

ANDEAN ARCHAEOLOGICAL FEATHERWORK AT THE MILWAUKEE PUBLIC
MUSEUM: A CASE STUDY IN RESEARCHING POTENTIAL CONTEXT FOR
LIMITED-PROVENIENCE ARTIFACTS

by

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ABSTRACT
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Under the Supervision of Professor Jean Hudson

The Milwaukee Public Museum (MPM) has a collection of 134 archaeological Peruvian featherworked items accessioned in the last century with minimal provenience information. The collection is composed primarily of feather fans and ornamental devices with the remainder being sections of tunics and smaller apparel items. Due to the long-standing prevalence of grave looting in Peru and subsequent sale to collectors, many ancient Andean examples in modern museums are bereft of contextual information. Archaeological collections with limited excavation provenience may be viewed as having less research potential. However, the artifacts themselves may carry indications of their original context. As a result, limited-provenience collections can still be used to further our knowledge using a combination of research and analysis techniques.

This thesis uses the following analytical approaches to study the MPM Peruvian archaeological featherwork collection: 1) literature review of relevant featherwork, textile, art history, and archaeological studies; 2) consultation with scholars and other experts; 3) grouping and categorizing the artifacts in the collection by structural commonalities; 4) detailed examination of the MPM artifacts' raw materials and methods of construction; 5) comparison to extant featherwork collections in other museums; and

6) use of ethnographic and ethnohistorical studies of similar objects. Special emphasis and analysis is focused on the fans, plumes, and headdress pieces as these types of artifacts have received less attention in prior studies.

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CHAPTER 1: INTRODUCTION

The Milwaukee Public Museum (MPM) has a collection of 134 archaeological Peruvian featherworked items composed primarily of feather fans and ornamental devices with the remainder being sections of tunics and smaller apparel items. The artifacts in this collection were accessioned in the 1960s with minimal provenience information. Archaeological collections with limited provenience may be viewed as having less research potential. However, the artifacts themselves may carry indications of their original social and cultural associations in the form of raw materials utilized, manufacturing techniques, and details of style. These may provide avenues for the reconstruction of the original archaeological context of such collections.

Featherworking

Using bird feathers to decorate or create an object is known as featherworking. It is a beautiful, but rather ephemeral form of artwork that has survived only rarely from prehistoric or early historic contexts. While feather craft had its origins in many early cultures it is still practiced today in places as diverse as the Amazon basin, Hawaii, and by a few Native American groups in North America (Kensinger 1975:69; Howard 1991:50; Kensinger 1991b:40; H. King 2012b:3). The time-consuming effort required to obtain the feathers and the artistic energy involved in producing these adornments suggest that featherworked artifacts held special meaning in the societies that produced them.

Aguilar-Moreno (2007:334) wrote that Aztec featherworkers were described in Sahagún's *Florentine Codex* as a specialized artisan class that lived in designated

neighborhoods and were structured around household units that included masters and apprentices. Less is known about the social roles of Andean featherworkers, although Andean cultures have been prolific creators of technically sophisticated textiles and amazing feathered regalia for millennia (H. King 2012a:207). While feathers and other organic materials are generally not found intact in most archaeological contexts, the extremely arid weather along the south coast of Peru has aided in the survival of many such objects, with colors and designs still bright and recognizable (Emmerich 1969:5; Dwyer and Dwyer 1975:146; Reid 1990:7; Bruhns 1994:29-30; Stone-Miller and McEwan 1991:53; Brinckerhoff 2000:4; Giuntini 2006:1; Wheeler 2006:2).

There is evidence of close to three thousand years of featherworking throughout the Central Andes practiced by multiple cultures (H. King 2012b:14). James Reid (2005:10) has suggested that ten or more Pre-Columbian cultures of the Central Andes created textiles and featherwork dating from roughly 1,000 BC through the Spanish conquest. These include Chavin from the northern highlands, Moche, Huarmey, and Chimú from the north coast, Chancay from the central coast, Paracas, Nasca, and Chincha/Ica from the south coast, and Wari, Tiwanaku, and Inca from the central and southern highlands. Trade, exchange, and religious or political influence (Candler 1991:8; Greene 1991:17; Reina 1991:xv; Pasztory 2008:2) can impact local material culture adding to the complexity of studies of these groups and their artifacts. The map below (Figure 1) shows the general coastal and highland regions of Peru. More detailed maps showing cultural areas follow in succeeding pages.



Figure 1: Map of Peru showing general cultural regions mentioned in text, after Townsend 1992:260

In the 1900s museums were the recipients of many Andean featherwork collections including feathered fans, headdress pieces, mantles/tunics, miniature textiles, coca bags, and other feather-adorned artifacts, donated by wealthy and well-travelled patrons.

Unfortunately, due to the long-standing prevalence of grave looting in Peru, many ancient

Andean examples donated to museums arrived bereft of their archaeological contextual information. This has left many fascinating, but unprovenienced pieces sitting in museum storage or displayed with unspecific origins. Although separated from their original contexts, these museum collections may still carry much meaning and careful study may help parse out additional scholarly knowledge of prehistoric cultures.

Museum curators have had to employ numerous methods in their attempts to determine possible provenience of such artifacts. Many early studies of featherworked pieces have viewed the items from the perspective of art or art history with an emphasis on design, color, and display. More recent efforts have focused on materials, construction methods, cultural imagery, comparison to ethnographic and ethnohistoric accounts of South American cultures, and identification of feathers/bird species through the expertise of ornithologists (O'Neill 1984; Berdan 2006; Giuntini 2006).

For example, M.E. King (1978:89) an anthropologist specializing in Pre-Columbian textiles and museums, suggested detailed studies involving the textile itself (selvages, warp, and weft), structure of the yarns (spin and ply), types of fibers used (animal, cotton, other plant), and any chemicals used such as dyes and mordants. She proposed that cultural signatures can be found through such research. Similar approaches could be used for non-textile items such as feather fans and headdresses.

Kopytoff (1986) suggested an approach he described as creating a “biography of things.” Much as anthropologists and ethnographers try to recreate biographies of people, research into objects looks for information on status, period and culture. A focus on where objects came from and who made them, “ages” or periods in an object’s “life” along with associated cultural markers, and the different uses for an object through its life all provide

ways to bring clarity to objects that might otherwise remain obscure. (Kopytoff 1986:66-67).

Through studies of materials and construction, and research into an object's cultural history, identification of cultural and archaeological associations for limited-provenience artifacts can be determined. Published texts with diagnostic comparisons of materials, technologies, techniques, iconography, cultural indicators of status, and grave contents may also shed light on possible origins for these mystery artifacts in museum collections.

Research Problem Case Study Collection

The Milwaukee Public Museum (MPM) has a collection of 134 archaeological Peruvian featherworked items which have not been previously researched. The collection is composed primarily of feather fans, headdress pieces, or decorative objects (Figure 2, Figure 3, and Figure 4); pins, plumes, or sticks (Figure 5); and portions of tunic-style garments and other smaller apparel items (Figure 6 and Figure 7). This diverse selection of items is the focus of this thesis.



**Figure 2: Examples of non-textile decorative objects
MPM Catalog #A52207-A52208, A52213-A52216**



**Figure 3: Examples of non-textile fan-shaped decorative objects
MPM Catalog #A52226, A52231, A52224, A52227**



**Figure 4: Example of non-textile fan-shaped decorative object
MPM Catalog #A52244**



**Figure 5: Examples of non-textile decorative objects:
pins or plumes MPM Catalog #A52202-A52203**



**Figure 6: Example of larger featherworked textile:
garment fragment MPM Catalog #A52272**



**Figure 7: Example of smaller featherworked textile:
smaller apparel item MPM Catalog #A55000**

**Examples of the variety of artifact types in the MPM archaeological featherwork collection
(Accessions #18047 and #20517) All photos taken by Diane Newbury.**

The Whyte Collection and Its Donors

All of the items in the collection used for this study came to the MPM via Malcolm K. Whyte, a prominent Milwaukee attorney from 1920 until the time of his death in 1967. Whyte donated approximately two thousand Andean artifacts including ceramics, metalwork, textiles, featherwork and other materials to the Milwaukee Public Museum. The donations occurred in two accessions, first in 1960/1961 (accession 18046) and later in 1967 (accession 20517). Lee Parsons wrote an article about the first accession collection for a 1962 issue of *Archaeology* magazine and referred to MPM accession 18046 as “The Whyte Collection” (Parsons 1962:146).

The donor and his wife Bertha Kitchell Whyte were described in articles and obituaries in the Milwaukee Journal/Sentinel newspaper archives as active participants in the local Milwaukee community, with special emphasis on art organizations. According to Mr. Whyte’s obituary in the November 10, 1967 Milwaukee Sentinel, he was involved in local art schools, museums, and art centers along with other area charitable organizations. He served as president of the board of trustees for the Layton School of Art for 13 years dating from the late 1940s and was general chairman of the 1962 building fund drive for the Elvehjem Art Center on the University of Wisconsin – Madison campus. Bertha Whyte was a painter and silversmith and published books on art and history according to her obituary in the December 30, 1981 Milwaukee Journal. An article in the December 3, 1964 Milwaukee Journal quoted Bertha Whyte as saying that the couple’s interest in Pre-Columbian art began when they attended a 1957 lecture on South American art and that they made their first trip that same year to see such art firsthand.

Additional trips to South America occurred over the course of the next seven years culminating in the publication of Bertha Whyte's book on Spanish colonial art and architecture titled *Seven Treasure Cities of Latin America* published in 1964. The seven cities discussed in her book are in Central and South America with two, Lima and Cuzco, in Peru, although she made no reference to anything Pre-Columbian. Nonetheless, given the time spent in or near Lima and Cuzco for her research, it is possible that the Whytes may have acquired their Pre-Columbian collections in these vicinities.

Although the newspaper articles do not indicate when the Whytes obtained their Pre-Columbian Peruvian artifacts, it is logical to assume it must have occurred sometime between their first trip to South America in late 1957 and the time of the donations to the MPM in 1960/1961 (accession 18046) and again in 1967 (accession 20517), the year of Malcolm Whyte's death.

The Whyte Collection and Possible Origins

Parsons (1962:148) described The Whyte Collection (accession 18046) as including "about five hundred pottery vessels, seven hundred textiles (largely fragmentary), one hundred examples of feather work, and over two hundred items of other materials." The 1967 donation (accession 20517) was not described in such detail, but also included a variety of materials such as textiles, ceramics, bone, wood, metal, and some featherwork pieces. Between the two accessions, featherwork comprised approximately 7% of the total collection.

The catalog entries for the earlier accession (18046) listed "Peru / South Coast" in the "Where Collected" column for the featherworked items. Featherwork in the later accession (20517) was catalogued with either "Peru" or "Peru / South Coast" for the

“Where Collected” location. Parsons (1962:146) described the Whyte Collection as spanning from the first millennium BC through the Spanish Conquest, and including cultures of “Paracas, Nazca, Coastal Tiahuanaco, Chinchu, and Inca.” In the same article, he said that the collection originated “for the most part in the Ica Valley” based on comparisons to “similar pieces of known provenience in other collections” (Parsons 1962:146). Unfortunately, Parsons did not specify what other collections or artifacts were used in this comparison nor which of the Whyte items were compared.

One possible source for his theory of Ica Valley origins can be found in the MPM archives (copies of all referenced documents are in Appendix A). On June 2, 1961 John H. Rowe, an American archaeologist known for his research on Peru, wrote a letter to Lee Parsons at MPM replying to Parsons’ request for help in identification of a number of ceramic artifacts in the Whyte Collection. Rowe stated “I suspect from the appearance of your specimens that they are probably from the Ica Valley...” and included an additional page of predominately handwritten notes dating the ceramic artifacts into Ocucaje 8 and 9 phases from the Ica Valley with Ocucaje 9 described as “contemporary with the Cavernas burials at Paracas.”

An additional set of documents in the archives are from Junius B. Bird who performed a summary valuation and inventory of the 18046 accession portion of the collection, dated February 16, 1961. Few details are given, but in the inventory summary Bird listed multiple cultures for the ceramics and textiles. The featherwork is listed only as a single line item for valuation with no other information. Bird’s inventory listed cultures for the ceramics as: Paracas, Nazca A and B, Middle Period (Nazca Y, Huari-influenced, and Coastal Tiahuanaco), Ica, Central Coast (Chancay), Chimú. Chinchu was handwritten next

to Ica, although it is uncertain who made that note. Bird's inventory listed the following cultures for the textiles in the collection: Paracas was listed with a question mark, Nazca A, Nazca B (late Nazca), Middle Period (Nazca Y and Coast Tiahuanaco), Ica (Late Intermediate), Inca (Late), Post Conquest, and Central Coast. Thus although Bird did not focus on the featherwork, his evaluation of the collection in general opens the possibility of a wide range of cultures or cultural influences beyond the simple accession location of "Peru/South Coast" and this in turn increases the value of a careful evaluation of the possible cultural affiliations of the featherworked items on an individual basis.

The Whyte Collection was described as including a variety of materials and cultural sources, spanning much of the known Pre-Columbian cultures and time periods. The Ica Valley as a source for a number of the artifacts could be a starting point for consideration of the cultural context of the featherworked pieces. Nonetheless, it was clear as I began this project that no Andean Pre-Columbian culture could be eliminated until I completed the study of the artifacts themselves.

Goals of the Thesis

This study attempted to answer two primary sets of questions:

- A. Time Period and Culture: Do featherwork artifacts contain discernible indicators of cultures, regions, and time frames that can be used to reconstruct lost provenience? If so, which artifact details have the most diagnostic potential?
- B. Artifact Function: Do featherwork items contain observable details that provide information about their original function or type of use? Can

prehistoric iconography and ethnohistorical or ethnographic sources contribute to such interpretations?

Appropriate to both primary goals, the research process included a detailed literature review regarding known Pre-Columbian Andean cultures as well as relevant featherwork, textile, art history, and archaeological studies. The process also incorporated comparisons to related collections in other museums, consultation with experts and scholars, reviews of culture-specific Pre-Columbian iconography, and ethnographic and ethnohistorical studies of similar objects. Concurrently, an examination and detailed description of the MPM collection's materials and their methods of construction was completed. The artifacts were then evaluated against the accumulated evidence for cultural, regional, and temporal indicators.

To realize the second goal of the thesis, which was to identify potential artifact functions, an examination and description of the featherworked decorative items in the collection was performed. While feather fans and similar decorative items are common Pre-Columbian Peruvian artifacts in museum collections (H. King 2012b:26), there has been very little research published on these objects. In order to expand the scholarly knowledge of this subject and material, the project included descriptions and analysis of the non-textile featherworked pieces such as fans, plumes, and similar decorative items for construction techniques and possible function or use.

Assumptions

Assumptions incorporated for this study were that the artifacts came from Peru and from somewhere in the "South Coast" region as stated in the accession records. This

assumption seems reasonable based on other objects such as ceramics and metalwork within the related accessions that have been previously researched (Parsons 1962:146). Additionally, it was assumed that all objects were originally removed from burial contexts before being sold into the antiquities market in the first half of the last century. Given the region's extensive history of looting of similar archaeological materials from burials and sales to collectors this is also a plausible assumption.

Limitations

This research project had certain limitations in keeping with MPM policy concerning their collections. My analysis was restricted to non-destructive techniques with only a few exceptions. Those exceptions included taking unobtrusive samples of fur from four artifacts (catalog #A52203, A52204, A52217, and A52218) for identification of the species represented and minute (less than 0.2 cm) samples of yarns taken for microscopic verification of camelid fibers.

Expense, specialized technical training, and the availability of specific types of laboratory facilities also constrained the types of analysis available to my project. Nonetheless, through the generosity of individuals at MPM, the Racine Zoo, Animal Acres Llamas, the United States Fish and Wildlife (USFW), and scholars from Cornell University, UCLA and UW Green Bay I was able to access materials for analytic comparisons, high-powered microscopes to observe structural details, and expertise beyond my own abilities.

While travel to museums in Peru with archaeological featherwork collections was not possible, I was able to visit museums in the United States to closely study similar

collections. These included the Metropolitan Museum of Art, the American Museum of Natural History, and the Brooklyn Museum. Also, while not fluent in Spanish I was able to interpret some basic articles and to contact and communicate with scholars affiliated with Peruvian studies and museums to augment that portion of my research.

All of this, plus the time and patience of a large number of experts in related fields (see the Acknowledgements section for a thorough list) have helped to overcome many of the limitations noted above.

Thesis Organization

This thesis is organized as follows: Chapter 2 presents background material on featherwork in general, Andean archaeology, use of museum collections to further scholarly studies, and a review of major aspects of Andean featherwork segregated by sub-categories of artifact type. Chapter 3 delineates the research materials and methods used. Because of the diverse nature of the artifacts the next chapters are segregated according to two broad categories of featherworked artifacts, textile and non-textile items. Chapter 4 details potential lines of evidence and provenience indicators for Andean featherworked textiles and non-textile decorative items. Chapter 5 presents a general overview of the results and analysis of the featherworked textiles in the MPM collection highlighting a few specific examples from the collection and including information derived from comparable extant collections elsewhere. Chapter 6 presents the results and analysis of the featherworked non-textile decorative articles found in the MPM collection highlighting a few specific examples from the collection and including information derived from comparable extant collections elsewhere. Chapter 7 summarizes my conclusions and offers recommendations for future research.

CHAPTER 2: BACKGROUND AND LITERATURE REVIEW

This chapter presents background information on featherwork in general and an overview of those Andean cultures and the associated geography considered relevant to the study of Pre-Columbian featherworked artifacts. Also covered are introductions to related aspects of Andean textile production including featherworking on textiles, featherworking on non-textile objects, an overview of materials known to have been commonly used in the production of Pre-Columbian featherworking, and finally a brief discussion of the use of museum collections to further scholarly studies.

Featherwork has been studied by a variety of scholars in diverse academic areas. For my purposes, the academic fields of archaeology, art history, museum studies, plus ethnohistorical and ethnographical studies were most useful, with each field offering different contributions to the overall knowledge. When attempting to identify animal-based materials used in the artifacts the fields of ornithology and biology proved helpful.

Museums, particularly art museums and natural history museums, often employ scholars to create exhibits, write exhibit catalogs, and study the objects in their collections.

Additional research comes from archaeological reports when one or more featherworked pieces are found in original or archaeological context, but these are unfortunately less common. It is primarily through archaeology and ethnohistory that we have a sense of the background of time and space and cultural identities. Art history specialists and museum curators offer insights into broad categories of material culture, allowing us to see patterns or trends associated with the construction, colors, materials, and other traits discernible in the artifacts themselves. There are a few scholars who appear relatively

often in the published literature on ancient featherwork and related areas. Those scholars and authors, by area of expertise, are listed below.

- Archaeology: Junius B. Bird, Ann H. Peters, Donald A. Proulx, Helaine Silverman, Dwight T. Wallace, Eugenio Yacovleff (associated with Julio Tello)
- Art History: Raoul D'Harcourt, Mary Frame, Christine Giuntini, Heidi King, Mary Elizabeth King, Esther Pasztory, Anne Paul, James W. Reid, Anne Pollard Rowe, Rebecca Stone-Miller
- Ornithologist specializing in ancient featherwork bird identification: John P. O'Neill

For the purposes of this study I chose to segregate the artifacts into two broad categories: featherwork attached to textiles (woven fabric) and featherwork attached to non-textile decorative objects (for example, fans, plumes, sticks and pins, and headdress pieces). This separation of categories was based on the differences in raw materials and construction methods employed and the relevant literature associated with each.

Featherwork

In many cultures throughout the world, featherwork items have been associated with wealth, high social status, and political power (Bird 1954:13; Peters 1991:250; Earle 1996:64-65, 69; Costin 1998:125). Examples include the vibrant feather-covered capes of Hawaiian royalty (Earle 1996:64-65), the Maori feathered cloaks from kiwi birds (Hartnup et al 2011), feathered cloaks and headdresses of many North American native groups (Rabineau 1979), and multiple examples from throughout pre-historic and post-

conquest Central and South America (Bird 1954:13; Candler 1991:1, 12; Giuntini 2006:4; Kensinger 1991a:xix; Peters 1991:250; Costin 1998:125).

The manufacture of featherworked items has been ubiquitous throughout much of South America for extant and extinct cultures (Kensinger 1991a:xix). Feathers were held in such high regard that loose, unworked feathers were included in the burial contexts of many Pre-Columbian cultures (Candler 1991:1, 12; Giuntini 2006:4).

