material-based approach, some “decisions are difficult to communicate, and the underlying points of contestations challenging to identify” (Cutajar 2016, 83). The authors of this article propose that conservators consider multiple approaches when writing a statement of significance.

Table 3 compares similarities and differences in approaches by institution type. The responses of a particular institution in the interview series are not indicative of all institutions of that type. Moreover, the absence of an approach from an interview does not suggest that the institution does not practice that approach. The data in Table 3 is reflective only of the responses given during the duration of the interviews.
Table 3. People-, values-, and material-based approaches in pile rug conservation, an X indicates the presence of a topic during an interview.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Institution Type</th>
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<tbody>
<tr>
<td></td>
<td>Art Museum</td>
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<tr>
<td>People-based Conservation</td>
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<tr>
<td>Members</td>
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<td>Visitors</td>
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<tr>
<td>Clients</td>
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<tr>
<td>Curators</td>
<td>X</td>
</tr>
<tr>
<td>Restorers</td>
<td>X</td>
</tr>
<tr>
<td>Values-based Conservation</td>
<td></td>
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<tr>
<td>Exhibition Driven</td>
<td>X</td>
</tr>
<tr>
<td>Affected by Markets</td>
<td>X</td>
</tr>
<tr>
<td>Levels of Intervention</td>
<td>X</td>
</tr>
<tr>
<td>Materials-based Conservation</td>
<td></td>
</tr>
<tr>
<td>Storage Strategies</td>
<td>X</td>
</tr>
<tr>
<td>Reversibility</td>
<td>X</td>
</tr>
<tr>
<td>Retreatment</td>
<td>X</td>
</tr>
<tr>
<td>Material Sourcing</td>
<td>X</td>
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</tbody>
</table>
The subcategories within peoples-based conservation consider the stakeholders that were discussed during interviews. This includes members, visitors, clients, curators, and restorers as audiences and influencers of pile rugs. In values-based conservation, the subcategories indicate whether a certain value-based topic was addressed in the interview. Judgments based on value are made during exhibition, sale, and treatment of the rug, thus the propensity for conservators to mention exhibition driven treatments, markets for rug sales, and varying levels of interventive treatment. Lastly, the subcategories for material-based conservation include popular topics related to the pile rug as a physical object. This includes strategies for storage, reversibility of treatment, ability or inability to retreat, and sources for conservation materials such as yarn.

In order to further extrapolate the responses from the interviews, additional information about the interviewees’ backgrounds and their institutions are described in the following sections.

7.4 The Saint Louis Art Museum

Zoe Annis Perkins has recently retired from the Saint Louis Art Museum. In conversation with Perkins, she identified herself as an art conservator with a primary focus on textile artworks. Today she remains a fellow of the AIC. The Saint Louis Art Museum is located in St. Louis, Missouri. According to the museum’s home page it is a collecting institution that is “preserving the legacy of artistic achievement for the people of St. Louis and the world.” As an art museum, the collection contains a variety of media including pile rugs with exceptional examples found within the James F. Ballard Collection of Oriental rugs.
Interviewing Perkins provided insight about the ongoing conservation efforts for the Ballard Collection. After the treatment described in Volumes 29 and 30 of *The Textile Museum Journal*, conservators at the Saint Louis Art Museum have not retreated the Ballard rugs on the scale of the earlier campaign. Prior to reexhibition, rugs have been wet cleaned for photodocumentation, in order to improve their visual appearance on exhibition and in publication.

Perkins concluded that timing and collaboration was key to the success of the treatment beginning in 1988. She further explained that the yarns used to color match during reknotting came directly from Robert Mann’s personal “palette” of rug restoration yarns. Compared to the others interviewed, Perkins was the only conservator to discuss direct communication and flow of materials with a restorer in order to achieve better visual compensation. Mann also provided additional information about the nature of certain techniques. The team was able to better allocate funds and labor toward methods that would provide the most improvement for stabilization.

7.5 **The Textile Museum at the George Washington University**

According to the mission statement found on the museum’s home page, “The Textile Museum expands public knowledge and appreciation- locally, nationally, and internationally- of the artistic merits and cultural importance of the world’s textiles.” Though the conservators at the laboratory of the Textile Museum at the George Washington University were not directly involved in the Carpet Conservation Symposium in 1990, the institution’s history and conservators’ recent experiences were discussed in the a phone interview with the lab. While interviewing its conservators, information was gleaned through a phone conversation on speaker so
that the interviewer could hear responses from all three conservators at the same time. Chief Conservator, Maria Fusco, and Associate Conservators, Cathy Zaret and Elizabeth Shaeffer discussed typical approaches to rug conservation. Each conservator is a member of AIC.