Historical records tell us to what extent the Inca treated textiles, feathers, *Spondylus* shell adornments, and other special materials as elite goods in life and as grave goods (Cobo 1964:239; Guaman Poma de Ayala 1980 vol.1:142-146). For the Inca, feathers had a strong connection to the military and other imperial roles (Murra 1995:289). Feathered garments were often outlawed by the Spaniards in fear of the religious potency of the message (Hughes 1995:98). Iconography and mortuary practices clearly show the importance and great value of feather-covered cloth and objects dating back into the prior two millennia.

Ethnographies and ethno-histories confirm the importance of featherwork and laborious textile making (see for example: Howard 1991:50-59). Indigenous groups that still make featherworked headdresses and ornaments include the Cashinahua of eastern Peru (Dwyer 1975; Kensinger 1991b:40), the Bororo of central Brazil (Calil-Zarur 1991:26), and the Waiwai of Guyana and northern Brazil (Howard 1991:50). While current belief systems cannot be taken strictly at face value, most modern South American peoples see their history as evolving from deep in the past and as fundamental to their own current identities (Bray 2003:308).

Pre-Columbian Andes Geography and Cultures

The Central Andes region includes all of Peru, from the Pacific coast in the west, north to the border of Ecuador, south to the border of Chile, and east to Lake Titicaca in Bolivia (Towle 1961:3). This area is geographically quite diverse including extremely dry deserts along the Peruvian coastline, cold and mountainous areas in the twin cordillera of the Andes, and portions of the rainy, perennially wet Amazonian jungle.

Because of a unique combination of water currents, winds, and topography the south coastal region of Peru is home to one of the driest deserts on earth. Due to this extremely arid environment, many organic artifacts buried in mortuary contexts have survived essentially intact for more than two millennia (Emmerich 1969:5; Dwyer and Dwyer 1975:146; Reid 1990:7; Bruhns 1994:29-30; Stone-Miller and McEwan 1991:53; Brinckerhoff 2000:4; Giuntini 2006:1; Wheeler 2006:2). Multiple cultures used the desert regions on the coast to bury their dead with a variety of grave goods. Because of the extremely arid climate organic materials such as bodies, textiles, and featherwork have been well preserved and many artifacts in museum collections originated here.

People settled all of the major ecological environments. Exchange and reciprocity systems evolved to allow each region's peoples to obtain both necessities of life and elite goods from other regions. Thirty or more streams and rivers cross the Peruvian desert coastal region, running from the mountains on the east to the ocean on the west. These valleys are where the coastal peoples clustered to live, grow crops such as cotton, and create beautiful artworks. Initially, these communities would have been rather isolated from each other as the distances across the deserts are long, although the most likely points of early contact would have been the mouths of the rivers and streams along the

coastline. Over time these small groups began to interact and exchange goods, ideology, and artistic techniques.

Although many scholars think that textile production and featherworking were practiced by all Pre-Columbian Andean cultures, we only have evidence from approximately ten or so cultural groups. Drawing from both archaeological and art history sources, we can make a preliminary effort to identify those cultures most likely to be represented in museum Pre-Columbian featherwork collections. James W. Reid, an art historian who specializes in Pre-Columbian featherwork, provides a chronological chart (Figure 8) of what he has identified as the “the ancient Peruvian cultures producing textiles and feathered objects” (2005:10). This simplified chronology is offered as just one version of the many that are used when discussing Pre-Columbian Andean archaeology.

Archaeological chronologies usually differ slightly on date ranges, but for purposes of this thesis Reid’s chart with some minor amendments will suffice. Some scholars include the Recuay, Cupisnique, Vicús, and others in their cultural seriation of the northern coast, but Reid does not include them as there have been little or no textiles or featherwork found for these cultures to date. Conversely, Reid includes the Huarney in his north coast chronology although very little is known archaeologically of this culture. The color bands in Figure 8 are intended only to visually segregate the cultures by geography and time frame; there is no associated meaning with the particular colors used.

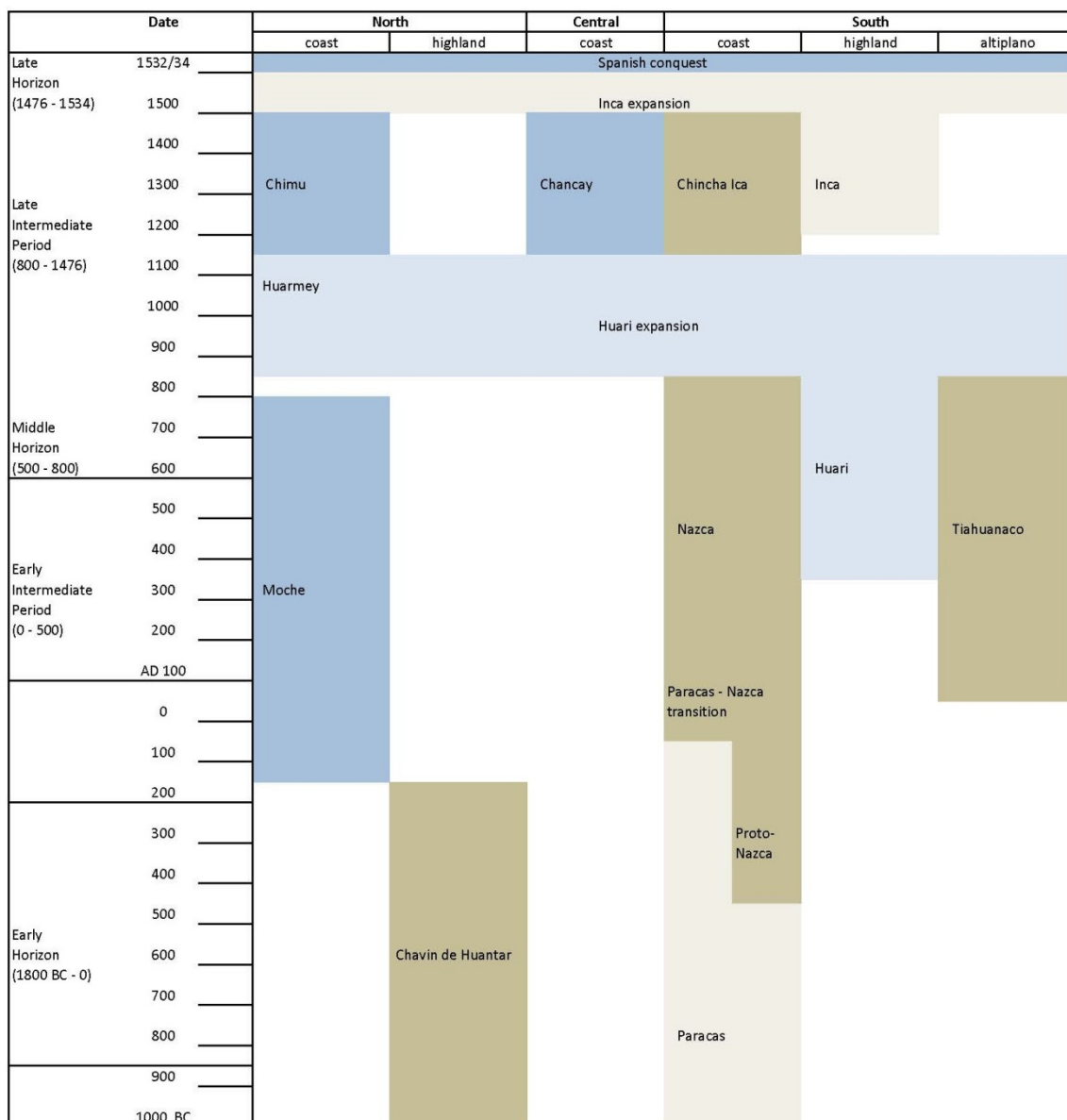


Figure 8: Simplified chronology of ancient Peruvian cultures producing textiles and feathered objects, adapted from Reid 2005:10

Additionally, although feathers and featherwork have been found dating back to the Pre-Ceramic era in Peru, those oldest examples are usually small or fragmentary, thus this thesis will not focus on those earliest cultures. The maps (Figure 9 and Figure 10) are derived from James W. Reid (2005:11) and show the regions and cultures typically associated with featherworked artifacts.

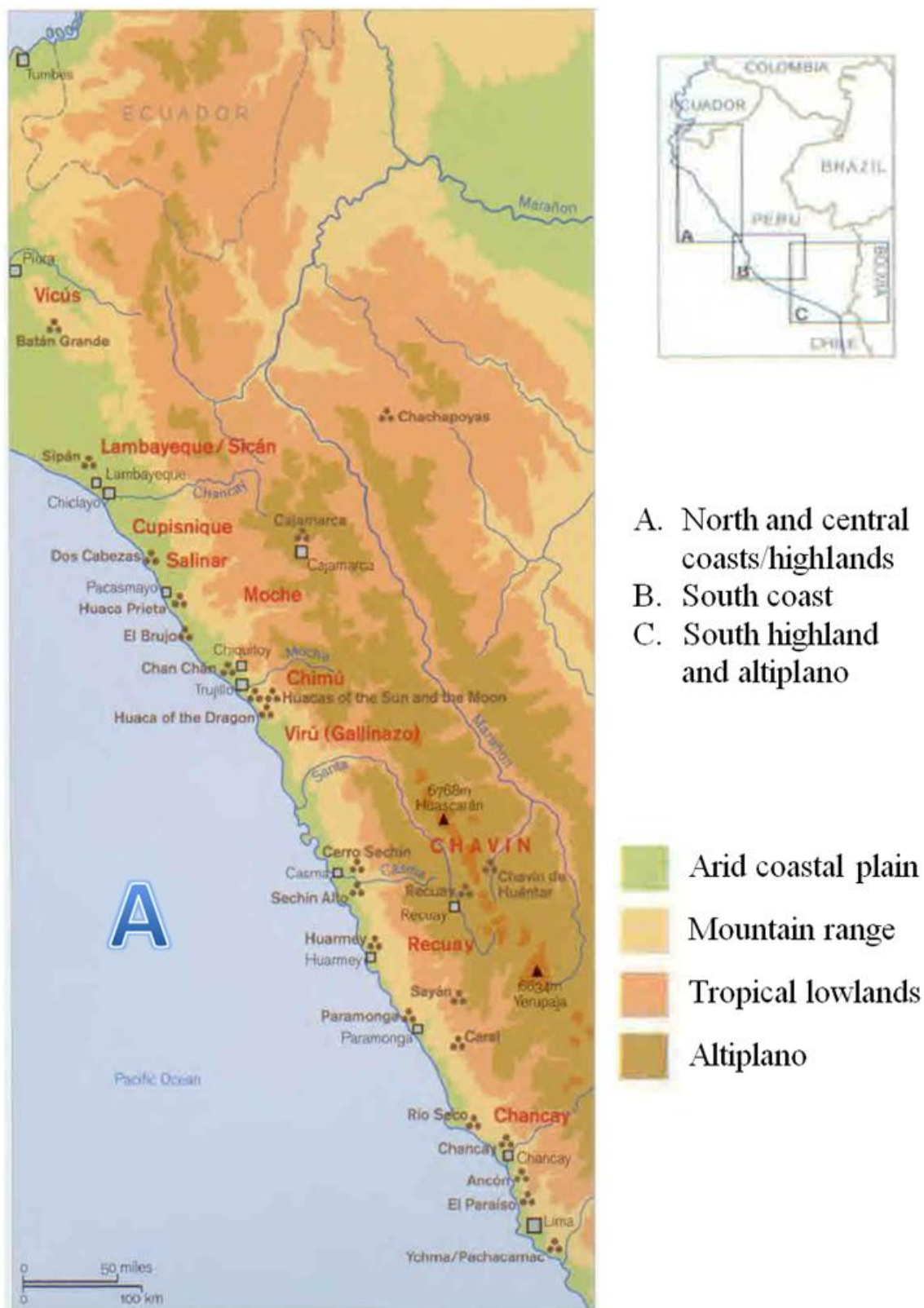


Figure 9: Map (section A) of principal cultures and archaeological Peruvian sites relevant to featherwork, adapted from Reid 2005:11



Figure 10: Maps (sections B and C) of principal cultures and archaeological Peruvian sites relevant to featherwork, adapted from Reid 2005:11

The major textile and featherwork-producing cultures to be discussed in this text are summarized below. Descriptions are primarily drawn from Heidi King (2012b:14-41), art historian and Senior Research Assistant at the Metropolitan Museum of Art in New York, unless otherwise noted.

Paracas (ca. 6th-1st centuries BC) / Reid's chart suggests Paracas may date as early as 10th century BC.

- Located on the South coast in the Pisco and Ica Valleys and the Paracas Peninsula.
- Paracas is considered to be the precursor to the Nasca cultural complex and is often included in the preliminary stages of Nasca.

- Known for some of the earliest better-preserved feathered textiles and objects associated with the Paracas peninsula mummy bundles (*fardo*), with many artifacts found in archaeologically-controlled contexts (Yacovleff 1933; Yacovleff 1934). No large polychrome featherwork artifacts have been reported from the Paracas peninsula excavations (Giuntini 2006:5), although smaller items such as fans and headdress pieces were found wrapped in the mummy coverings. Figure 11 shows a partially unwrapped Paracas mummy bundle with a feathered fan just visible beyond the shell neckpiece.



Figure 11: Paracas mummy bundle (Stone-Miller 2002b:Figure 39)

Nasca (ca. 1st century BC-7th century AD) / Reid's chart suggests Nasca may date as late as the 9th century AD.

- Located on the South coast, originating in the southern coastal valley of Ica and the Nazca River Drainage, eventually spreading to other southern coastal valleys over the centuries of influence. The Nazca River Drainage itself incorporates 9

separate tributaries covering an area of about 10,750 square kilometers (Silverman quoted by Proulx 2007(1999):4).

- Known for textiles, polychrome ceramics, and the Nazca Lines. Unfortunately, cultural attributions for feathered textiles in collections identified as “Nasca” are often based on geographic names, rather than confirmed cultural identification.
- Orefici (2012:501-505) recovered feathered cloth fragments from the Nasca ceremonial center of Cahuachi dating to end of the Early Nasca period. (See Figure 12.) The feathers are attached to the cloth in small bundles rather than with feather string attachments which are more commonly seen in the collections reviewed for this project.

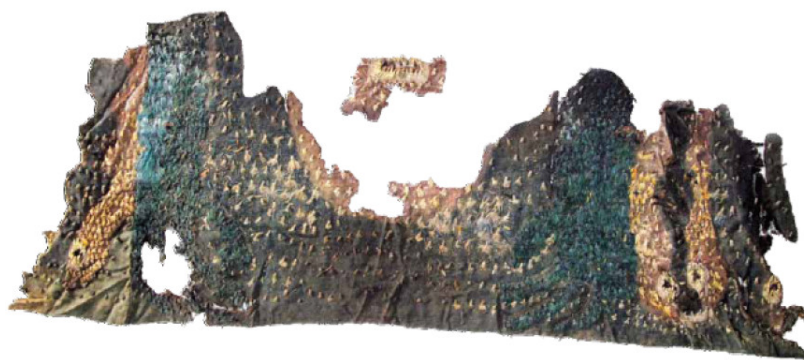


Figure 12: Featherworked textile fragment from Cahuachi (Orefici 2012:Figure 30)

Moche (ca. 2nd-8th century AD) / Reid’s chart suggests Moche may date as early as the 2nd century BC.

- Located on the north coast, between the valleys of Piura and Nepeña, roughly contemporary to Nasca.
- Known for elaborate ceremonial architecture and sophisticated ceramic and metal work. Although artistic representations include bird imagery and suggestions of feathered regalia worn by ritual figures only a few confirmed featherworks have

been recovered from archaeological contexts. Rodman and Lopez (2005:130) state that “Moche textile preservation is extremely rare.”

Wari (ca. 7th-10th centuries AD)

Other time frame estimates include Moseley’s (2001:23) approximation of 1st-10th centuries AD, when including the precursor Huarpa and Reid’s chart suggests Wari (Huari) may date as early as the 4th century AD and as late as the 12th century AD.

- Originated in the central highland valley of Ayacucho, eventually influencing most of the Central Andes, particularly the south coast and south highlands.
- Known for their technical excellence in objects of ceramic, wood, shell, textiles, and semiprecious stone. Wari artifacts are sometimes confused with Tiwanaku due to a shared iconography.
- A series of featherworked panels have been reliably dated and attributed to the Wari culture. The example in Figure 13 below is housed at the Metropolitan Museum of Art in New York.



Figure 13: Yellow featherworked panel (approx 70.5 x 213.4 cm) attributed to Wari (H. King 2012b:Figure 18a)

Tiwanaku (ca. 1st-10th centuries AD)

- Originated in the southern highlands, east of Lake Titicaca. Influence and control spread south into the Chilean altiplano.
- Known for monumental architecture and stone stelae, as well as complex agriculture. (Moseley 2001:208)

Chimú (ca. 10th-15th centuries AD)

- Originated on the north coast, conquered or absorbed Lambayeque with a merging of styles.
- Many surviving tabards, headdresses, ear ornaments, and parts of litters with feather mosaic survive from this period and are attributed to the Chimú. The example tabard shown in Figure 14 was not recovered archaeologically, but based on the imagery and the technical features of the foundation fabric (i.e., two panels joined along the center with the neck slit left open and paired warps) it has been attributed to the Chimú (H. King 2012b:106).
- The largest discovery by archaeologists of Chimú featherwork was made in the early 2000s at Huaca de la Luna, a complex built by the Moche (H. King 2012b:33).



Figure 14: Tabard with two figures attributed to the Chimú (H. King 2012b:Plate 2)

Sicán (Lambayeque), Ichma (Ichsma), Chancay, and Ica/Chincha (ca. 10th-15th centuries AD)

- Coastal cultures for which some textiles and featherwork have been identified, although much less is known about each of these cultures as to origin, spread, and specific iconography.

Inca (1430-1534 AD) / Reid's chart suggests Inca may date as early as the 12th century AD.

- Empire originated in the southern highlands and by about 1500 AD stretched from modern-day central Chile to southern Colombia.
- Although it is the shortest time frame from which textiles and featherwork originated, it was the most recent, the best documented, and perhaps one of the most prolific producers of such goods (Murra 1995).

Pre-Columbian Textile Production

Andean textiles have been studied in depth in recent decades and from these studies some experts have suggested that there may be culturally-specific indicators and attributes encoded in Pre-Columbian textiles (see for example Conklin 1997:116-118). These same attributes may be useful in identifying potential cultural affiliations for textile-based featherworked artifacts.

Nowhere in the world has the concept of “textile primacy” been as fundamental as in the Central Andes over the last two-and-half millennia. Costin (1998:123) states that “Cloth was the most economically, politically, and ritually valuable item in the late Pre-Hispanic Andes.” Textiles worn as garments communicated then, as they do now, immediate visual messages of the wearer’s self-image, projected public image, and liturgical and/or political messages (Stone-Miller and McEwan 1991:55, 66, 78; Paul and Niles 1992:4; Stone-Miller 1992:335; Benson 1997:3-4; Costin 1998:127; Martin 2006:319). Textiles and textile imagery both plain and elaborate are found throughout the ancient Andean world in mortuary contexts, in iconography, and even in the construction of stone walls (Murra 1995:278; Stone-Miller and McEwan 1991:57). Estimates of the materials required to produce textiles give an example of their significance in the ancient Andean world. One 300-square-yard cotton shroud, a relatively common Paracas burial textile, would have required “two irrigated acres planted in cotton” to create (Yacovleff quoted by Murra 1995:280) and easily tens of thousands of hours of labor invested in planting, harvesting, preparing, spinning, and weaving (Stone-Miller 2002a:265). Historical accounts from the conquest era describe the value placed on textiles by the Inca and give some sense of the deep-rooted social importance of woven materials throughout the Pre-

Columbian world. The Incas were known to prize their textiles more than gold (Hughes 1995:15; Brinckerhoff 2000:34-35). Accounts relate how the retreating Incan armies would burn their stored cloth rather than allow it to fall into the Spanish invaders' hands (Reid 1986:13).

Andean textiles were woven using one of three primary types of looms: the backstrap loom, a staked or stationary horizontal ground loom, and the vertical frame loom (Reid 1986:9; Dyer 1996:29). Each loom type has been associated with specific cultures, times, or regions in the Central Andes (Stone-Miller 1992:339; Rodman and Cassman 1995:34, 37, 39). Regardless of loom type, the yarns that maintain tension are termed the *warp* and the pattern-bearing yarns woven into and around the warp are termed the *weft*. Both can be used creatively to produce quite technically sophisticated textiles. The directions in which the warp and weft were woven and the direction of each in the finished textile may seem unimportant or incomprehensible to modern Western sensibilities. To the ancient Andean all aspects of the construction and use were deeply important concepts, even if an observer could not see the final underlying structure (Stone-Miller 2002a:59; Stone-Miller 2002b:xxi).

The two most common loom types discussed in the literature are the backstrap and vertical looms. The backstrap loom (Figure 15 and Figure 16) is essentially a single-weaver instrument, tied or anchored at the far end around a tree limb or other brace and tied with a backstrap around the weaver's back. This arrangement allows the weaver to control the amount of tension on the warp yarns by leaning forward or backward. Andean weavings made with a backstrap loom are generally limited to roughly 36-40 inches (approximately 91-101 cm) in width to accommodate the normal human reach and can

also be limited in terms of length for the same reason (Rodman and Cassman 1995:33).

Andean weavers have proven quite inventive since some weavers may have rolled the completed portion of the weaving at one end so as to continue weaving and create a much longer textile (Wallace 1967:402). M.E. King (1965:1) suggested that weavers may have woven from one end and then turned the loom to work from the other end, completing the final weft insertions with a needle.



Figure 15: Women weaving on backstrap looms as drawn on a Moche pot (Martin 2006:319)

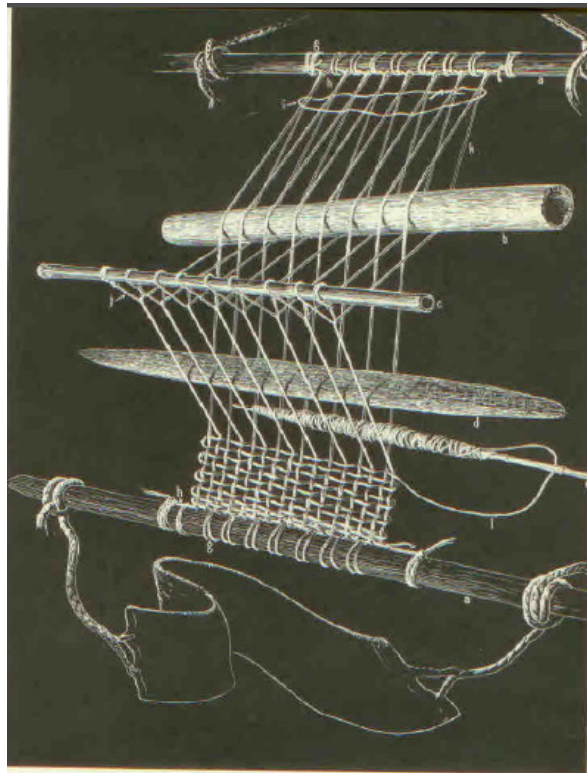


Figure 16: Diagram of backstrap loom as observed by Albers in use in Peru (Albers 2003:Plate 5)

The vertical loom (Figure 17), also called vertical tapestry loom or wide-weft loom, was set up so that the warp yarns were the shorter yarns with weft yarns running sideways (horizontally) across a much greater length. The Recuay, Wari, Tiwanaku, and Inca highland cultures used looms of this kind, some as much as seven feet wide. One advantage of this type of loom is that it would have allowed for multiple weavers to work on a textile simultaneously. Some researchers have suggested that inconsistencies in technique within a single textile may be indicative of more than one weaver at work (Rodman and Cassman 1995:36-37).



Figure 17: Vertical loom with short warp and two weavers (Rodman and Cassman 1995:37)

Featherworking Applied to Textiles

Feathered textiles exist in a variety of forms including mantles, tunics, miniature textiles, coca bags, and belts. Despite the variance in outer appearance, nearly all of these textile-based artifacts have commonalities in their underlying construction. Featherworking found in archaeologically controlled excavations has been extremely rare, in part because of the previously mentioned looting, but also because featherwork itself was most likely such a special and unique product. For example, while the Nasca have been credited with producing colorful and intricately designed feather-covered textiles, very few examples have been recovered archaeologically (Proulx 2006:40). Two notable exceptions of Nasca featherwork have been recovered in the last two decades. First, a large cache of

women's dresses and shawls was uncovered in 1998 at the Nasca ceremonial center of Cahuachi by Giuseppe Orefici, as described in English by Mary Frame (2012:55-61), and in 2002 an elite woman's burial was discovered in the Ica Valley at Cerrillos (Delgado 2012:63-67; Wallace et al 2004:127-143). On the other hand, smaller featherworked items from Paracas burial sites have been well documented. We know that the outer layers of high-ranking Paracas burials included an open-sided cotton panel tunic covered with featherwork, feathered headdress ornaments often in pairs, and a few feathered fans (Peters 2000:4).

Feathers covering the surface of textiles are usually attached through the use of "feather strings" (Greene 1991:21), also known as "feather fringe" (Brinckerhoff 2000:37) or "*hileras*" (Reid 1990:8). Each feather string is composed of feathers that are all one color and feather length. Feathers are knotted together using one to three threads made of cotton, wool, or a combination of the two materials and each of these technical elements may also be indicative of culture and time frame.

Yacovleff (1933:145 Figure 2) sketched examples of the Paracas feather strings with slight variations, all essentially composed of one primary thread connecting the feathers, with one exception for longer feathers as seen in his sketch 2a (Figure 18). He noted that a more slender stitching thread was sewn through longer feathers, presumably to ensure that the feathers would remain parallel to one another on the finished product.

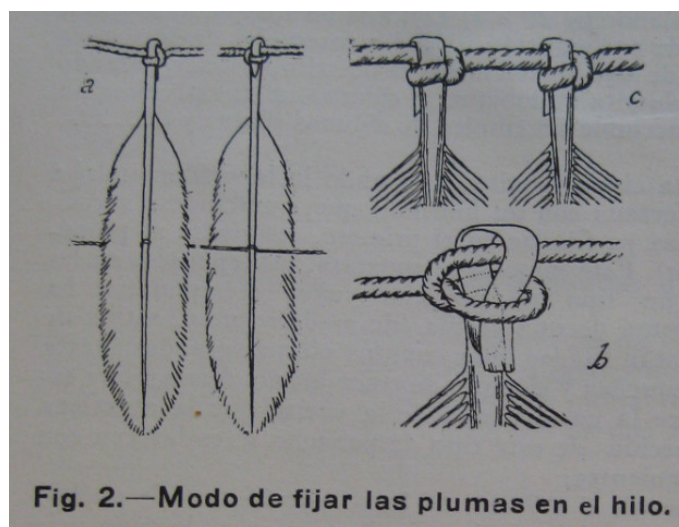


Figure 18: Examples of variations of Paracas feather strings (Yacovleff 1933:Figure 2)

In contrast, most feather strings on non-Paracas featherworked textiles have at least two threads or yarns connecting the feathers into each feather string assemblage. For example, a series of large feathered hangings, some of which are in the Metropolitan Museum of Art's Pre-Columbian collection, are thought to be of Wari provenience (Giuntini 2006:1). These have been studied in detail by the Museum's Conservator, Christine Giuntini, who sketched the basic structure of the feather strings (see Figure 19). For these hangings, two threads were employed to create the feather strings prior to the use of a third thread used to attach the assemblage to the base textile (Giuntini 2013).

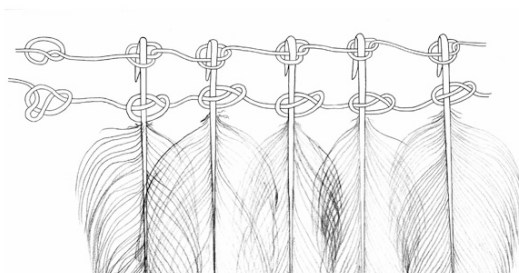


Figure 19: Diagram of slip-knotted structure for MMA Wari panel #1979.206.475 (Christine Giuntini 2013)

An additional variation on the feather string composition, as drawn by d'Harcourt (1962:132), shows that for large or coarse feathers an added thread (Figure 20) may be used to create a loop at the quill end, potentially resulting in as many as three threads composing the feather string assemblage. Unfortunately a common problem for the d'Harcourt example and others is that there is often no specified provenience to help identify which cultural affiliation may be associated with a specific form of feather string construction.

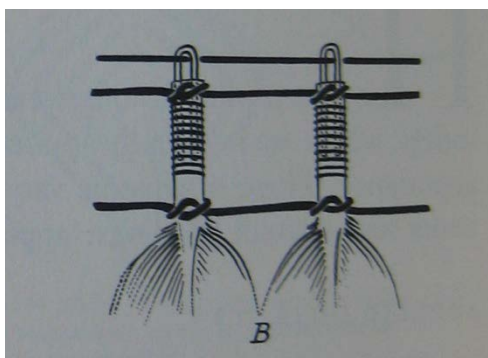


Figure 20: Diagram of terminal loop alternative for feather string composition (d'Harcourt 1962:132 Figure 96).

The completed feather strings are next sewn onto the completed textile base or in some cases incorporated into the weaving as part of the weft structure, then cut at the point where one color should end and another should begin. This allowed the featherworker to create long strings of one color of feather and set these aside for later use, rather than needing to prepare strings of specific lengths in advance (Greene 1991:19). The strings are attached to the base fabric in a manner similar to shingling a roof, wherein the featherworker begins by stitching a row at the bottom and attaching the next strings in overlapping rows working towards the top (d'Harcourt 1962:132). The variation seen in feather attachment techniques and the apparent localization of certain techniques, as with the Paracas single-thread method, suggests this may be useful in future with additional

comparative studies. For purposes of this project, there were not enough culturally identified descriptions or diagrams to make this currently informative.

Featherworked Non-Textile Decorative Objects

Most Andean archaeological collections of feathered objects include items such as fans, plumes, pins, decorative ornaments, hats, and headdresses. The variety of construction techniques used in creating these non-textile artifacts is sophisticated and impressive by any standard. Some objects referred to as “mosaics” have whole or cut pieces of feathers, often in an intricate pattern, glued to the base with a corn-derived type of adhesive (Reid 1986:9). Many include braided components, which may only be moderately helpful in deciphering potential original context due to the long history of the use of braids in both ancient and contemporary Andean cultures (A. Rowe 1996a:340).

Artifacts known as “fans” or “plumes” may have been carried in the hand or worn as part of ceremonial headdresses; different scholars interpret very similar items in differing ways (Candler 1991:1). Many south coast burials included such objects although only a few have precise archaeological provenience. Some Paracas burials were well documented, with all grave objects recorded (Bird 1954:13; Frame 1991:110; Paul 1991b:175; Yacovleff 1934:63-153). Several mummies recovered from the Paracas Necropolis (Frame 2001:62) and Ocucaje (Peters 2000:250) burials were found with one or more fans wrapped in the outer layers. Frame (2001:59-62) states that the positioning of the fan lying on the upper portion of the mummy bundle is intended to be over the heart region of the deceased. Peters (2000:4) described the fans included in Paracas elite burials as having a “twined reed handle.” Photos (Frame 2001:62) and meticulous drawings of the Paracas burial feathered fans (Yacovleff 1933:Figures 3, 5, 6a, 6b, 7, and

9) are some of the few detailed studies available that show a very distinctive fan form.

Figure 21 shows one of Yacovleff's sketches of a Paracas fan.

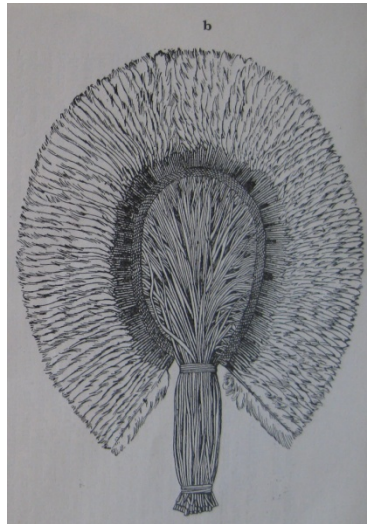


Figure 21: Paracas fan (Yacovleff 1933:Figure 6b)

This form is quite similar to the imagery in Paracas embroideries sometimes thought to represent a *tumi* knife, but which Frame contends is a Paracas-style fan (Frame 2001:59-62). Other scholars concur that the imagery must be of handheld fans (Candler 1991:5; Paul 1991b:187, 218) because the south coast knives of the era were not *tumi* shaped. Any such feathered items would have only been used by people of special rank (Peters 1991:250).

Feather fans may have been associated primarily with south coast traditions, while the wooden staff – sometimes feather covered – is more widespread. Both are associated with the elite, possibly as symbols of authority. For example, the feathered staff was identified by Cobo as a royal insignia of the Inca ruler (1990[1653]:246). Staffs are depicted iconographically by the Chavin, Moche, Chimú, Paracas, Wari, Tiwanaku, and Nasca cultures (Candler 1991:5).

Ethnohistoric information also yields clues as to how feathers were worn in life by the Inca royalty. Examples of relevant accounts include the drawings (see Figure 22) of Felipe Guamán Poma de Ayala (2009[1615?]:78 Fig. 104) and descriptions such as Father Bernabe Cobo's (1990[1653]:187) observation: "Above the forehead they put a large diadem of feathers standing up high in the form of a crown or garland; it was called *pilcocata*."

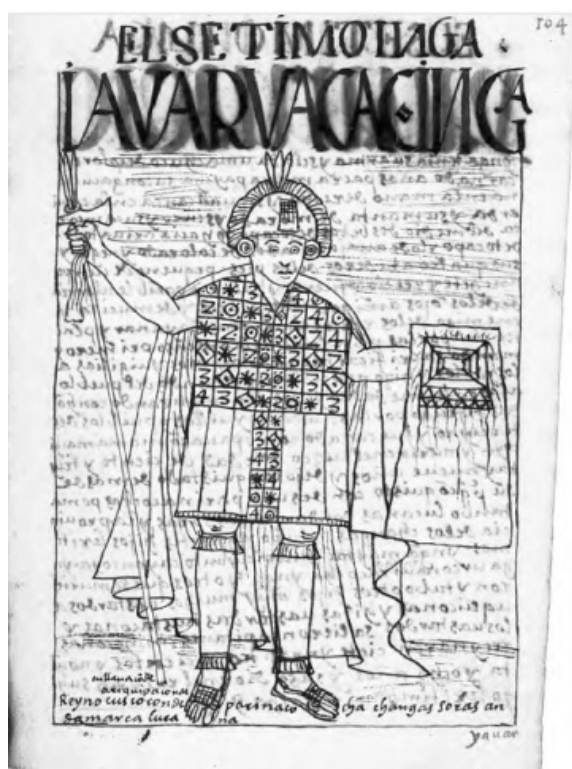


Figure 22: Felipe Guaman Poma de Ayala's drawing of Yahuar Huacac Inca wearing feathered headdress (de Ayala (2009[1615?]:Figure 104).

More recent ethnographic accounts document the continued use of feathers in many South American indigenous populations. For example, the Cashinahua, an extant native culture in eastern Peru, make and use a variety of feather headdresses (Kensinger 1975:69; Kensinger 1991b:41-49) and feather "fire fans" for ritual dances, with the type of feather chosen according to importance of use (Candler 1991:5). The Waiwai, another

native group of Guyana and Brazil, create many elaborate feathered body adornments reserved for special ceremonies (Howard 1991:50-59).

Overview of Materials Used in Featherworking

The materials used in the composition of Andean featherworking may carry meaning as to choices made by the featherworkers. The primary construction supplies are summarized and described in this section and include bird feathers, cotton, other plant fibers, camelid wool, and other animal fur or hide.

Bird feathers

Bird feathers are a ubiquitous and valued element found archaeologically and historically throughout South America, associated with wealthy or elite members of societies. It is important to note that for many past and present South American indigenous people feathers are viewed as active elements in allowing the wearer to become part of the sacred (Magaloni-Kerpel 2006:3-4). Therefore, their use was not likely seen as being simply decorative; rather there were probably multiple meanings and purposes we may never fully understand.

Many of the most colorful bird species are found only in the Amazonian Basin. Therefore either the birds or their feathers must have been carried via trade networks from the Amazon into and beyond the Andes (Greene 1991:17; Pasztory 2008:2). At least one mummified mealy parrot, native to the Amazon, was found in a grave at Cahuachi suggesting that birds were traded and perhaps even kept as pets or domesticated feather sources in the coastal regions (Proulx 2006:208).

Interestingly, although there are hundreds of native bird species only a few have been consistently identified in the Pre-Columbian featherworked pieces (O'Neill 1984:147; Robbins 1991:117). For example, John O'Neill, an ornithologist who specializes in bird identification for Pre-Columbian Andean featherwork, wrote in Ann Rowe's 1984 exhibit catalog for *Costumes and Featherwork of the Lords of Chimor at the Textile Museum* that the main species represented were various Amazon parrots (*Amazona*), all of the types of macaws (*Ara*), multiple types of tanagers (*Tangara*), and Muscovy ducks (*Cairina moschata*), although colors such as white and black may have been a mixture of feathers from more than one species per artifact (O'Neill 1984:147; Giuntini 2006:3). This suggests that the colors or appearance of the feathers, their essential "birdness" as O'Neill termed it, were more important than the specific bird species (O'Neill 1984:146; Benson 1997:73). During Pre-Columbian times the feathers chosen were more often the brightly colored Amazonian species, whereas post conquest more subdued colors of brown and white from local species such as Muscovy duck, egret, flamingo, and cormorant were incorporated (A. Rowe 1984:176-178; Candler 1991:8; Giuntini 2006:10). Photographs below show examples of macaws and Amazon parrots (Figure 23), Muscovy duck (Figure 24), and paradise tanager (Figure 25).



Figure 23: Macaws (*Ara*) and Mealy Amazons (*Amazona*) - (Photo from Wikimedia, Brian Ralphs)



Figure 24: Muscovy ducks (*Cairina moschata*) - (Photo from Wikimedia Commons, SandyCole)



Figure 25: Paradise tanager (*Tangara*) - (Photo from Wikimedia Commons, Drew Avery)

The red-orange color of some archaeological featherwork is thought to be the result of ancient *tapirage* practices (Pasztory 2008:5), a method of changing the color of new-growth feathers on a living bird. The process of *tapirage* has generally been documented through ethnographic or ethnohistoric observations amongst Amazonian cultures such as the Tupinamba (Reina and Pressman 1991:112). The methods described for changing the feather color consistently included the use of a captive bird from which a limited number of feathers were removed and then either blood or secretions from a toad or frog would be applied to the newly-empty follicles or the bird was fed a special diet of fish fat (Alfred Métraux [1928] as quoted by Reina and Pressman 1991:112).

Cotton

Cotton (*Gossypium barbadense*, native Peruvian cotton) was most successfully grown at the lower altitudes and along valleys near the coast (Bird 1979:14). This form of cotton is composed of extra-long strands that create a stronger single-ply spun thread that can be used without plying. This is not common with other forms of cotton. The early coastal

textile complex harvested and spun the wild cotton using it in clothing, fishing nets, baskets, and bags (Wallace 1979:27). Domestication of the plant provided a more regular supply and fed the growing reliance on textiles (Stone-Miller 1992:335; Bruhns 1994:79-88, 110). This form of cotton grows naturally in at least five colors: white, tan, light and dark brown, and a grayish-mauve, but generally does not take or hold dyed colors as well as camelid wool (Bjerregaard 2007:30-31). Some have suggested that cotton and the beginnings of its agriculture were the true roots of Andean cultures and textile craft (Bird as quoted by Murra 1995:276).

Plant Fibers Other than Cotton

Plant fibers other than cotton were also used prolifically, particularly in early netting, basketry, cordage, and fan/headdress production (Murra 1995:276; Bruhns 1994:172; Stone-Miller 1994:13). These plants include those that provide materials from their stems (soft fibers termed “bast”) or leaves (hard fibers). While stem and leaf fibers can be distinguished from other categories of fiber (i.e., cotton, camelid) through the use of microscopic examination, generally one cannot distinguish the specific plant species without the use of cross-sectioning, chemical tests, and botanical expertise (M.E.King 1978:93). Fibers from bromeliads and agaves have been identified in a number of Pre-Columbian artifacts, frequently referred to by the more generic term “*maguey*” (Bruhns 1994:156). Numerous plants from the genus *Furcraea* are also called *maguey*, but may also be referred to as “*fique*” fibers. Additional plant material identified in archaeological and ethnographic studies include totora reed (a large type of sedge plant) and hemp (M.E.King 1978:93).