Of the all the interviews, this conversation reflected the most minimal approach to conservation, where level of intervention was weighed during most aspects of the conservation. Techniques in structural stabilization included laid and couching stitches around broken warp, small discrete patching, and partial lining. When choosing minimalist options, the conservators reflected three major concerns. The first is to provide the object with just the right amount of support and avoid disrupting the tension within the weave. The second is to compensate for the right amount of visual loss and consider if compensation is in fact necessary. Lastly, and perhaps most importantly, the conservators are conscious of time constraints and exhibition deadlines. Many of the minimalist approaches, while also successful for other reasons, required the right amount of time.

The second major theme of the interview with the laboratory at the Textile Museum at the George Washington University was museum membership. Fortunately, fans of pile rugs, including collectors, form a significant portion of the museum membership. In a museum world where exhibition drives conservation, pile rugs will continue to become eligible for conservation when they are due for exhibition. This effect is similar at the Saint Louis Art Museum, but gratitude towards members was a prominent theme in conservation with the Textile Museum at the George Washington University.
7.6 Winterthur Museum, Garden, and Library

While all museum conservation shares some similarities, the conservation of the collection in a historic house museum poses its own unique challenges. Kate Sahmel is an Associate Conservator at Winterthur Museum, Garden, and Library. Also known for its graduate programs in Art Conservation and American Material Culture Studies, Winterthur Museum, Garden and Library is the premier collection of American decorative arts as listed on its website. Unsurprisingly, pile rugs make up some of the floor coverings in the house’s rooms. In conversation with Sahmel, she made note that historic house museums are one of the few museum contexts in which a rug can be viewed in original context, on the floor. In exhibition in art or textile museums, pile rugs are sometimes exhibited vertically or on a slanted mount. Exhibition style is beyond the scope of this research, however Sahmel presented an important difference within the historic home. Visitors are more likely to commit accidental or intentional touching of the rug either by feet or hands when the rug is positioned on the floor and their tour crosses the room.

Sahmel was one of the only conservators to describe a treatment to a pile rug’s fringe. In this treatment, she attached a piece of shear silk crepeline along the rug’s fringe. This is an area that can be damaged by the tread of feet near the rugs perimeter. The transparency of the silk crepeline means it did not affect the visual appearance of the fringed edge, but could provide the structural support to the weakened yarns.

Sahmel also recalled conserving a rug while still a student in the Winterthur and University of Delaware Program in Art Conservation. Conservation of a pile rug done by a student was another theme mentioned in an interview with the laboratory at the Textile Museum at the George Washington University. The conservators interviewed explained that typically a student, who perhaps had a different schedule or
commitments than the staff, could perform lengthy treatment. The conservation of pile rugs in all their uniqueness and complexity has been educational as textiles for treatment.

7.7 **The Cathedral Church of Saint John the Divine**

Conservators in private practice are the last category in Table 3, however the Cathedral Church of Saint John the Divine would not be typical of private practice. As part of the mission of the Cathedral, the textile laboratory cares for both the collection of the Cathedral and the collections of private clients including individuals and other institutions. The textile laboratory is a program of the Cathedral, but its work with clients can be likened to a regional conservation center. As this research considers the relationships between its conservators and clients, they have been grouped within a category of private practice. Their treatment of pile rugs would more analogous to this category.

In an interview at the textile laboratory’s conservators, Valerie Soll, Ligia M. Fernandez, and Anna Szalecki shared their insights on pile rug conservation. One common theme among the conservators was the importance of communication with clients and providing multiple treatment options. Options were usually scalable in expense, time, and labor, but also level of intervention. These factors are inherently related as lengthy treatment in number of hours contributes to a costly treatment option.

These conservators were the most eager of all the interviewees to discuss the impact of restoration on the field of conservation. Terms such a darning and reweaving, soumak, Kashmiring, and reknotted were used and well understood by the
Cathedral’s conservators. The importance of an understanding for traditional methods in weaving and restoration was major topic of conversation.