Camelid Fiber or Wool

Camelid fiber or wool from highland animals of the family *Camelidae* began to appear in woven textiles millennia ago. Domestication of highland camelids such as the alpaca and the llama can be traced to at least 6,000 YBP (Wheeler 2006:1). Camelid fibers appear most frequently in artifacts from the highland regions (Stone-Miller 1992:335), although camelid wool is found in the more elite and elegant weavings of the coast indicating extensive trade. Wool from wild camelids such as vicuña and guanacos would have come from hunted or trapped animals as these were never successfully domesticated, with the resulting wool being perhaps even more highly prized (Wheeler 2006:1; Bjerregaard 2007:31). While some scholars contend that cotton agriculture was the start of Andean cultural growth, others as emphatically see the domestication and herding of llama and alpaca as the impetus (Stone-Miller 1992:337; Stone-Miller 1994:14; Wheeler 2006:2). Diagnostic aspects of camelid hair versus other fibers usually require the use of microscopes and comparative slides to identify (M.E.King 1978:92). Once camelid has been identified, any further distinction as to which of the four Andean *Camelidae* species requires specialized laboratory work such as DNA testing.

Animal Skin and Fur

Other materials such as animal pelts, skin, and fur are also incorporated into Andean featherworked artifacts, but have not always been specifically identified. Many museum catalogs and archaeological records simply list “fur” or “hair” as one component of objects when described.

Post-Conquest Materials

Post-conquest materials that appear in the construction of textiles or featherworked textiles include sheep's wool, linen, and silk (Stone-Miller 1994:20). The presence of any of these elements in the woven material or the yarns suggests that the object was either made or repaired sometime after the Spanish conquest.

Studying Museum Collections

As Norman Yoffee observed, only somewhat facetiously: "The world's second-oldest profession may have been tomb robbery..." (2005:36). A significant challenge in researching archaeological artifacts in museum and private collections from Peru is the region's centuries-long practice of grave robbing. Encouraged by the Spanish conquistadors, grave robbing became a family tradition (the practitioners became known as *huaqueros*), with salable items pulled from prehistoric graves and sold to collectors. Once removed from their original context these artifacts become cultural "orphans" – no direct evidence exists as to culture, time frame, or geography – further exacerbated by the tendency for *huaqueros* to hide their sources (Lechtman 1996:33; Daggett 1991:36; Stone-Miller and McEwan 1991:62).

Collectors, Collections, and Museums

Museums around the world have been the recipients of Andean collections donated by wealthy and well-travelled patrons who may have had little information about the actual source of the items. This resulted in many fascinating but unprovenienced pieces in museum storage or shown in displays with inexact origins. A brief review of the history of collecting and donating this type of material may be of value in understanding the background of such collections.

Numerous museums were founded by a single collector donating his or her entire collection; examples include the Textile Museum created in 1925 by George Hewitt Myers around his collection of historical and traditional textiles (Denny 2011:396) and the Smithsonian's National Museum of the American Indian founded in 1916 as the Museum of the American Indian around the collection of George Gustav Heye (Small 2000). Expansion of other museum collections can be traced to the late 19th century and the early 20th century when some museums sponsored archaeological and collecting expeditions with the purpose of acquiring artifacts; examples include the Chicago Field Museum's expeditions to Peru in 1925 and 1926 to obtain Pre-Columbian materials (Kroeber 1930; O'Neale 1937).

Established museums were often the recipients of large collections which enhanced their existing holdings: examples include the 1914 donation of a 693-piece "Nazca collection" to the American Museum of Natural History by Mr. A. D. Juilliard (AMNH Journal 1921:553); the 1962 donation to the Metropolitan Museum of Art of Peruvian ceramics collected in the 1950s by Nathan Cummings (Reif 1983); and the 1979 donations to the Metropolitan Museum of Art by Nelson Rockefeller of his art collections which had originally been the core of the Museum of Primitive Art he founded in 1954 (Columbia Encyclopedia 2013). It is of interest to this thesis that Nelson Rockefeller and Nathan Cumming's collecting in the 1950s is roughly contemporaneous with that of donor of this project's collection, Malcolm K. Whyte. Also of interest is a reference to Soldi in correspondence between Parsons, Rowe, and Dawson that is included in the accession file documents for the Whyte collection (Appendix A). According to Dawson (1979:83-84) Soldi was an Ica-based antiquities dealer who played a role in the looting of Ocucaje

sites between 1941 and 1959, a period that overlaps with Whyte's collecting years.

Materials from Soldi's collections have also been traced to the National Textile Museum and the American Museum of Natural History.

Although the motivations of these collectors and subsequent museum founders or donors cannot always be determined, the literature suggests that during the latter part of the 19th century and well into the 20th century, collecting "costly showpieces" was considered "fashionable" for members of the wealthier classes (Denny 2011:396). By donating their collection to a museum a wealthy individual could make sure it would be maintained and shared with others, while establishing a record of their generosity and prestige and providing themselves with certain tax benefits.

Unfortunately the approach of building collections and donating them to museums has resulted in varying levels of provenience for the artifacts. Kirshenblatt-Gimblett (1991:389) has noted that a distinct and common drawback to groups of objects that are "collection driven" rather than a more balanced and informed approach can be that the objects begin to be viewed primarily as art. She also spoke of the impact collectors have on artifacts, saying that "collecting induces rarity by creating scarcity" (Kirshenblatt-Gimblett 1991:391). Each of these aspects has certainly occurred in the area of Pre-Columbian artifacts and the activities of the various collectors.

Museums and Cultural Property Laws

Unfortunately, where there are collectors interested in purchasing artifacts, there is also likely to be looting. Atwood (2006:27) described the late 1980s as the most recent of the periods of intensified grave robbing in Peru, triggered by the discoveries in Sipán, with the previous wave of grave looting being in the 1960s. Relevant to this discussion and to

the MPM featherwork collection is the fact that some museum artifacts, and particularly textiles, were often fragmentary in nature by the time they passed into the hands of the donor. Complete textiles are rare, with many artifacts showing evidence of having been cut to smaller sizes with the apparent intent to encourage multiple sales. The practice of cutting textiles whether decorated or not, appears to be a common and recognized tactic of the illegal market. Parsons (1962:148-150) noted that the textiles in the Whyte collection (accession 18046) were generally fragmentary, “having been cut to a standard twelve by twenty inch size” although he did not expand on these specific remarks.

Websites associated with the sale of Pre-Columbian artifacts such as *PaleoDirect.com* state that “Many South American Pre-Columbian textiles for sale are cut swatches of burial clothes of mummies purposely cut for market.”

In an effort to stem the tide of cultural artifacts leaving their countries of origin, laws were enacted such as the U.S. National Stolen Property Act (NSPA) in 1934 which primarily dealt with stolen or forged items and for which early enforcement was often sporadic or ineffectual (Atwood 2006:102-103). In 1983, the Convention on Cultural Property Implementation Act (CPIA) was signed into law to grant the president of the United States authority to restrict importation of archaeological and ethnological materials considered vulnerable to pillage if so requested by another member country of the Convention (Atwood 2006:103). This act codified a 1970 UNESCO convention calling for an “effort to guard against the acquisition of ‘unprovenanced,’ and therefore most probably looted, antiquities” (Brodie and Renfrew 2005:343). Although CPIA was not initially strongly enforced, it has over time become more effective (Atwood 2006:256). Other laws, including the US’s own 1990 Native American Graves Protection

and Repatriation Act (NAGPRA), have since been passed to continue to reinforce the protection of national and international cultural material.

Peru has its own legal history regarding movable cultural property, including Law No.6634 of 1929, Law No. 12956 of 1958, Law No. 24047 of 1985, as well as the more recent Law No.28296. While the specific details vary, these laws share a prohibition on the export from Peru of movable cultural property, such as archaeological artifacts. The 1985 law identifies all pre-Hispanic artifacts as cultural property. Currently the export of artifacts of the kind included in the Whyte collection would be illegal except by special authorization via Supreme Resolution; such authorization is restricted to cultural exhibits, analyses, and Peruvian officials serving abroad (Batievsky and Velarde 2006).

Kopytoff (1986:78-79) describes a more contemporary, but striking parallel related to African art. In the 1950s occasional objects, considered to be special or rare, were acquired by collectors and ethnographers traveling in Africa. The objects were often bought for sentimental or aesthetic reasons in addition to their scientific value. These objects were “singularized” in Kopytoff’s terms, since their value was based on a connection to an individual owner. Over time, the collecting grew in scale and the objects became increasingly commoditized, resulting in the open trading and sale of objects. This caused a backlash wherein purchases, especially those made by non-natives (i.e. European and American dealers), were perceived as bordering on immoral. As a result, over the last 30 years laws and conventions have been enacted to attempt to slow the outward flow of the native African artifacts.

International organizations such as UNESCO have established regulations controlling research and ownership of artifacts that are still to be discovered, and countries such as

Peru are expanding efforts to repatriate artifacts from collections in the United States and other countries. The return of Yale's Machu Picchu collections to Peru is a recent case in point (Regaldo 2011). A complete listing of cultural heritage laws by country is available online through the *UNESCO Database of National Cultural Heritage Laws* (United Nations Educational, Scientific and Cultural Organization 1995-2007).

In most cases artifacts in museum collections obtained prior to the passage of these laws are generally considered to be exempt from confiscation. While this potential exemption excludes human remains and those items deemed of patrimonial value to specific cultures and countries, this also means any museum collections already held should be seen as the last of such acquisitions and a valuable resource for research and study. Museums such as the Milwaukee Public Museum that hope to obtain and retain accreditation in the American Alliance of Museums (AAM) have long since ceased to accept donations of artifacts that have questionable provenance. Going forward, existing collections may be the best resource for students and scholars to study without traveling to other countries. This, in itself, is a strong argument against museums deaccessioning artifacts that might have limited provenience, be perceived as redundant, or are fragmentary.

Early Archaeology and Challenges to this Project

Additional challenges arose during the early part of the last century associated with archaeologists performing controlled field work and their approach to more ephemeral materials such as textiles and featherwork. This quote from 1957 clearly shows the early state of the archaeological approach to such materials:

Unfortunately, a knowledge of textile technology is rare among professional archaeologists, since this has not been considered to be a

requisite part of their training. As a consequence, textile materials have been lost in the field, and many textile records have been regrettably limited in scope (VanStan 1957:158-159).

Junius Bird and his work in the 1940s with textile fragments from the north coast site of Huaca Prieta was a notable early exception to this pattern (Bird et al 1985).

Given the lack of synthetic and comparative studies of feathered textiles from known archaeological proveniences of Andean featherwork it is perhaps not surprising that limited-provenience museum collections have not always been a popular source of research. However, more recently the potential of the large numbers of historic and prehistoric items in museums to add to our knowledge in many areas has been argued. For example, through a combination of scholarly study of limited-provenience artifacts (Hilton 2009; Desrosiers 2012) and radiocarbon dating techniques (Van Strydonck et al. 1992:928) contemporary scholars have begun to uncover heretofore unknown aspects of such collections.

Approaches to Studying Museum Collections

Without reliable documentation, museum curators must use other methods in order to approximate the original provenience of such collections. Methods have included examining materials used in the construction of featherworked artifacts, construction methods, iconography, color and design choices, ornithologist identification of feathers/bird species, and more (O'Neill 1984; Berdan 2006; Giuntini 2006). A more formal approach to textile identification was proposed by M.E. King (1978:89) wherein she advised detailed studies of the textile itself (includes selvages, warp, and weft), structure of the yarns (includes spin and ply), types of fibers used (cotton, other plant, and

animal), and any chemicals used such as dyes and mordants. While most featherworked pieces are not likely to incorporate dyes, the remainder of M.E. King's outline proved useful for this project.

Background Summary

Featherworking is a very old craft and appears in many cultures around the globe dating back thousands of years in some regions and is still practiced today by some cultures. The geography and pre-historic cultures of the Central Andes play a large role in any study of Pre-Columbian artifacts. This chapter introduced the significance and general methodology of textile manufacture in ancient South America. Most textile-based featherworked pieces have commonalities in their underlying construction which should contribute to identifying potential provenience indicators in the artifacts themselves. Featherworked artifacts based on non-textile construction such as fans, plumes, staffs, and headdress pieces have had less detailed research and analysis published. This means that other approaches, such as studying raw materials used, construction techniques, related ethnographic or ethnohistoric studies, and reviewing iconographic imagery for usage clues are needed to decipher their original function or purpose. Materials such as feathers, cotton, camelid fibers, and other components most commonly used in Pre-Columbian featherworked objects was presented in overview form. In the following chapters, each of these topics will be revisited and expanded upon as befits the specific category of artifacts and the goals of the project.

This chapter also reviewed concepts specific to museums and collecting practices such as the origins of artifact collections, time periods of early collecting, and laws associated with limiting acquisitions of cultural, archaeological, and ethnographic materials.

Museums, while limited from continued acquisition of archaeological or ethnological materials, are nonetheless often the some of the most accessible repositories of such researchable artifacts.

CHAPTER 3: RESEARCH MATERIALS AND METHODS

Research Materials

Featherwork is by definition applied to some form of underlying substrate, thus analysis of the materials to which the feathers are attached should provide insights into the artifacts themselves. The materials studied for this project were 134 featherwork items from Accessions #18046 and #20517, donated to the Milwaukee Public Museum in the early 1960s by Malcolm K. Whyte. The “Display Name” listed for each artifact in the current MPM KE EMu database contains a variety of labels as shown in Table 1 that were applied to the objects during the accession process. As I studied the artifacts themselves, I found it efficient to group them into three broad categories: Textiles, Non-Textile Ornamental Devices, and Miscellaneous. Table 1 summarizes the subcategories included in each of these three broader categories and the number of items in each category. The broader categories were defined based on general definitions of the base materials or construction underlying the feathers. Textile-based featherworks are woven fabrics to which feathers were attached, usually by sewing or weaving. In contrast, the Non-Textile Ornamental Devices category was defined as those artifacts where the feathers were not attached to textiles, but that had been created generally with some form of braiding or stick as the base. The Miscellaneous category included groups of unworked feathers (see Figure 26) and other objects that were too fragmented or unique to classify.



Figure 26: Example of unworked feathers and feather strings MPM catalog #A52197 (Photo by Diane Newbury)

Photos of object examples can be found in Chapter 1, with the Textiles category shown in Figure 6 and Figure 7 and the Ornamental Devices (Non-Textile) category shown in Figure 2 through Figure 5. All artifacts may be found in Appendix B. As can be seen in Figure 27, more than half the items were Non-Textile Ornamental Devices.

Basic measurements, photos, and observations were recorded for all 134 artifacts (Appendix B), but most of my detailed analysis was focused on the two categories comprising the majority of the collection: Textiles and Non-Textile Ornamental Devices.

Table 1: Summary of Featherworked Artifacts in MPM Accessions #18046 and #20517

Research Groups (Individual counts by Display Name in MPM KE EMu database)	Count
Textiles	49
Band (1), Belt (1), Coca bag (3), Feather covered fragment (1), Feather covered piece (5), Feathered cloth (1), Garment (9), Headband ? (1), Mummy face (1), Ornamental belt (1), Poncho (21), Textile (4)	
Non-textile ornamental devices (pins/plumes/fans/headdresses)	72
Fan (1), Feathers (2), Feathered Whisk (1), Headdress ornament (4), Ornament (8), Ornamental device (56)	
Miscellaneous	13
Feathers (4), Head strap (1), Headband ? (1), Spare feathers (2), Ornamental device (1), Pendant (2), Wristlets (2)	
Grand Total	134

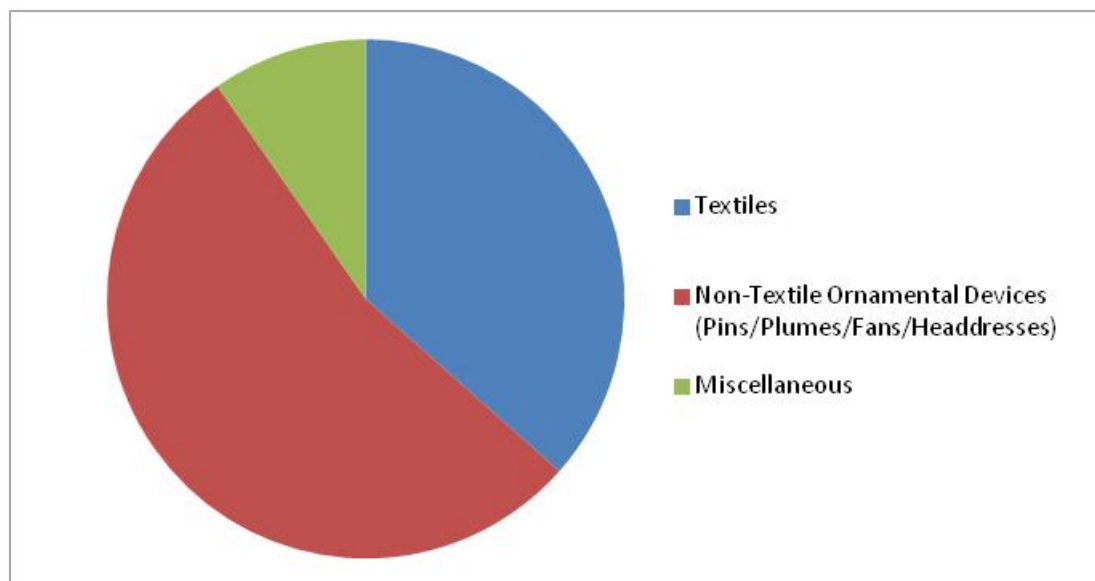


Figure 27: Summary chart of featherworked artifacts in MPM accessions #18046 and #20517

Research Methods

Literature Review / Consultation with Experts

Potential diagnostic information for similar featherworked objects was compiled based on a review of publications detailing cultural or temporal indicators published by art historians, textile specialists, and featherwork experts, plus details regarding featherworked artifacts from documented archaeological sites and reports, whenever these have been reported. These potential diagnostics or cultural signatures are summarized in tabular form in Chapter 4. All citations from these resources are noted with the specific cultural or temporal indicators as referenced in the source literature.

Reviews of prehistoric iconography and ethnohistorical or ethnographic sources were performed (all are cited in Chapter 4) in an effort to find any associations with the collection artifacts in order to attempt to understand potential use or function of the

artifacts. This was not an exhaustive review of iconography, as that could be a separate research project itself. Imagery of feathered objects or feather-like objects in use were sought for indications of function for similar artifacts in the MPM collection, as well as comparisons of MPM items to scholarly resources that provided potential object utility.

Throughout the project I consulted with experts in a number of related areas. Donald Proulx, an archaeologist specializing in Pre-Columbian Peru and the Ica/Nazca regions, shared iconography and information related to the Nasca cultures. Valerie Davis, MPM's textile expert, helped with fiber analysis and identification, while experts in featherwork such as Heidi King and Christine Giuntini, both of MMA, answered featherwork-specific questions. With no experts locally who were conversant in the subtleties of Pre-Columbian textile construction, I relied heavily on email consultations with experts such as Anne Tiballi, Anne Peters, and Jeffrey Splitstoser. The late Andrea Stone, Professor of Art History and a specialist in Mesoamerican and South American Pre-Columbian art, offered insights into looking for repeated imagery and structural commonalities that might be seen as cultural signatures. Karon Winzenz of the University of Wisconsin – Green Bay who has studied miniature textiles as grave offerings shared her knowledge and research thereby allowing me to better identify the miniature textiles/garments in the MPM collection.

Artifact Description / Museum Visits

Methods of study involved qualitative analysis of each artifact, resulting in documentation of form, dimensions, and construction methods. For each item I completed a visual review and analysis of gross morphology, recording measurements, textile construction features, imagery, and color usage. Gross morphology analysis was

performed visually and with the use of a magnifying glass and reflected-light binocular scope. Fiber structural analysis was performed using a 100X-400X transmitted-light microscope and a Dino-Lite 200X USB digital microscope.

Each artifact was compared to the cultural indicators and potential diagnostic information identified in the literature review and summarized in Table 2 through Table 6 in Chapter 4. Comparisons were also made with extant collections in other museums via research visits and online collections data when direct examination was not possible. The museums I visited in Spring of 2013 were the American Museum of Natural History, the Metropolitan Museum of Art in New York, and the Brooklyn Museum in Brooklyn. Online museum resources consulted included, but were not limited to, the Dumbarton Oaks Research Library and Collection, Peabody Museum of Archaeology and Ethnology at Harvard University, University of Pennsylvania Museum of Archaeology and Anthropology, and the University of Wisconsin Madison: The Helen Louise Allen Textile Collection. For a comprehensive list of museums with known featherwork items, see Heidi King's *Peruvian Featherworks* book (2012b:209).

Materials Identification

Wherever possible, I identified the materials used, such as cotton, camelid, vegetal, feathers, or other matter. Multiple approaches used in this identification of material included microscopic review and analysis of materials, scale casting of representative hair or fur samples with comparisons to textile and fiber identification resources, consulting experts in taxidermy (Wendy Christensen), forensics (Barry Baker and Bonnie Yates of US Fish and Wildlife), museum conservation (Christine del Re), and MPM's

curators (Dawn Scher Thomae in Anthropology, Neil Luebke in Botany, and Julia Colby in Zoology).

Certain artifacts include fur and skin, which necessitated additional research methods. In an effort to find fur and hair to compare to the skin and fur on those artifacts, I visited a local llama farm and the Racine Zoological Society where I studied fur samples from multiple llamas (*Camelidae*), an Andean spectacled bear (*Tremarctos ornatus*), and a two-toed sloth (*Choloepus hoffmanni*).

Structural Description

Analysis and documentation of artifact construction methods such as yarn structures of spin and ply, weaving techniques regarding warp and weft structures, and form and function of completed artifacts were described for textile-based featherwork and compared to scholarly literature describing Andean textiles. Similar detailed analysis was performed on the non-textile featherworked objects in an effort to determine potential function and use. Methods of construction for featherworked decorative objects such as fans, which had not been previously detailed in the literature, were recorded in order to assess potential function based on form and to allow future study to build from this effort.

O'Neill (1984:145-150; 2005:348-361) suggests that identification of feathers by species is generally not useful in Peruvian featherwork. He notes that bird species chosen for use in featherwork in the Pre-Columbian Andes were often limited to a few favored species regardless of time, place, or culture. These species include all varieties of macaws, multiple parrot varieties, Muscovy duck, flamingos, cormorant, tanagers, cotinga, herons, and egrets (O'Neill 2005:352). In general the bird species of the Andean coast are not colorful (O'Neill 2005:349); indicating that trade between the coastal people and those in

the Amazon must have been well established to provide so many colorful feathers for the featherwork. Because of the overlap in colors and descriptions for the various feathers from varying species, I did not attempt to identify bird species used in the MPM collection, although the majority of yellows, blues, oranges, and greens are most likely from the macaws and parrots identified by O'Neill. I recorded descriptions, including colors and feather lengths, for each artifact as these are two of the characteristics that O'Neill and others have used in their descriptions of Andean artifact feathers. See Appendix F for a summarized list of bird species used in Andean Pre-Columbian featherwork as identified by O'Neill (2005:355) and Appendix B for the feather descriptions for each artifact.

Identification of the type of vegetal material other than cotton was not pursued for this study as this would have required destructive analysis techniques, which is not permitted by the MPM. Basic plant fiber identification was limited to observations of color, shape, and fibrousness and can be found in the artifact descriptions in Appendix B.

Other methods

Radiocarbon dating has been applied to a small number of Pre-Columbian featherworked textiles. Some are in museum collections, although the majority of the dated objects are in private collections. In part, this is likely due to museum policies for avoiding or minimizing the use of destructive testing techniques. Newer approaches to the use of radiocarbon dating as suggested by Van Strydonck (1992:931-932) which are less destructive in nature may make this a more acceptable approach in future, although the costs may continue to limit this method for most museums. Nonetheless, even though there were a limited number of artifacts involved in these previous radiocarbon dating

studies, the results proved most useful with textile-based items, such as tabards and miniature textiles. The items chosen to be radiocarbon dated are some of the more common textile-based objects found in collections and were therefore readily comparable to a few of the artifacts in the MPM collection. This provided a secondary line of evidence for possible date ranges of the artifacts studied. Comparisons where appropriate have been drawn between the MPM collection and known radiocarbon dated objects and are discussed in the appropriate Results and Analysis chapters. A brief summary list of featherwork in other collections tested via radiocarbon methods included in Appendix D.

Imagery reconstruction of two of the MPM collection tabards was performed in order to better understand the potential original form, with the intention of comparing to known similar artifacts in the literature and in other collections.

Chapter Summary

The research items for this thesis were all Andean artifacts composed of feathers attached to a base of differing materials and construction. For ease of evaluation, the study collection was categorized into those artifacts composed of textiles, those that are decorative objects with feathers not attached to textiles, and a miscellaneous category with items too fragmentary or unusual to categorize.

The research methods were necessarily diverse and used multiple lines of evidence to answer the project's primary goals of reconstructing potential time period and culture and/or artifact function. Literature reviews encompassed multiple disciplines including archaeology, art history, textile studies, and museum publications. Additional literature searches included reviewing for similar objects identified either ethnographically,

ethnohistorically, or in iconography. Each artifact was studied and described, artifact materials were identified wherever possible, with structural descriptions and analysis applied to each item. Secondary lines of evidence included comparisons to known radiocarbon dated artifacts, as well as a basic reconstruction of two of the artifacts to better envision size, shape, and color usage.

CHAPTER 4: LINES OF EVIDENCE USED IN THIS STUDY

Introduction

Structural details of featherworked items may be culturally specific (Rodman and Cassman 1995:33, 39). Mary Elizabeth King (1978:89), an archaeologist with a concentration in textiles, advised detailed studies of pre-historic textiles to parse out potential cultural indicators by focusing on aspects of textile construction (selvages, warp, and weft), structure of the yarns (spin and ply), and types of fibers used (animal, cotton, other plant). This chapter includes potential provenience indicators and approaches for textiles and for non-textile decorative objects.

Textiles

Textiles or woven cloth are defined as “the product obtained by the intercrossing at right angles of yarns divided into at least two elements – warp and weft” (d’Harcourt 1962:10). (See Appendix E: Textile Terminology Master List for a complete list of relevant textile terminology used in this thesis.)

Although there have been many published works over the last century discussing Andean Pre-Columbian textiles, there are few that encompass a controlled analysis of large numbers of provenienced items. This means that much of the research is at a more descriptive or qualitative stage, although certain sets of descriptions are perceived as distinctive of particular cultures, time periods, or places.

In this section of the chapter, I have compiled cultural, geographical, and temporal indicators associated with textiles and featherworked textiles identified by archaeologists,

art historians, Pre-Columbian textile experts, and museum specialists. Due to the very complex nature of trying to identify so many varied potential provenience indicators, I discuss each of them according to sub-categories reflective of M.E. King's suggested approach. Summary tables are included where appropriate to delineate any provenience indicators suggested by the literature. The primary sub-categories of potential provenience indicators are as follows:

- raw materials;
- yarn construction such as spin and ply;
- weaving construction such as warp, weft, finishing techniques;
- form and apparent function of the finished woven material;
- feather string construction; and
- stylistic patterns of color and iconography.

When radiocarbon dating can be associated with any of these indicators, this is noted.

Textiles: Raw Materials as Potential Provenience Indicators

According to a number of resources, raw materials used in textile and featherworked textile production can be informative as to origin. The following table lists those raw materials most frequently found in Pre-Columbian textiles and what scholars have posited as to potential provenience for Andean textile-based artifacts based on the presence of these materials. Cotton has been found to predominate in objects of coastal origin (Murra 1995:276). Camelid fibers appear more frequently in textiles originating from the highlands (Murra 1995:276; Rodman and Cassman 1995:33; Martin 2006:319). Sheep were introduced by the Spanish and therefore if sheep's wool is found in a textile-

based artifact that would indicate that the artifact must date to post-conquest times (Stone-Miller 1994:20). Note that in the tables those indicators that the referenced sources defined as being very characteristic or common for the culture or region are shown with an asterisk (*).

Table 2: Raw Material as Potential Provenience Indicator

Indicators	Potential Provenience	References
Raw Materials		
All cotton or predominantly cotton with camelid wool limited to decorative or special designs	Coastal origins *	Murra 1995:276; Rodman and Cassman 1995:33; Martin 2006:319
Predominantly white cotton, camelid used sparingly in superstructural techniques	Chimú	Stone-Miller 2002a:170
All camelid wool or predominantly camelid wool	Highland origins *	Murra 1995:276; Rodman and Cassman 1995:33; Martin 2006:319
Use of sheep's wool, linen, and silk	Post-Conquest *	Stone-Miller 1994:20

In general, I have used textile terminology from *The Primary Structures of Fabrics* by Irene Emery. Her work is considered to be a seminal effort to define textile terms in a consistent and universal manner (M.E. King 2000:42; Rowe 1979a:7) and is referenced in most publications discussing textile production. Appendix E lists relevant textile terms used in this paper. This thesis will use the term “yarn” throughout the discussion of textile production. The exception to this approach is in the discussion of the construction

of the MPM items, where the term “thread” is used to distinguish very slender yarns similar to modern sewing threads.

Textiles: Yarn Construction as Potential Provenience Indicator

Spinning of yarns used in textile production occurs in one of two directions – either to the left or to the right – with the resulting threads showing either an “S” or “Z” spin (twist direction resembling the central portion of each letter). Figure 28 illustrates this. For purposes of this project and for the sake of clarity, I use the term “spin” to discuss this initial step rather than the more general term “twist.”

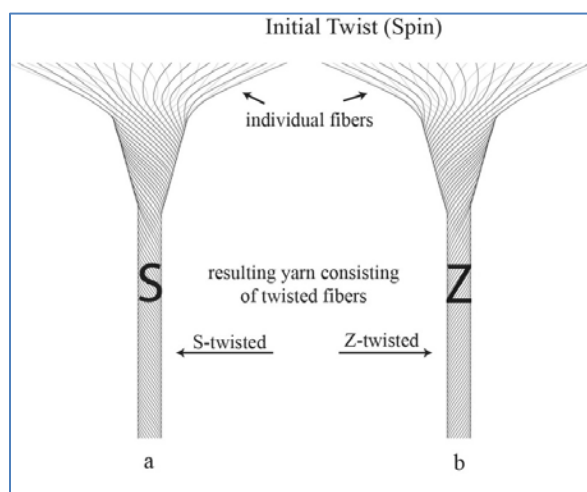


Figure 28: Diagram of spin (Splitstoser 2012:1)

For many years it was thought that spin direction in Peruvian textiles predominated regionally and temporally in Pre-Columbian times with the S-spin associated with the North Coast and the Z-spin with the South Coast (Bird 1979:16; Wallace 1979:32; Paul 1991a:2; Paul and Niles 1992:8-10; Conklin 1996a:326; Brinckerhoff 2000:6).

Unfortunately the literature is often vague as to just how long such predominance of spin direction may have held true. Those authors who do address temporality along with regionality of the spin-direction indicate that Z-spun yarns are typical of South Coast

throughout Pre-Columbian times with exceptions of S-spun appearing in finer, more light weight fabrics (Wallace 1991:65-66; Bruhns 1994:157). Thus, where possible it seems more reliable to look for cultural distinctions where specific spin direction has been identified.

Plying of threads or yarns may also have some diagnostic aspects. Once the initial yarns are spun, a secondary step is often performed wherein two or more single yarns are twisted together or plied. Figure 29 illustrates this technique. This plying step generally makes for a stronger yarn than the single spun yarn. In weaving a stronger yarn is usually desirable. Plying will often be done in the direction opposite from the initial direction of spin such that S-spun yarns will be plied in a Z direction or Z-spun will be S-plied. When two or more spun yarns are twisted together the fibers have a natural tendency to twist in the opposite direction of the original spin, thus this opposite ply to the original spin accommodates the fibers' natural tendencies (Splitstoser 2012:3). When a matching direction of spin and ply are seen, for example S-spin with S-ply, this indicates a clear and possibly meaningful choice by the weaver. A matched spin and ply direction was rarely encountered in my research. Some ethnographic accounts suggest that certain spin directions have metaphysical associations (Martin 2006:320).

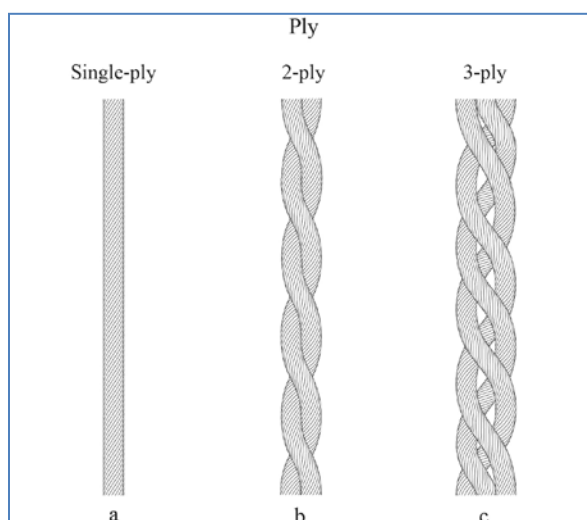


Figure 29: Diagram of ply (Splitstoser 2012:1)

Most descriptions of plied materials use “2-ply” to describe two yarns twisted together; “3-ply” for three yarns twisted together, and the like. Note that in the tables those indicators that the referenced sources have defined as being very characteristic or common for the culture or region are shown with an asterisk (*).

Table 3: Yarn Construction as Potential Provenience Indicator

Indicators	Potential Provenience	References
Yarn Construction		
Three-ply warp yarns (cotton or camelid)	Inca *	Rodman and Cassman 1995:34
Camelid fibers that are Z-spun, S-plied with two or three plies	Inca	A. Rowe 2012:84; Bjerregaard 2007:31
Weft created by pairing an S-spun yarn and a Z-spun yarn	Early Initial Period on the Central and North-Central Coasts	Wallace 1979:46
Single-ply warp	“Never” on the South Coast	Wallace 1979:32
Cotton yarns Z-spun, 2-ply S	Central Coast	A. Rowe 1996c:425
Cotton yarns Z-spun, multiple-plied S	South Coast	Phipps 1996:114

Indicators	Potential Provenience	References
Camelid, S-spun with 2-ply Z, and the degree of twist somewhat loose	Chimú	A. Rowe 1984:25
Bi-chrome cotton warps	Pucara, Tiwanaku, and some Wari	A. Rowe 1986:153
Textile composed of <i>only</i> S-spun cotton yarns	Northern Peru	M.E. King 2000:46

Textiles: Weaving Construction as Potential Provenience Indicator

A woven cloth or textile is made up of two primary elements, the warp and the weft. The warp is composed of parallel yarns that run longitudinally in a loom or fabric (Emery 1980:74). Looms cannot function unless the warp is under tension, so all looms also contain a means for stretching the warp (Textile Museum 2003). The weft is composed of transverse elements in a fabric (generally parallel to each other and to the terminal edges or ends of the fabric) which cross and interwork with the warp elements at more or less right angles (Emery 1980:74).

A selvage is the finished edge of a woven fabric. The warp selvage is the edge where the warp yarns were wrapped around the top of the loom structure and the weft selvage is at the edge where the weft yarns were doubled and passed back through the textile during weaving. Completed Pre-Columbian woven artifacts in Peru commonly have four selvages, two warp and two weft. In contrast, European weaving tends to produce two weft selvages only, such that if the observer finds the selvage one can easily determine the location of warp versus weft. Having a selvage on all four edges of an Andean woven piece means that determining warp versus weft can be more challenging. The manner of finishing these selvages can be culturally specific, but may in some cases be so subtle as

to require an Andean textile expert to identify (Rodman and Cassman 1995:34; Martin 2006:319, 321, 323). Andean weavers did not cut textiles to create garments, rather they completed four-selvage elements that were woven as complete units and then sewn together to make the desired item; this tended to create generally more loose or boxy clothing (Bjerregaard 2007:30; Bruhns 1994:162; Stone-Miller 1994:22). Mary Elizabeth King offered some clues for distinguishing warp selvages from weft selvages on Andean textiles: “As a rule, one or more shots of heavier or multiple wefts, referred to as heading cords or loomstrings, are at each loom end, while the side selvages rarely have other than paired or slightly compacted warps” (M.E. King 1965:1).

Warp and weft structures such as direction of warp on a finished textile, number of warp versus weft elements, techniques for finishing selvages, and other structural traits have been seen to be more common for certain cultural, regional or temporal groups. Table 4 lists those traits specific to warp and weft structures as identified by scholars consulted. Note that those indicators that the referenced sources have defined as being very characteristic or common for the culture or region are shown with an asterisk (*).

Table 4: Weaving Construction as Potential Provenience Indicator

Indicators	Potential Provenience	References
Weaving and Construction		
Cotton warp	Typical of Wari, (not Tiwanaku or Inca)	Stone-Miller 1992:339; Rodman and Cassman 1995:39

Indicators	Potential Provenience	References
Cotton, unplied paired warp and single weft Figure 30 illustrates this.	Chimú * (some Chinchá from Late Intermediate, if single-ply yarn is S-spun)	A. Rowe 1984:24; Paul and Niles 1992:12; Conklin 1996a:325; A. Rowe 1996c:425 Garaventa 1979:229)
Paired weft with twined-warp selvages	Early Paracas or early Ica Valley (may occur elsewhere in later periods)	Wallace 1962:311, 313
Paired weft, warp-predominant weave, all cotton	South Coast	H. King 2012b:132
Weft-faced finer cloth and warp-faced everyday fabrics (such as for belts), less often balanced-weave textiles	Very typical of Inca*	A. Rowe 2012:84
Warp selvages composed of chained-warp loops	Highland, perhaps Wari	A. Rowe 1986:153
Cotton warps, camelid wefts, both of which are 2-ply, S-spun, and Z-plied	Wari (highland)	Conklin 1996a:324
Camelid wefts, Z-spun, 2-ply S	Wari and Inca	A. Rowe 1996b:399
Warp yarns more tightly twisted than weft yarns	Very typical of Inca*	A. Rowe as quoted by Baker 2001:62
Textile edges finished with cross-knit loop embroidery	Very typical of Inca* may also be seen in some Aymara and other pre-Tiwanaku of Chile	A. Rowe 2012:84; Baker 2001:48, 62
Wide (horizontal) loom, two-web construction, mixed cotton and camelid warp, no special selvage treatment	Perhaps Recuay	Rodman and Cassman 1995:34

Indicators	Potential Provenience	References
High thread counts/high warp and weft counts (For example, 10 warps and 32-46 wefts per cm, or higher)	Highland Perhaps Wari	A. Rowe 1986:153; A. Rowe 1996b:399
Thread counts of several hundred per cm	Perhaps Inca	Stone-Miller 2002b:210-212
Unfinished or less-carefully finished back or inner side versus carefully finished outer or front-facing side, weft yarns sometimes carried loose on the back of the fabric between color use	Chimú *	A. Rowe 1996c:425; Stone-Miller 2002a:264
Weavings on a large scale, sometimes as big as 6 by 4 feet	Chimú	Stone-Miller 2002a:171
Carefully finished fronts and backs, delicate and accurate execution of assembly, precision in details for figural or geometric patterns	Chancay *	Stone-Miller 2002a:265
Plaids composed by varying the color of the warp or weft yarns	Common throughout ancient Peru	D'Harcourt 1962:16

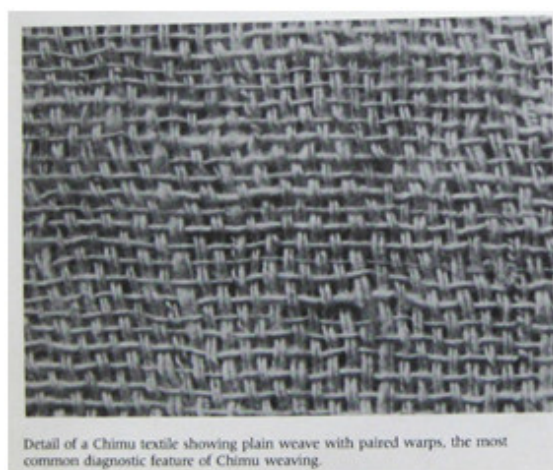


Figure 30: Diagnostic Chimú plain weave showing paired warps (A. Rowe 1984:24)

Textiles: Form and Function as Potential Provenience Indicator

Many textile-based artifacts in museum collections are identifiable as items of clothing, with a select few identified as potential wall hangings (H. King 2012b:29). A form of garment found in most collections is a cloak-like item known variously as a tunic, tabard, *unku* (Quechua language term for man's tunic), and other names.

Many authors use the terms "tabard" and "tunic" interchangeably, but Esther Pasztory (2008:4) distinguishes the two items of clothing: "The standard Peruvian male garment, the tabard is a long shirt, like a tunic, with a slit for the neck. However, the sides of a tabard are open and have ties to adjust it to the body, whereas the sides of a tunic are sewn. Some tabards are about the size and shape of tunics" (Pasztory 2008:4).