Figure 9. Interviewing conservators (from the left), Valerie Soll, Ligia M. Fernandez, Anna Szalecki at the Textile Conservation Lab at the Cathedral Church of Saint John the Divine. Courtesy of Marlene Eidelheit.

7.8 Comparison of Treatment

Unsurprisingly the art museum, textile museum, and historic house museum share many commonalities. Firstly, each conservator discussed exhibition driven conservation. These institutions were more likely to have a curator request that a rug received treatment and have collaboration between curatorial and conservation departments. Conversations with museum conservators also included discussion of storage strategies as part of the rug’s overall conservation treatment.
A false conclusion that could be made about museum conservation is that their conservators would be more concerned about the possibility of retreatment than conservators in private practice. However, this is a myth. The conservators working for clients were just as likely to consider the possibility that the rug will need retreatment. Conservator, Ligia Fernandez, considers her treatments to be successful if a future conservator will approve of her decisions. In private practice it is not necessary for a rug for to be returned to the same laboratory for additional conservation, but that does not deter conservators from considering the future of the rug.

7.9 Summary

One challenge of the interview series related to the nature of the conversations. When analyzing the responses, it was clear that conservators use typical materials and techniques, such as types of fabric and stitches. Determining which treatments could be called typical was more challenging. Variation in treatment types is directly related to the strong variation in pile rug’s conditions. Built into the ethics of conservation is respect for objects as individuals and providing unique, often specialized care. Interviewees reiterated that treating a pile rug is a case-by-case basis.
Chapter 8

CONCLUSIONS

The goals of this research included a literature review of published case studies from 1990 to present and a subsequent conservator interview series. To conclude the research, the material found in the literature is compared to the responses from conservators both to summarize broad trends in pile rug conservation and to reflect on changes to practices.

8.1 Building a Consensus

The goals of the Carpet Conservation Symposium were “to try to define the current level of knowledge about the treatment of rugs, to quantify the techniques being used, and to evaluate whether or not a consensus should be built on the ethics and standards of this discipline” (Wolf Green 1991, 5). At the time of symposium no consensus was built on the conservation of pile rugs, but the contributions to Volumes 29 and 30 of The Textile Museum Journal laid the groundwork for what might be considered.

The articles placed emphasis on understanding the history, construction, and condition of the pile rugs, and to consider rugs from a variety of approaches. “A Significant Statement: new Outlooks on Treatment Documentation” by Cutajar et al dates to 2016, but its approaches of people-, value-, and material- based conservation lend themselves well to thinking about the significance of pile rugs. Earlier chapters of this research consider a variety of social significances, the construction and structure,
and the physical condition or damage. From the interview series, contemporary trends that support minimalism for pile rug conservation value these approaches during consideration for treatment options.

8.2 Traditional and Contemporary Practices

Looking broadly at trends in traditional and contemporary practice, the conservation of pile rugs has deviated from the history of restoration. However, the presence of restoration still remains on many rugs. Pile rugs were first restored alongside tapestries, and today in museum collections continue to be treated by conservators who treat other textiles.

Pile rugs in their unique structure and appearance continue to challenge conservators. In the literature and interview series there is greater experimentation in new means of visual compensation rather than structural stabilization. Methods of stabilization are effective and trusted, and conservators are still seeking new methods for visual compensation. For example, the visual appearance of low pile is still difficult to mimic. This research considered the fact that experimentation with structural stabilization may be occurring in laboratories but that conservators are less likely to publish on the subject for any number of reasons. The interview series confirmed that conservators are relying on trusted techniques such as support patches, partial or complete lining, and strategic laid and couching stitches. Stabilization of pile rugs is more similar to other forms of textile conservation, and therefore textile conservators find it familiar and utilize familiar techniques. The appearance of pile is unique compared to other textiles, and so conservators continue to experiment.

Another conclusion from the interview series and literature review is a matter of self-identification. Conservators who conserve pile rugs in the literature and
interviews think of themselves firstly as textile conservators, with the exception of some conservators at the Cathedral Church of Saint John the Divine who identify as tapestry conservators primarily. In contrast, restorers in the literature refer to themselves specifically rug restorers. Therefore, while both professionals share some techniques, rug restorers restore exclusively rugs, whereas pile rug conservators treat many types of textiles.