Two smaller forms of feather covered textiles that appear in collections are miniature textiles and coca bags, both of which have specialized form and function. Miniature textiles have been associated with multiple Andean cultures and even today are created as offerings to ask assistance of a deity (Heckman 2003:122, 171). Bruce (1986:191) says that the tradition of miniatures dates back to at least the 7th century BC and perhaps older. Examples of miniatures have been associated with the Moche (A. Rowe 1984:96-106; Bruce 1986:192), the Chancay (Brinckerhoff 2000:32), the Chimú, and the Wari (Brinckerhoff 2000:37). The famous, or perhaps infamous, Inca child sacrifices were accompanied into the afterlife with small gold or silver statues and associated miniature apparel, some containing detailed featherwork (see for example: Brinckerhoff 2000:35; Reinhard 2012:79-87). These miniature textiles seem to replicate actual clothing styles

(Conklin et al 1996:419-422) and may even be identifiable as to gender, although this is an area of some debate. Conklin et al (1996:419) also note that such miniatures were more commonly found in the South Coast regions.

Coca bags are small purses (sometimes called *chuspa*). These were used to carry coca leaves and the necessary equipment for chewing coca as a stimulant, a centuries-old practice particularly in the higher altitudes. It is assumed that the bags could easily have been used to carry other small items; they are often associated with male apparel (Bruhns 1994:166).

The use of the term “tunic” in the following table is based on the use of that term by the scholars referenced in the table. Most authors use the term “tunic” to generically represent any textile that is folded at the mid-point and that is worn slipped over the head and draped over the shoulders from front to back.

Table 5: Form and Function as Potential Provenience Indicator

Indicators	Potential Provenience	References
Tunics not sewn together on sides (i.e., “tabard”)	Chancay, Chimú, Ica (?) or Ica/Chincha, Nasca, Wari, pre-conquest “provincial” Inca	Pasztory 2008:4; H. King 2012b:104-147
Tabard composed of two webs (panels) joined along the center	Commonly seen on North and Central Coast garments	H. King 2012b:138
Tunics woven so that the warp was horizontal/widthwise when worn	Inca Tiwanaku, Wari	A. Rowe 1986:153 Rodman and Cassman 1995:34 Rodman and Cassman 1995:37
Tunics woven with a single web and generally hanging to knee length	Inca	Rodman and Cassman 1995:34

Indicators	Potential Provenience	References
Tunics woven so that warp was vertical/lengthwise when worn	Coastal origins	A. Rowe 1986:153 Rodman and Cassman 1995:34
Tunics woven to a shorter length roughly waist length	Coastal origins, (Early north coastal)	Rodman and Cassman 1995:34
Tunics that are notably large, averaging 204 X 101 cm (80.3 X 39.8 inches), slightly wider than long when worn	Potentially Wari (coastal only after the Tiwanaku/Wari expansion)	Stone-Miller and McEwan 1991:62 Reid 1986:9
Tunics made to be worn hanging to front and back, folded at the shoulder, and stitched closed on both sides beneath the arms. Constructed with two-ply camelid fiber warps and wefts, woven on wide (horizontal) loom as one piece (one web) with the warp vertical, but worn with the warp horizontal	Tiwanaku	Rodman and Cassman 1995:37
Tunics composed of a mix of cotton and/or camelid, made of two rectangles of cloth (webs) stitched together down the center front, woven on wide (horizontal) loom, selvages completed after removal from the loom, warp ends may be cut, neck slit completed after weaving during the embroidery phase, worn with warp oriented horizontally	Wari (highland)	Stone-Miller 1992:339; Rodman and Cassman 1995:34, 37, 39

Indicators	Potential Provenience	References
Miniature textiles	More commonly found in the South Coast regions, although not limited there	Conklin et al (1996:419)

Textiles: Other Potential Provenience Indicators

Colors

Colors often carry meaning and visual messages intended for observers both nearby and at a distance. Often colors may be reserved for individuals based on status, kin affiliations, gender, or other culturally significant markers. For the Inca, colors carried many meanings. Colorful garments in general were worn only by the elite and the more colors worn, the more elite the individual, with red and yellow indicative of a political role (Costin 1998:128). Ethnographic accounts from South America show a nearly universal tendency to assign deep and significant meanings to both yellows and reds (Bensen 1997:73).

The artifacts in the MPM collection are distinctly colorful and often combine multiple colors on one object. Some of the color traits identified in Table 6 appear on a number of the textiles in the collection, which may yield insights as to possible meaning, as well as, cultural indicators.

Iconography and Pattern

Gender and status might be distinguished via color, imagery, unique designs, or garment styles. Inca women wore an *aqsu*, a long cloth wrapped around the body and held in place with a belt, whereas the men wore an *unku* (sometimes spelled *unqu*) tunic which hung

front and back with a neck slit allowing room for the head and neck (Costin 1998:129). The direction of the neck slit/opening on tunics in relation to the gender of the wearer, horizontal neck slits for women and vertical for men, has been associated with the Inca and with some north coastal cultures such as Chancay (Bruce 1986:183, 190). Inca designs were clear markers of status, political role, and kinship, documented by historical record and imagery (Guaman Poma de Ayala 1980[1615]:90,128,328). The quality of the cloth and weave could also indicate status, such as Inca *qompi* cloth which was made of soft wool, tightly woven, and often decorated. Plain *qompi* was often covered in feathers, shells, or metal disks (Murra 1995:278; Costin 1998:129). Feather-covered tunics or miniature tabards with a large, concentric oval design on the front were reserved for men (Conklin et al 1996:419-422). At least one such miniature tabard was archaeologically excavated by Dr. Max Uhle at Pachacamac in 1896 (Greene 1991:23), although this may have been an import from South Coast regions where such miniatures were more commonly found (Conklin et al 1996:419).

The MPM collection includes a number of textile-based featherwork pieces where some or all of the original design may be discerned. The various images and patterns listed in Table 6 may yield additional insights as to cultural or temporal origins.

Table 6: Color, Iconography, and Pattern as Potential Provenience Indicators

Indicators	Potential Provenience	References
	Colors and Color Changes	
Color change using weft interlock	Highland origins, may be seen coastally in later periods (Middle Horizon or later) following Wari influence	Paul and Niles 1992:13; Rodman and Cassman 1995:33 A. Rowe 1979b:186

Indicators	Potential Provenience	References
Color change using slit tapestry	Coastal origins	Paul and Niles 1992:13; Rodman and Cassman 1995:33
Color schemes combining strong scarlets (usually from cochineal), dark brown black, white, and varying golds	Inca	Stone-Miller 2002a:270
Color schemes dominated by primary colors, with black outlines, rectilinear motifs	Late Nasca (Middle Horizon) or early Ica (Late Intermediate to Late Horizon)	A. Rowe 1979b:186 Stone-Miller 2002a:64 H. King 2012b:20
Color schemes combining red, pink, yellow, gold, purple, and white	Perhaps Wari	A. Rowe 1996b:399
Iconography and Pattern		
Repeated use of patterns of steps and stepped diamonds	Inca	Stone-Miller 2002a:270
Stepped yoke bands on tunics, with occasional changes in color above and below the design band	Inca	Stone-Miller 2002a:270
Stepped yoke patterns on tunics	Could be Chimú	Stone-Miller 2002a:270
A large lone figure or symbol on a colored background	Common during the third phase of the Nasca culture around 200 B.C.	Reid 1990:7
Figurative themes	Paracas, Chimú, Chancay	Reid 1986:13-14
Ideological themes, symbols and symbolism	Tiwanaku, Wari, Inca	Reid 1986:13-14
Nonfigurative, often blocks or large areas of color	Coastal Nasca, Wari, Ica	Reid 1986:13-14

Indicators	Potential Provenience	References
Large, concentric oval design	Male clothing (Lower Ica Valley, Middle or Late Horizon)	Conklin et al 1996:419-422
Stepped triangle patterns	Female clothing (Lower Ica Valley, Middle or Late Horizon)	Conklin et al 1996:419-422
Tunic with vertical neck slit	Male clothing – Inca and Chancay	Bruce 1986:183, 190
Tunic with horizontal neck slit	Female clothing – Inca and Chancay	Bruce 1986:183, 190
Angular hook motif 	Common for Nasca/Wari, late (7 th -10 th centuries) Wari and Tiwanaku	H. King 2012b:136 Reid 1986:18
Scroll or wave motif 	North and Central Coasts Wari and Tiwanaku	H. King 2012b:140-142 Reid 1986:18
Inverted step triangle motif 	North and Central Coasts (13 th to early 16 th centuries); Late Wari; Ica/Chincha in the centuries before the Conquest	H. King 2012b:128, 144-145

Feather Strings as Potential Provenience Indicators

Some scholars have attempted to sketch and detail the unique aspects of the feather strings as seen on feather-covered textiles in their studies. Unfortunately, most of these detailed drawings were created for featherworked textiles for which no firm provenience has ever been determined. Additionally, many of the drawings of feather string systems that I found do not state which artifact they were drawn from, a problem also noted by Virginia Greene (1991:20). Exceptions include the work of Eugenio Yacovleff with Paracas materials feather string assemblage diagrams, shown previously in Figure 18 and

the Wari hanging at the Metropolitan Museum of Art, feather assemblage shown previously in Figure 19.

According to Conklin et al (1996:418) on one featherworked textile that they studied, the knots and materials used varied according to the feather color of the feather strings. They suggested that variances in feather strings may actually reflect differences in individual featherworkers. This raises the question of how to distinguish between regional manufacturing styles and individual styles. Documentation of knotting and fiber variations within a single item and between a large number of items associated with different regions could contribute to answering this question. I did not include this information in my documentation of the MPM items, and future attention to this detail may have value.

Non-Textile Decorative Objects: Fans, Plumes, Pins, and Headdresses

While much can be learned about feather-covered textiles by studying the weaving techniques, the more abundant small decorative items such as fans, plumes, pins, and headdresses in most museum collections present a different challenge. Many scholars and much of the literature either do not discuss smaller feathered objects or have only very brief commentary or sketches included. Terms for these smaller artifacts tend to be used somewhat inconsistently. For purposes of this thesis, I use the terms as follows: *fans* or *fan-shapes* are feathered objects with a general fan-like shape (see multiple examples in Chapter 1, Figure 2 through Figure 4); *feathers* and *feather bundles* are groups of feathers tied together to which little additional has been done; *plumes* and *pins* are shorter more slender wooden sticks to which feathers have been attached (see examples in Chapter 1, Figure 5). Pins may be as small as 5-6 cm or as long as 30-60 cm and will often have a

pointed or rounded tip. Many of these objects may have been used as components of headdresses, but they could also have been handheld or used for some other decorative purpose.

Non-Textile Decorative Objects: Construction Methods as Potential Provenience and/or Function Indicators

Close examination of the construction of the various feathered non-textiles may indicate potential function or may provide other contextual information. For example, studying the yarns used to bind the portions together may prove fruitful when compared to the already known aspects of spin and ply as documented for Andean textiles.

Paracas feathered fans are very distinctive both in construction and appearance. The handle is composed of reeds (Peters 2000:243) or other very firm vegetal material woven together. The shafts of the feathers are inserted into woven pockets in the fan handle. This firm structure would have allowed for the completed object to be held in the hand with the feathers splayed upward in a half-moon shape quite similar to imagery seen in the Paracas tapestries and weavings. This construction style appears to be unique to Paracas.

Non-Textile Decorative Objects: Imagery and Iconography as Potential Provenience and/or Function Indicators

Imagery found on other artifacts may be helpful in discerning potential original context, cultural affiliation, or function of the non-textile research artifacts. A complete analysis of such iconography would be beyond the scope of this thesis; only a few images are included here that appear to illustrate examples of feather artifacts in use.

Art historians such as Rebecca Stone-Miller have noted that there is a long Andean history of “high-status crescent-shaped headdress elements” (Stone-Miller 2002a:197-198). Feathered headdress-like elements, when found in burial contexts, are often near or on the head of the mummy (for examples see Conklin 1996b:104-107). One clear suggestion of fan-shaped featherwork being placed somewhere other than near the head comes from Paracas burials. Some Paracas mummy bundles (or *fardo*) have a fan-shaped feathered item placed on the front mid-to-upper portion of the mummy bundle (see Figure 31), which according to Mary Frame (2001:62) is suggestive of intentional association with the heart region. Additional imagery of what Frame (2001:60) contends are handheld fans appears on many of the Paracas embroidered textiles (see Figure 32).

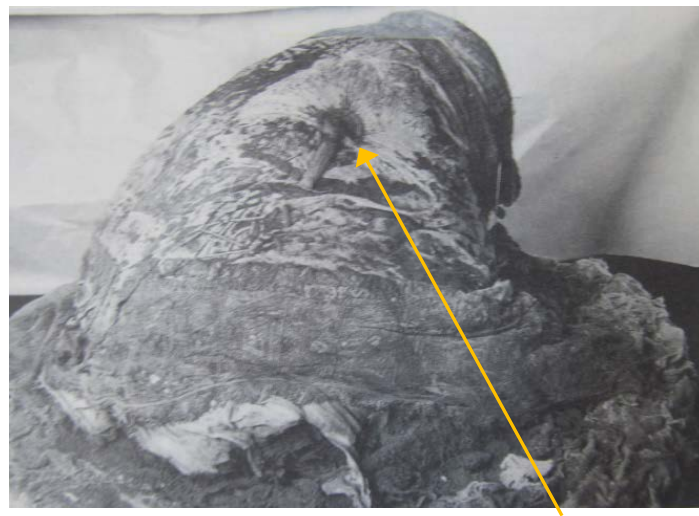


Figure 31: Paracas Necropolis bundle 114 with fan shape over heart region (Frame 2001:Figure 4.4)



Figure 32: Close up Paracas Necropolis fringe figure with fan shape in hand (Pasztor 1998:Figure 87)

Inca miniature figurines buried with child sacrifices were dressed in clothing quite similar to that found on the sacrificed children, including miniature feathered headdresses, see Figure 33 below (Pasztor 1998:Figure 110; J. Rowe 1996:302-303).



Figure 33: Inca miniature figurine wearing feathered headdress (Pasztor 1998:Figure 110)

Donald Proulx (2006:40), Professor of Anthropology Emeritus, University of Massachusetts, Amherst, states that one of the images most conspicuously missing from Nasca iconography and ceramic imagery is that of fans (i.e., handheld), although a number of these same image sources show humans and anthropomorphic creatures wearing fan-like headdresses. Proulx shared images of three ceramic vessels showing what may be feathered staffs (see Figure 34 through Figure 36). Proulx stated that these ceramic objects are thought to be “...Late Nasca (Phase 7) vessels of warriors holding what have been called ‘feather staffs.’... The inexplicable thing is, we have never found any actual examples of feather staffs in the archaeological record” (Personal communication, April 10, 2012). None of the items in the MPM collection has the size and form of the feathered staffs shown. However the image in Figure 36 illustrates three types of feathered objects in use: a feathered staff, a handheld feather fan, and a fan-like headdress item.



Figure 34: Late Nasca vessel showing feather staff (Art Institute of Chicago #55.2008)



Figure 35: Late Nasca vessel showing feather staff (Museo Larco in Lima #ML031682c)



Figure 36: Late Nasca vessel showing feather staff and other feathered objects (University of California LMA #4-8390)

Photos and descriptions (*comment in italics mine*) provided courtesy of Donald A. Proulx.

Chapter Summary

Lines of evidence for potential provenience vary between the major categories of study materials, specifically textiles versus the non-textile decorative objects. Cultural, regional, and temporal indicators have been recorded by scholars who have studied Andean textiles and found general trends and traits common to certain groups of textiles which are either well-provenienced or of generally accepted provenience. Traits such as raw materials used (cotton, camelid, other plant or animal), yarn construction (spin and ply), woven construction (warp and weft), and form and function of completed objects have all been identified as potentially carrying information regarding the artifact's origins. In this chapter these indicators have been summarized and listed with their respective possible culture, region, or time frame. Additional lines of evidence included comparison of color usage, designs and imagery on the artifacts, and comparison to similar items in other collections that have been radiocarbon dated. Potential future lines of research were identified regarding the structures of feather strings applied to the textiles for unique attributes potentially applicable to certain cultures or regions.

Non-textile artifacts required a somewhat different approach. Materials and some construction methods such as yarn structures were applicable to most, but additional lines of evidence were required and these included studying the manufacturing techniques, reviewing ethnographic and ethnohistoric accounts, and exploring iconographic imagery to parse out clues as to potential form and function.

CHAPTER 5: FEATHERWORKED TEXTILES – RESULTS

The MPM collection includes a variety of textile-based featherwork from larger items that appear to have been sections of what were full-size garments such as tunics or tabards to smaller, complete pieces such as miniature textiles or coca bags. I completed detailed examination of all artifacts in the research collection and have included my findings in the tables in Appendix B. While a number of the artifacts were too fragmentary to successfully compare to the previously identified provenience indicators, there were nonetheless a few that yielded potentially informative details.

A summary of the MPM textile-based archaeological featherwork collection was completed, with comparisons to the provenience indicators in Chapter 4. The summarized results are presented below. Individual discussions of two of the tabards and of smaller whole textiles variously labeled coca bags or miniature textiles are provided after the summary.

Analysis of MPM Textiles

I reviewed 49 individual featherworked textile artifacts in the MPM collection. Of this number, five (#A52295a-e) were reassembled as one textile and on display in the Museum preventing close examination, eleven (#A52296a-k) are sections of what was originally one tabard, and two (#A56325a and b) appear to have originally been sections of a single tabard. Therefore, for purposes of counting and summarizing unique textiles, those three groups were counted as one each, resulting in 31 unique (i.e., originally one single textile) woven fabrics for analysis. Table 7 provides descriptions of the MPM

featherwork artifact attributes as compared to the provenience categories, with a brief discussion as to potential inferences to be derived.

Table 7: Analysis of MPM Textiles

Provenience Category	Description	Suggested or Potential Provenience
Raw Materials	All cotton or predominately cotton with little or no evidence of other materials.	Coastal attributions
Yarn Construction	Z-spun 2-ply-S was evident for either warp or weft or both on 27 of the 31 textiles. (#A52269, A52270, A52272-A52280, A52282-A52285, A52288-A52291, A52294b, A52296, A54994, A54995, A54998-A55000.) Seven include one element that is single spun Z. (#A52269, A52278, A52282, A52291)	Z-spun 2-ply-S is common for Central and South Coastal regions. Traits associated with Inca (3-ply), North Peru (single S), or Chimú (camelid) were not evident.

Provenience Category	Description	Suggested or Potential Provenience
Woven Construction Warp and Weft	Warp versus weft are clearly distinct on 12 of the textiles (#A52269, A52270, A52272, A52274, A52275, A52277, A52278, A52285, A52289, A52296, A54994, A54998), with another five possibly identified as to warp versus weft (#A52273, A52276, A52291, A52294b, A52295). This allows the following assessments.	
	Seven of the identified and/or potential wefts were paired (#A52270, A52273, A52278, A52282, A52291, A54498, A54499).	Paired weft, warp-predominant weave, all cotton is a South Coastal trait.

Provenience Category	Description	Suggested or Potential Provenience
Woven Construction Warp and Weft (Cont.)	13 are balanced weave (#52269, A52275, A52278-A52280, A52283-A52285, A52289, A52297, A52294b, A55000), while 10 are warp-faced/dominant or potentially warp-faced/dominant (#52270, A52273, A52274, A52276, A52282, A52290, A52296, A54994, A54998).	Balanced weave is not indicative of a specific provenience, but suggests that Inca is less likely.
	Where warp can be determined, it appears to run vertically in the direction of how the textiles were likely worn. This applies to the two tabards (#A52272 and A52296).	Due to the vertical warp, Coastal origins are more likely while the following are less likely: Inca, Tiwanaku, and Wari.
	Of those textiles where the full width is evident, all appear to be narrower (40 cm) suggestive of a backstrap loom production. This applies to the two tabards (#A52272 and A52296).	Tabards constructed of two webs woven separately on a backstrap loom and joined in the center are common for both North and Central coasts, but are not common for Inca.

Provenience Category	Description	Suggested or Potential Provenience
Woven Construction Warp and Weft (Cont.)	Four fabrics (#A52277, A52280, A52283, A52289) are woven using two or more cotton colors to form a plaid design which would not have been visible to the viewer under the feather strings. These cotton colors do not appear dyed.	Plaid is a pan-Andean trait and again not a provenience indicator.
	Thread counts are generally around 12-16 per cm.	The lower thread counts found on most of the artifacts reduces the likelihood of Highland, Wari, or Inca provenience.
Form and Function	Eighteen artifacts are fragments whose original form and function cannot be determined. (#A52287, A52288, A52269a&b, A52270, A52273-A52280, A52282, A52283, A52289, A54998, A54999) Original form and function can be assessed for the miniature textiles and the two reconstructed tabards described in this chapter.	

Provenience Category	Description	Suggested or Potential Provenience
Form and Function (Cont.)	The tabards (#A52287, A52288) both may have measured roughly 150-152 cm long by 80 cm wide (approximately 60 by 32 inches). When worn, they would have been longer than wide, but would have been unlikely to reach to the ankles on the wearer.	No specific provenience is indicated, but a few are deemed less likely due to the traits of creating larger woven structures: Inca, Chimú, and Recuay. Shorter length, (i.e., not to the ankle) are more prevalent for coastal origins, less so for Inca. Longer than wide when worn, make this less likely for Wari. The tabard form makes this less likely for Tiwanaku.

Provenience Category	Description	Suggested or Potential Provenience
Form and Function / Iconography	Eight appear to be miniature textiles, with one that may be a miniature dress based on “female” imagery (#A52281), two being of uncertain imagery (#A52294b, A55004), and five possibly intended to represent male tunics (#A52284, A52285, A52291, A52294a, A55000). One of the tabards (#A52272) includes an oval/sunburst design, as well.	Miniature textiles with the oval/sunburst design and the stepped design attributed to female apparel were made for multiple centuries. The style of tabard with the large oval/sunburst design appears to have been made for a long time, perhaps as much as two or three centuries. Miniature textiles are common in many areas, but those with male (tunic) and female (dress) imagery are thought to be associated with the Lower Ica Valley.
Colors	Many of the non-miniature textiles have strong geometric or rectilinear designs.	Color schemes dominated by primary colors, with black outlines, rectilinear motifs are associated with Late Nasca (Middle Horizon) or early Ica (Late Intermediate to Late Horizon).

Provenience Category	Description	Suggested or Potential Provenience
Radiocarbon Dating	The tabards (#A52287, A52288) in the MPM collection are visually similar to two tabards from private collections that have been radiocarbon dated across the 11th through the 14th centuries AD. (See Table 8, this chapter.) The miniature textiles (#A52281, A52284, A52285, A52291, A52294a&b, A55000, A55004) in the MPM collection are similar to three miniature textiles (private, MMA, and DOA collections) that have been radiocarbon dated to the 12th and 13th centuries AD. (See Table 9, this chapter.)	Although not a direct affiliation with the MPM collection, this at least suggests a possible time frame from the 11th century or later.

Tunics and Tabards

Many of the textiles in the collection are fragmentary and original shape or function cannot be determined. A few are complete enough to determine that they were potentially garments such as tunics or tabards. These artifacts are described in more detail in this section.

Half Tabard (MPM Catalog #A52272)

MPM catalog #A52272 is probably one half of a tabard. There are remnants of heavy strings, as can be seen in Figure 37 below, at the two remaining outer corners most likely intended to tie the corners together, suggestive of a tabard form rather than a tunic.



Figure 37: Corner tie on half tabard MPM catalog #A52272 (Photo by Diane Newbury)

When viewing the entire artifact and studying the direction of the feather strings, the observer can discern what appears to be a long, narrow, lengthwise half segment of a tabard (Figure 38). This half segment can be visually divided into two approximately equal sections, with “mirrored” featherworked areas, wherein the feather strings on each half point away from the unfeathered midpoint. Typical of tunics and tabards viewed in other collections this unfeathered section may be the shoulder region of the original garment.



Figure 38: Half tabard MPM catalog #A52272 (Photo by Diane Newbury)

Given that feather strings on clothing were attached so that they hung in layers with the feather tips pointing down, it is most likely that this artifact is one half of a tabard that would have lain over the shoulders lengthwise. In order to better visualize how the complete tabard might have appeared and how it might have been worn, I created a simplistic, but full-sized painted version of this item (see Figure 39). All dimensions are accurate to within 1 centimeter.



Figure 39: Painted mockup of tabard catalog #A52272

(Mockup and photo by Diane Newbury)

Stone-Miller (2002a:238) notes that the stepped-fret pattern, such as appears in blues and oranges at the neckline of MPM catalog #A52272, is considered to be a “long-standing, high-status” design appearing artistically throughout the Americas.

Analysis and Summary: The condition of this artifact is generally good, with some areas of staining and possible rot, dirt and sand are adhered to areas of the cloth, all likely due to burial conditions. A clump of unidentified animal fur was found clinging to the underside of the textile and remains with the artifact in storage. Any of these might prove useful for future tests and identification.

The raw materials in the textile are all cotton. There is no evidence of any other fibers used in the production of the tabard beyond the feathers themselves. Being all cotton suggests a coastal origin. The textile is a warp-faced weave with single warp yarns that are Z-spun, 2-ply-S. It appears to be either a 1X1 weave with thicker weft yarns or a 1X2 or 1X3 weave with areas of two or three weft yarns per warp yarn. Unfortunately the weft is so well covered by the warp yarns that it is difficult to confirm spin and ply for

the weft. The feather strings are neatly attached in the common two-thread construction, with a third thread for attachment. Remnants of uncut selvages are found on all four edges, although one edge is folded and stitched down. The warp is oriented so that it would have run vertically when worn. This would have been a garment constructed of two complete woven panels or webs likely using a backstrap loom due to the narrow width of the remaining portion, fitting some traits affiliated with the North and Central coastal cultures. The completed garment would have hung below the waist and above the knees when worn (see Figure 39). Thread count is not notably high being 11 warp yarns to 12-18 weft yarns. These are all coastal traits and do not fit Wari, Tiwanaku, or Inca indicators, suggesting an origin predating those cultures. The overall pattern is that of a sunburst or large colorful oval, which is associated with male regalia from the Lower Ica Valley. The tabard form is considered to be common to a number of cultures, including Chancay, Chimú, Ica (?) or Ica/Chincha, Nasca, Wari, and pre-conquest “provincial” Inca. Generally, the preceding analyses confirm a coastal origin, with potential temporal placement prior to Wari expansion, but after Paracas.

One consideration for narrowing the potential provenience is to look at the radiocarbon dating of two similar objects in other collections (see Table 8). The first dated textile is very close in appearance to MPM catalog #A52272, is described as a tunic (although close examination of the original photo suggests a tabard form), and is dated to AD1043-AD1276 placing it during the Wari expansion in the Nasca region. Reid (2005:Plate 78) labels it as simply Nasca, although he gives no reasoning for that assessment. A second tabard, while different in terms of colors and the treatment of what is assumed to be the

back of the garment, has a very similar sunburst oval design. It is dated later than the other tabard, putting it into the Chincha Ica time frame.

Table 8: Examples of Radiocarbon Dated Tunics

Image	Description	C14 Dating	Source
	Tunic	C14-AMS age (y BP)	Reid 2005:Plate 78
	Nasca, south coast	865+/-50	
	Natural cotton with applied feathers	2 sigma (95% conf.) 1043-1276	Private collection, New York
 	Tabard with yellow yoke	1276-1390 (95% probability)	H. King:2012b Plate 18
	south coast, Ica(?) 35 x 29 7/8 in (89 x 76cm) Feathers on cotton		Cat #29.146.25 Metropolitan Museum of Art, New York

The general analyses of this textile are not conclusive, but do tend to confirm the South Coast origin of the object with potential dates being no earlier than the Middle Horizon and possibly into the Late Intermediate Period or later.

Tabard "Puzzle" (MPM Catalog #A52296a-k)

MPM catalog numbers #A52296a through #A52296k are eleven feathered textile sections identified in the records as being portions of a single garment. The sections show clear

evidence of having been cut apart, with some of the cut edges easily matched together much as one would a jigsaw puzzle. These segments are part of what I suggest was a tabard, as there is no evidence that the finished selvage edges were sewn together and there is a remaining heavy string at one corner on artifact #A52296E that appears to be the remnant of a tie closure (Figure 40).



Figure 40: Tabard section showing corner tie MPM Catalog #A52296e (Photo by Diane Newbury)

Although a previous researcher had described these segments in the MPM database as being parts of a “Full feather poncho, center section missing” my analysis and efforts to reconstruct the garment (see Figure 41 and Figure 42) suggest that the center section may not be missing. Attempting to better estimate the original dimensions of the tabard was important in that the size of a finished garment is thought to be a potential indicator for culture or origin. To that end, I looked closely at both obverse and reverse sides of each textile segment, attempting to match cut edges, feather band colors, and stain patterns to

determine a better alignment of the original garment. Figure 43 presents my effort to reconstruct the possible original tabard appearance, although this image is not to scale.



Figure 41: Possible tabard arrangement MPM Catalog #A52296a-k (Photo by Diane Newbury)



Figure 42: One half of possible tabard arrangement MPM Catalog #A5A2296a-k (Photo by Diane Newbury)

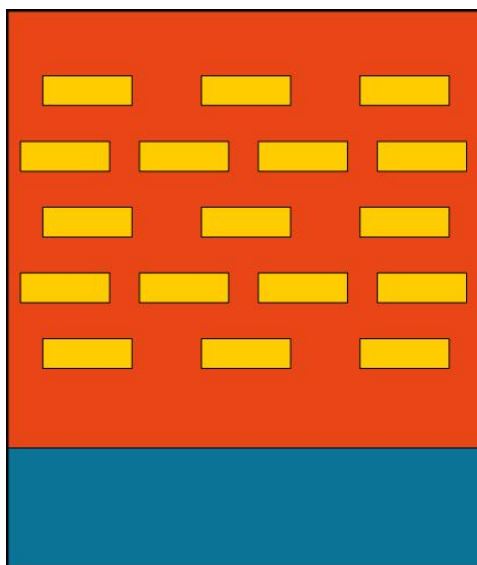


**Figure 43: Sketch, not to scale, of possible tabard appearance MPM Catalog #A5A2296a-k
(Drawing by Diane Newbury)**

I was unable to find close matches for the interior or central cut edges, leaving some doubt as to whether this tabard was originally one complete woven textile (i.e., one web) or two stitched together down the center line. Determining that could be another clue as to potential provenience as was listed in Table 5.

Analysis and Summary: The raw materials in the textile are cotton. There is no evidence of any other fibers used in the production of the tabard beyond the feathers themselves. Being all cotton strengthens the likelihood of a coastal origin. The cotton yarns for both warp and weft are generally Z-spun, 2-ply-S in a woven structure that is a balanced 1X1 weave. The spin and ply directions suggest a potential Central or South Coast provenience or influence, while the balanced weave is not unique to any area. The completion of the weave and stitching of the feather strings are very neat, with the fairly standard two-yarn feather string assemblage with a third thread as attachment. Remnants of all four uncut selvages are present, with the warp oriented so that it would have run vertically when worn. The completed garment most likely would have hung below the

waist when worn, but not likely to the ankles. Thread count is not particularly high being 12 warp yarns to 6 weft yarns. Again, these are all generally coastal traits and do not tend to fit Wari, Tiwanaku, or Inca traits, suggesting perhaps a coastal origin dating before the Wari/Tiwanaku expansions. The overall pattern being very geometric or non-figurative with large blocks of color may suggest either coastal Nasca or Ica. The tabard form is considered to be common to a number of cultures, including Chancay, Chimú, Ica (?) or Ica/Chincha, Nasca, Wari, pre-conquest “provincial” Inca. Given the other traits identified in this tabard, likely provenience attributions are a South Coastal culture such as pre-Wari Nasca or perhaps Ica/Chincha.

Colorful tabards and tunics are the objects most commonly published with radiocarbon test results. Although none of the radiocarbon-dated artifacts listed in Appendix D are a particularly close match, the various bright, colorful tabards with the more geometric designs seem to date anywhere from 7th century AD (Nasca) through to the 10th and 12th centuries AD (Nasca with Wari expansion and perhaps into the Ica/Chincha).

Miniature Textiles or Coca Bags?

Two forms of smaller featherworked textiles that are found in museum collections, miniature textiles and coca bags, may look quite similar to each other. The differences in appearance may be resolved by understanding more about the function of each.

Miniature textiles have a long history in the Andes; according to Bruce (1986:191) miniature burial or cached offerings date at least to the Paracas culture (ca. 6th-1st centuries B.C.) and possibly earlier. Miniature textiles include a variety of forms such as miniature garments (i.e., tunics, dresses, and loincloths), rectangular and square cloths,

headgear, bags and even a pillow found archaeologically at Pacatnamu on the north coast by Christopher Donnan (Bruce 1986:183-204). While none of these objects were featherworked, nonetheless the form is of value to this project, as is the fact that radiocarbon dating placed these artifacts in the Late Intermediate Period (ca. 1320 AD +/- 70). Other miniature garments, a number that were featherworked artifacts, were found archaeologically with miniature figurines such as in the Inca child sacrifice graves found on Cerro Copiapó in Chile, above 16,000 feet. The photo in Figure 44 shows a complete figurine with miniature clothing and featherwork headdress (Reinhard 1992:89).



Figure 44: Miniature offering from peak of Mount Copiapo (Reinhard 1992:89)

Miniature textiles that I observed in museum collections were often either miniature tunics (male imagery such as the sunburst/oval design) or miniature female dresses (female imagery such as checkerboard designs).

Coca bags also have a long history in the Andes as does the chewing of coca (Plowman 1985:15). Benson describes coca bags as “...usually small, and have a rounded bottom and some pattern indicating weaving (these patterns are often seen also on the garments of coca-chewers); the bags frequently have fringe on the bottom (Benson 1984:369).”

Distinguishing between the two forms in collections may be something as simple as how the feathers would have hung to determine top edge from bottom edge. Most featherworked textiles are meant to be used with the feathers attached at the bent shaft with the feather body pointing or hanging downwards usually in a shingled effect.

Textiles intended as a *chuspa* or small bag would by necessity have to be open at the top to function as a bag, thus indicated by the feathers hanging downwards against the fabric. Miniature textiles being primarily symbolic in nature could have an opening on any of the edges.

For example, the small textile (Figure 45) at the Metropolitan Museum of Art (MMA) fits the requirements for a small bag such as a coca bag. There is an opening at the top, including a drawstring style closure and handle, with the feathers shingled over the surface in a downward facing direction.



Figure 45: Coca bag, Inca, MMA #1994.35.101 (H. King 2012b:Figure 57)

All of the small textiles in the MPM collection, even those labeled as being coca bags, are most likely miniature tunics or dresses intended for ceremonial and/or mortuary purposes and not as *chuspas* or coca bags. My reasoning is based primarily on structural and iconographic aspects of the artifacts as follows. None of the smaller textiles are open at the top based on feather string application. Most of them are woven in a manner with the yarns quite open and loose making it less likely that they could have contained anything. Nonetheless, when comparing them to other collections and the few literary references, some information may still be gleaned. Additional testing for residue such as coca or other material, if evidence of such is present in bag shapes, might also provide further data. None of the MPM smaller featherworked textiles showed any residue or additional inclusions.

Miniature Textile/Tunic (MPM Catalog #A55000)

MPM Catalog #A55000 (Figure 46) is a miniature textile in very good condition, with little or no staining or discoloration. It is composed of a very loose weave cotton yarn, with attached feathers on one side showing the oval or sunburst design in blues and multi-colored feathers. There is a single blue feather stitched in the middle of the top edge which may have been intended to symbolize the neck opening. The reverse side is composed of multi-colored feathers of oranges, blues, and greens without specific pattern. This more random appearance or use of multi-colored feathers appears to be common on many similar artifacts I observed in the various collections. The textile is folded at the center line and also folded and loosely stitched along most edges. The bottom is open and unstitched.



Figure 46: Miniature textile showing front and back MPM Catalog #A55000 (Photo by Diane Newbury)

Analysis and Summary: The raw materials in the textile are cotton. There is no evidence of any other fibers used in the production of the textile beyond the feathers themselves. Being all cotton strengthens the likelihood of a coastal origin. The textile is composed of a balanced 1x1 weave with Z-spun, 2-ply-S yarns for both warp and weft. The yarn count is quite low at 6 by 6 per centimeter. It was not clear which direction was warp or

weft due to most edges being stitched down. The stitched edges appear to have been very simply whip-stitched together. Given the overall loose nature of the weaving, it suggests an object not intended for any significant amount of use. Most likely this was intended primarily for mortuary purposes. The feather strings are the common two-yarn structure with one yarn attachment.

At least one scholar (Conklin et al 1996:419) has stated that miniature textiles are more commonly found on the South Coast. Since a greater abundance of textile material is found there this may not be as significant as suggested. The imagery of the oval sunburst is associated with male clothing styles from the Lower Ica Valley, Middle or Late Horizon which, as previously noted, encompasses a large time frame and multiple cultures.

Overall, I cannot draw as many conclusions about the potential provenience for this miniature textile as was possible with the larger tunics and tabards. There is simply less literature focused on the featherworked miniature textiles. One potential insight may be drawn from radiocarbon dating of similar artifacts in other collections. Three radiocarbon dated featherworked miniature textiles appear in the literature (Table 9), with all three being associated with the Ica or Chincha Ica dating between the 12th and 13th centuries.

Table 9: Examples of Radiocarbon Dated Miniature Textiles

Image	Description	C14 Dating	Source
	Miniature tunic, female Chincha Ica, South Coast Natural cotton with applied feathers	C14-AMS age (y BP) 743+/-35 2 sigma (95% conf.) 1222-1298	Reid 2005:Plate 119 Private collection, Chicago
	Miniature dress, female design Ica, South Coast 9 ½ x 8 ½ in (24 x 21.5 cm) Feathers on cotton	1154-1273 (95% probability)	H. King:2012b Plate 54 Cat #1979.206.639 Metropolitan Museum of Art, New York
	Miniature Feather Tunic Ica-Chincha?, Late Intermediate Period 33.97 cm x 35 cm x 4.45 cm (13 3/8 in. x 13 3/4 in. x 1 3/4 in.) feathers, cotton	1160-1260 CE (Confidence level not provided)	Dumbarton Oaks database Cat #PC.B.523 Dumbarton Oaks, Washington, DC

Overview of Miniature Textiles in the MPM Collection

There are a total of seven artifacts in the study collection that I would define as miniature textiles. These include Catalog #A52281, A52285, A52291, A52294a, A52294b, A55000, and A55004. All are composed of loosely woven cotton yarns; some of which appear to be simple un-plied (also called single plied) yarns which is generally not

common for full-sized garments or other textiles meant for functional purposes. Three are on display in exhibit cases, the rest are in storage. All appear to have been somewhat simply made, with loose weaving and generally loose and open whip stitches holding edges together. Many have the oval sunburst pattern on one side or half and, as noted for Catalog #A55000 above, usually have the multi-colored feathered reverse, which may reflect a standard for male tunics. Many of the miniature textiles that have the oval sunburst design also have at least one or two feathers stitched at the top center suggestive of a symbolic neckline. Some of these small textiles are folded and stitched (see Figure 47) while others are not folded and do not appear to have ever been stitched (see Figure 48). Note that the miniature textile in Figure 48 shows a tighter, less open structure to the woven cloth and the feather strings and design created also appear to be more elaborate than that seen in the construction of either example in Figure 46 or Figure 47. This variation in manufacture may reflect a qualitative aspect or purpose, but may also simply be due to differing talents or techniques of the original weavers/featherworkers.



Figure 47: Folded and stitched miniature textile, image showing front and back MPM Catalog #A52294B (Photo by Diane Newbury)



Figure 48: Miniature textile, not folded
MPM Catalog #A52284 (Photo by Diane Newbury)

Two scholars have drawn inferences related to the quality of such miniature offerings. Bruce (1986:192) suggested that more simplistically constructed artifacts, that appear to have been made with less time or effort, may have been provided by less affluent families as substitutes for full-size garments. Stone-Miller (1992:159) also noted that there may have been a connection between the quality of the deceased's own clothing and the quality of the burial artifacts. Future research with these miniature tunics and dresses may result in more insights into possible connections.

Chapter Summary

I reviewed 49 individual featherworked textile artifacts in the MPM collection. Of this number, five (catalog #A52295a-e) were reassembled as one textile and on display in the Museum preventing close examination, eleven (catalog #A52296a-k) are sections of what was originally one tabard, and two (catalog #A56325a and b) appear to have originally been sections of a single tabard. Therefore, for purposes of describing, analyzing, and

summarizing originally unique textiles, those three fragment/section groups were counted as one textile each, resulting in 31 originally separate or single woven fabrics for analysis.