8.3 Shared Resources

One question from the conservator interview guide asked conservators to consider rug conservation resources. Conservators were asked where they looked for advice during a treatment. Many responses included a form of personal communication, typically with other conservators in the laboratory. Other resources included conservation articles. During interviews with the Cathedral Church of Saint John the Divine and The Textile Museum at The George Washington University, conservators cited Anne Ennes article, “The Stabilization of Edges and Ends: Gradations in Intervention” as useful. Of all the articles in Volumes 29 and 30 of The Textile Museum Journal, Ennes’ article is the only to focus specifically on the edges and ends of rugs. Her detailed diagrams of overcast, cross, blanket, ladder, couching, and chain stitches are specific to rug conservation. Conservators today continue to find it a useful resource.

Other references to articles from Volume 29 and 30 The Textile Museum Journal can be found as recently as 2012. Giulia Chi ostrini in “Differing Interpretations of the Authenticity of an Ushak Carpet from the Metropolitan Museum of Art” includes the article by the Saint Louis Art Museum team from The Textile Museum Journal in her article’s references. Chi ostrini’s footnotes explains that the
Saint Louis Art Museum team’s treatment preserved the aesthetic value of the objects, therefore in reexamining the authenticity in the Ushak Carpet, Chiostrini was interested in how conservators had previously incorporated theoretical conservation into the choices for treatment (Chiostrini 2012, 47). Both Chiostrini and the Saint Louis Art Museum team emphasize the importance of documentation as proper documentation can help conservators undo treatment if it becomes unfavorable in the future.

8.4 Summary

The scarcity of literature published on pile rug conservation since the Carpet Conservation Symposium and subsequent publication of *The Textile Museum Journal* led this research to consider best practices in contemporary conservation laboratories. Minimal and trusted techniques, performed in time-sensitive, exhibition-driven treatments are the general trend in pile rug conservation. Structural stabilization and visual compensation are both major concerns, however conservators also weigh the necessary level of intervention for each. Conservators of pile rugs are responsible for many other types of textiles, but are aware of the unique challenges of conserving pile rugs. In the future of pile rug conservation, conservators from the interview series are interested in how public and membership interest in pile rugs will affect their exhibition. Conservators at the Cathedral Church of Saint John the Divine are also considering how markets for antique rugs will affect collector’s propensities to seek conservation. Lastly, some conservators from the interview series and Chiostrini are considering how measures of authenticity will change over time and how reversibility in treatment can help pile rugs adapt if ideas of authenticity change in the future.
This research hopes to serve as a compilation on the conservation and restoration of pile rugs in order to examine current best practices. This compilation serves two similar groups. The first group is conservators who are currently conserving pile rugs and are interested other contemporary approaches. The second group is future conservators, who will continue the necessary work of reexamining best practices in pile rug conservation. This research serves both as a compilation of current best practices, and a point of entry for further research.
REFERENCES

SOURCES ON PILE RUG CONSERVATION


**SOURCES ON CONSERVATION THEORY**


**SOURCES ON PILE RUG HISTORY AND STRUCTURE**


Appendix A

HUMAN SUBJECTS RESEARCH BOARD APPROVAL

DATE: November 27, 2018

TO: AnnaLivia McCarthy
FROM: University of Delaware IRB

STUDY TITLE: [1243298-1] Compilation on Pile Rugs: Uniting Restoration from Current Conservation Practices

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: November 27, 2018

REVIEW CATEGORY: Exemption category # (2)

Thank you for has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.

cc:
Appendix B

CONSERVATOR INTERVIEW GUIDE

1.) Can you state your name, and current position or title?

2.) Are you a conservator? Have you ever identified as a restorer?

3.) Where did you train as a conservator?

4.) Are you a member of AIC?

5.) Have you ever worked to conserve a pile rug? When? Where? If the interview has conserved many rugs, ask to focus on a single experience initially?

6.) Can you describe the condition of the rug upon initial examination?

7.) What were your considerations about the rug’s condition?

8.) How would you describe your approach to choosing a treatment plan?

9.) Where or to whom did you look for advice during the treatment of the pile rug?

10.) How do you see your treatment strategy in relation to other known strategies? (For example, radical, consistent, experimental, traditional)

11.) Please describe the condition of the rug post treatment

12.) How do you define success in this treatment?

13.) Would you do anything differently given a chance to retreat the rug?

14.) Are there any other treatments that you would like to talk about?

15.) Are there any insights that you wish to share about the preservation of pile rugs?