I described and discussed two garment-sized tabards and eight smaller textiles in the collection variously labeled coca bag or miniature textile. The two tabards were incomplete, one (catalog #A52272) being one half of a completed garment, and the other being composed of eleven sections (catalog #A52296a-k) that had been cut or torn apart. Both were reconstructed in a basic manner to estimate original dimensions and designs. Traits recorded for each were summarized and compared to the provenience indicators listed in Chapter 4.

There are a total of seven artifacts in the study collection that are miniature textiles. These include Catalog #A52281, A52285, A52291, A52294a, A52294b, A55000, and A55004. Three (#A52294a, A52294b, and A55004) were originally labeled as coca bags, which based on structural analysis is incorrect. They are all miniature textiles.

The preponderance of evidence suggests that most of the MPM featherworked textiles are very likely coastal in origin, with characteristics appropriate to the South Coast, but before Inca influence. Thus post-Paracas groups such as Nasca and Ica/Chincha are likely cultures of origin. Indications are that there is very little Wari influence, but radiocarbon dates on similar artifacts at other museums would suggest a post-Wari time frame is possible. This may mean a South Coastal provenience of Ica/Chincha is probable for some of the featherworked textiles in the MPM collection. It is hoped that additional traits and potential provenience indicators drawn from further textile studies of

provenienced or accepted-provenience artifacts may eventually provide greater insights into these types of artifacts.

CHAPTER 6: FEATHERWORKED NON-TEXTILE DECORATIVE DEVICES – RESULTS

During my research, I found that smaller featherworked artifacts are generally quite common in most museum featherwork collections and that they may be constructed in a variety of styles, using diverse materials and techniques. Of the 134 feathered objects documented in this study, 72 were categorized as non-textile decorative devices. Each of these is described individually in Appendix B. In this chapter I will highlight approximately 15 of these, along with related objects from other museum collections. My selection was based on two differing criteria: first, those items that were available in quantity and were clearly related structurally; second, those items for which there was one or more notable characteristics that might suggest either a cultural or functional purpose. Based on differences in construction technique and materials I have chosen to group the non-textile decorative devices into two primary sub-categories. These sub-categories are fan-shaped and stick-based such as pins and plumes. For the fan-shaped featherworked artifacts, I describe aspects of their construction that appear to be standard across most collections. For the pins and plumes I focus in particular on a group of wooden pins composed of feathers with strips of mammalian skin and fur. Finally, at the end of this chapter, I highlight a select few artifacts that do not fit into the two larger categories, but that provided unique and interesting structures.

Fan-Shaped Feathered Artifacts

The MPM collection includes 51 artifacts that are either fan-shaped or appear to be a portion of a fan-shaped feathered piece. The fan-shaped feathered items in the MPM

collection and other museum collections are some of the most common featherworked artifacts in modern collections. This may be due to preferential collecting by the *huaqueros*, and thus perhaps the preferences of collectors who purchased the objects, who were the source for many of the early collections. Therefore I cannot draw conclusions about original cultural frequency based only on the occurrence of these items in collections. As previously noted, there has been little published research regarding these particular types of featherworked artifacts.

In analyzing the fan-shaped forms, I sought to compare them to other similar fan forms, particularly those from archaeologically provenienced sources. As discussed in Chapter 2, Paracas fans are not only unique structurally, but are currently some of the only fan-shaped feathered artifacts with archaeological provenience. See Figure 49 below for a small review of the fan-shaped feathered artifacts in the MPM collection.



Figure 49: Examples of fan-shaped objects in MPM collection (Photo by Diane Newbury)

Paracas Fans?

Comparing the fan-shaped objects in the MPM collection to the known Paracas fans allowed me to determine if any of the MPM artifacts were Paracas in origin. Among the feathered artifacts that I viewed at the American Museum of Natural History was artifact catalog #41.2/6015, labeled as a Paracas fan (see Figure 52), which closely resembles the sketches (Figure 50 and Figure 51 below) shared by Yacovleff (1933:Figures 6 and 7) of the structure of the excavated Paracas fans. As discussed in Chapter 4, iconography and contextual placement in the *fardos* suggests that the Paracas fan-shaped objects may have been handheld rather than worn on the head. Note the manner in which the feathers are inserted into the woven base (see Figure 53). None of the featherworked artifacts in the MPM featherwork collection are constructed in this manner, nor do any of them appear to be made from a similar reed-like material. I am convinced that none of the fan-shaped featherworked pieces in the MPM collection are Paracas in origin.



Figure 50: Paracas fan (Yacovleff 1933:Figure 6a)

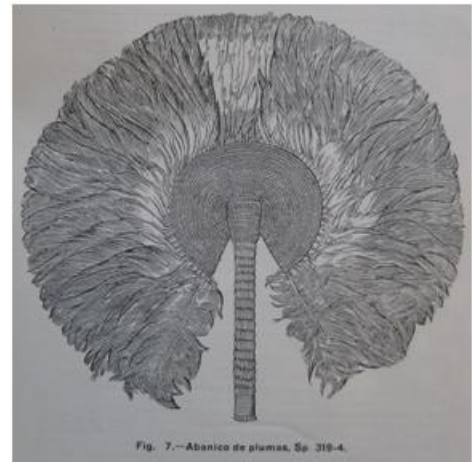


Figure 51: Paracas fan (Yacovleff 1933:Figure 7)



Figure 52: Paracas fan AMNH Catalog #41.2/6015 (Photo by Diane Newbury)



Figure 53: Close up Paracas fan AMNH Catalog #41.2/6015 (Photo by Diane Newbury)

Fan Shape Function

Overall, I am convinced that the various fan-shaped featherworked objects in the MPM collection were likely intended as headdress components, although any of them could have been handheld. They are constructed so as to have a tapered base or “handle” that is often somewhat flattened, which could more readily be held against the head with a variety of headdress structures such as textile bands, turbans, or woven and folded hat-type structures. The imagery referenced in Chapter 4 is generally consistent with this possibility.

One intact example of a folded basketry-style woven hat holding a small fan-like feathered piece, termed a *penacho* (see Figure 54 and Figure 55 below), is on exhibit at the *Museo Huaca Malena* in Peru (Pozzi-Escot 2011:108; H. King 2012b:Figure 16). The museum houses a collection drawn from the nearby *Huaca Malena* which is “located 100 kilometers south of Lima...(and is) typical of archaeological sites along the south-central coast of Peru in that it has been extensively looted for its fine Wari textiles. (Angeles

Falcon and Pozzi-Escot 2005:7).” Additional text suggests the cemetery may have been used later by the Inca.



Figure 54: Woven vegetal hat with *penacho* braided feather artifact, Museo Huaca Malena Catalog #1-120B (Pozzi-Escot 2011:108)



Figure 55: Close-up view of *penacho* braided feather artifact, Museo Huaca Malena Catalog#1-120B (Photo provided courtesy of Camille Myers Breeze)

According to Camille Myers Breeze of the Museum Textile Services (personal communication, 2013), who assisted in the conservation of this artifact, the small braided fan shape and the woven hat were found together in this manner at the *Huaca Malena* cemetery. This is an example of one possible manner in which the feathered fan-shape artifacts may have been used. The affiliation with Wari and possibly Inca is also informative.

Close examination of the artifacts that are fan-shaped shows that some were constructed so as to be fairly stiff and could easily have stood upright with minimal support. One possibility for the more rigid fan-shaped headdress pieces can be seen in the next image (see Figure 56) of a helmet with two feather bunches or plumes on each side and one distinct braided fan-shaped element in the center, all of which would have framed the wearer's face. Described by James W. Reid (2005:Plate124) as being “Nazca, south

coast, circa 100-800 AD” the helmet is thought to be constructed of reed and hemp. Reid suggests it may have been worn by a warrior, although this interpretation is open to debate as there have been no other similar objects found in my research. Unfortunately, this artifact is held in a private collection (Reid 2005:324-325, 379) and no other contextual or structural information is available. This example is offered here only as one possible manner in which fan-shaped featherworked artifacts may have been used.



Figure 56: Reed and hemp helmet with attached plumes and fan-shaped element (Reid 2005:Plate124)

Construction of Fan-Shaped Artifacts

Close study of the fan-shaped pieces and related items in four museum collections (MPM, AMNH, Brooklyn, and MAM) have allowed me to reconstruct what I am convinced was one of the standard processes for creating most of these artifacts. Some of the artifacts appear to be stages of this construction process, and in this section I will

present both the overall process as well as examples from the various collections that are good representations of each step.

The construction appears to have begun with a feather or sometimes two, bending the shaft of the feather around a loop of the chosen bast or plant fiber. This vegetal material was looped or twisted (see Figure 57) around the bent feather shaft to hold it in place and then the fiber strands were braided in a standard three-strand plait using a fairly tight braiding technique.

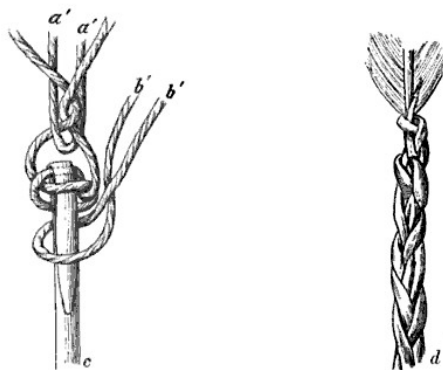


Fig. 1. Ordinary Methods of attaching Single Feathers.

Figure 57: Diagram of single feather braid construction (Mead 1907:Figure 1)

The overall length of each feather braid and how much of the plant fiber was braided versus how much was left unbraided varies between feather braids. The majority of the fan-shaped artifacts were constructed of feather braid attachments that were plaited at least half of the finished length. On a few artifacts the feather attachments were not braided, but made by tightly twisting the vegetal fiber, although this seemed to be less frequent among the artifacts I studied. It may be that the choice to twist rather than braid the attachment material is based on the material itself. Some vegetal fiber used to construct the artifacts seems to hold its shape more successfully than others and the use of the twist method would have necessitated a material that would maintain that twist

upon release. It may also be that the twisted form was used to construct objects not intended to be used or worn for any length of time, such as funeral offerings.

Just as it is postulated that featherworkers created a supply of feather strings in advance of using them to decorate textiles, I suggest that featherworkers also created batches of feather braids preparatory to creating the headdresses and decorative objects that incorporated such braids. In three of the collections reviewed, I saw examples of what appear to be bundles of prepared feather braids. Generally, these bundles are a group of feather braids with similar feather colors, tied together with a simple cotton yarn, and little or no further embellishment. Three examples are shown below, one each from the Milwaukee Public Museum (Figure 58), the Metropolitan Museum of Art (Figure 59), and the Brooklyn Museum (Figure 60). The MMA example, while still quite simple, was the most elaborate in construction. After the feather braids were grouped together with a cotton yarn, all of the ends were plaited together in one big braid.



Figure 58: Feather braids bundle MPM Catalog #A52211 (Photo by Diane Newbury)



Figure 59: Feather braids bundle Metropolitan Museum of Art Catalog#1978.412.51 (Photo by Diane Newbury)



Figure 60: Feather braids bundle Brooklyn Museum Catalog# 1995/47.84 (Photo by Diane Newbury)

These may have been small last-minute offerings or perhaps, much as weaving baskets have been found intact in what is presumed to be a weaver's grave (Brinckerhoff 2000:5), these types of bundles may also have been associated with a featherworker's burial. A group of artifacts labeled as a Chilean Inca "featherworking kit" lends credence to the possibility. Figure 61 shows a photograph of this artifact group including needles, yarns or threads, and bundles of feathers as they were displayed at the Bruce Museum of Arts in October 1999 (Brinckerhoff 2000:36).



Figure 61: Feathermaking kit (Brinckerhoff 2000:36)

Once a sufficient number of feather braids were completed and ready for use, the next step could begin. Many, although not all, of the fan-shapes appear to have been constructed by initially stitching the feather braids together lying next to each other with what may best be described as a “basting” yarn. Often sewn through the braids in such a manner as to be somewhat hidden in the finished product, this yarn appears to have been intended to ensure that the feather braids remained in the desired position throughout the remainder of construction. Examples below show two MPM (Figure 62 and Figure 63) and one Brooklyn Museum (Figure 64) fan-shapes in progress with just the basting yarn in place. Again, it would seem that these particular examples went into the burial context in an unfinished condition, although for what purpose can only be hypothesized. Nonetheless, these allow us to see examples of an early phase of construction.



Figure 62: Fan shape in progress with basting yarn
MPM Catalog #A52265 (Photo by Diane Newbury)



Figure 63: Fan shape in progress with basting yarn
MPM Catalog #A52212 (Photo by Diane Newbury)



Figure 64: Fan shape in progress with basting yarn Brooklyn Museum Catalog#1995/4786 (Photo by Diane Newbury)

Once the single layer of feather braids had been basted together side by side, additional basted layers were often stacked one on top of the other. Most of the completed fan-shapes that I viewed were composed of at least two layers in this manner, some having as many as four layers.

A few of the fan-shapes include an additional step wherein a slender thread was used to stitch or tie the feathers together by looping a thread around the mid-point of the feather shaft. Figure 65 and Figure 66 illustrate this technique. The feather thread was slender and tightly constructed, and the stitching was completed so that only a minimal amount of thread would be visible to the observer against the feathers. I found this technique on a number of completed fan shape examples in museum displays and catalogs. It appeared often where the feathers were to be used or worn in an upright and vertical position. This suggests that when feathers are stitched together in this manner the featherworker intended for them to remain in a fixed and possibly upright position during use.



Figure 65: Close up of sewn feathers
MPM Catalog #A52227 (Photo by Diane Newbury)



Figure 66: Close up of sewn feathers
AMNH Catalog #41.0/1316 (Photo by Diane Newbury)

The next step in construction of the fan shapes I observed was the addition of a series of laid and couched yarns used to connect all of the layers of the basted and stacked feather braids. Laid and couched stitches are a combination of yarns first laid down in long stitches across a base material and tied down to the base material with a series of short stitches (Emery 1980:247). For purposes of discussion, I refer to this combination of yarns simply as couching stitches. Based on the positioning of some yarns either over or under other yarns, suggesting the order of application, it appears that most couching stitches were begun near the upper portion of the braided section of the fan shape, either next to or on top of the basting yarn and progressed through to the bottom tip. Generally these couching stitches were somewhat evenly spaced and may or may not be of the same yarn throughout. Multiple examples of the couching beginning with one yarn and being finished with another were observed. Yarns could be of differing colors, spins, plies, and occasionally differing materials (i.e., cotton versus camelid). See the example (Figure 67) from the MPM collection showing two differing yarns composing the couching stitches. This may suggest that for the intended purpose the appearance of the couching yarns was less important, if for example, the base of the fan shape was not intended to be seen.

Many of the non-feathered bases of the fan shapes in this study were finished with an end string or yarn (Figure 68). This was consistent enough to suggest a purpose, possibly in order to attach the fan shapes to another item. Again, this end string or yarn was composed of a wide variety of spins, plies, colors, and materials. Also, a number of the fan shapes had a shortened end string that may have been cut at some time in the past. Whether this was done pre- or post-burial cannot be determined.



Figure 67: Couching stitches of differing yarns
MPM Catalog #A52257 (Photo by Diane Newbury)



Figure 68: End string or yarn
MPM Catalog #A52263 (Photo by Diane Newbury)

Two aspects of the fan shape construction were notably consistent. First, regardless of the length of the feathers used or the lengths of the feather braids, the upper edge of the completed fan shape was generally aligned in a fairly smooth arc. The frequency with which I noted this general uniformity across the various fan-shaped artifacts suggests this may have been a desired outcome. Secondly, there seemed to be a consistency in the relationship between width and height of each finished item, wherein these two dimensions were often quite close. Of the 46 complete or nearly complete fan-shaped artifacts the height was on average 25.75 cm versus an average width of 23.25 cm, yielding a finished product that was balanced in appearance. Additional research with

larger samples and more securely provenienced items could test these ideas about the goals of the featherworkers.

Fragmented or Incomplete Fan Shapes

Two of the featherworked fan-shapes in the MPM collection (catalog #A52232 and A52233) appear to have been cut from one complete fan. Both are essentially constructed in the manner detailed above, but appear to have been cut or partially disassembled at some time in the past. Figure 69 below shows both objects separately and aligned with each other to demonstrate a possible original structure. While it is not possible to determine when the apparent fragmentation occurred there is enough similarity to the post-retrieval cutting of textiles to suggest a parallel with these fan-shaped examples.



Figure 69: MPM catalog #A52232 and A52233 separate and possible reconstruction (Photo by Diane Newbury)

Stick-Based: Pins and Plumes

Feathered decorative objects composed of or attached to wooden rods, sticks, or even small branches appear in various collections and at least a select few scholarly articles. Terms covering these types of artifacts vary between authors, although “pins” and “plumes” appear more frequently in museum catalog and exhibition labeling. For this thesis, I will generally use the terms pin or stick-based, using plume only where a given

source used that term. The MPM collection includes 14 artifacts that include a wooden stick in the construction.

Generally, these decorative artifacts are the smaller wooden sticks, averaging around 36-38 cm in length, rather than longer items that might be considered staffs. What follows are descriptions of a few of these items, with special attention to their construction and the materials used. These may in turn provide clues as to their original cultural provenience and function.

Feather-and-Fur Pins (MPM Catalog #A52195-A52196, A52202-A52205, A52217-A52218)

These are unique feather-and-fur decorative objects. Eight artifacts in the MPM Andean featherwork collection are composed of 3-5 rings or rows of feather braids attached to a short, slender wooden stick by means of wrapped cotton yarns, strips of furred animal skin, or both. See Figure 70 for two of these artifacts. The sticks, when whole, measure around 40 centimeters. When the tips or ends of the sticks are present, they are usually worked or finished by being polished, carved, or flattened. Figure 71 shows an example of a smoothed tip. The hide with fur attached was cut in thin strips, approximately 0.5 centimeters in width, although the width may have changed over time as the tissue dehydrated. The individual hairs of the fur are between 9 to 13 centimeters in length, predominantly dark brown to almost black with some grizzled white shafts, and the overall consistency is pliable but not limp.



Figure 70: Two feather-and-fur artifacts MPM Catalog #A52202-A52203



Figure 71: Close up of worked tip on wooden stick MPM Catalog #A52203

(Photos by Diane Newbury)

There seems to be a pattern to the choices of feather color, as each ring/row is composed of a single color group (green, yellow, or orange). This may suggest iconic significance to the colors or source animals and their combination, or a closely shared knowledge of craft linked to particular crafters or regions. At least two of the MPM sticks are almost identical in overall length and color choice sequences, suggesting they may have been intended as part of a set or matched pair. The sticks are broken on most of these artifacts, often underlying the intact yarn and fur wrapping. This may suggest intentional breakage of symbolic significance at the end of the use-life of the artifact. One interpretation of such breaks might indicate that the act of breaking the stick was some form of ritual artifact “killing” associated with burial.

The skin and fur strips have never been identified. Although there are artifacts that are clearly composed of animal skin or sinew, fur, and feathers on a wooden stick (Peters

2000:245), I have found no references to fur similar to that which is on these specific objects. Comparing the different artifacts, the fur appears to be from the same type of animal on all of the pieces. Most of the fur is a deep brown interspersed with creamy yellow-white grizzled strands and ranges in length from 9 to 13 centimeters. Figure 72 shows a closer view of the fur. A few of the objects include tufts of similarly structured fur that is only creamy yellow-white.

In the next sections of this thesis, I explain the research efforts I used and the results of those efforts to try to identify or at least narrow the range of possibilities for the species source of this fur.



Figure 72: Close up of feather-and-fur artifact MPM Catalog #A52203 (Photo: Diane Newbury)

Feather-and-Fur Pins in Other Collections

At least two other museums have similar artifacts in their collections, also constructed with what appears to be the same mammalian fur. The American Museum of Natural History (AMNH) in New York houses six similar artifacts (see one example below in Figure 73), which I was able to study in person. The construction, stick width and length,

fur strips and description, and feather braid rings are all very much the same as those found in the MPM collection. The similarities are striking enough as to suggest either a shared regionality or some widespread shared iconographic choices, or even the potential of shared origins.



Figure 73: Feather-and-fur artifact at AMNH Catalog #4101333 (Photo by Diane Newbury)

One additional feathered Peruvian artifact at the *Staatliche Museen zu Berlin* (H. King 2012b:Figure 47) in Germany appears to have a large tuft of fur (see Figure 74) that is potentially the same animal, although a photograph can be misleading. The overall construction of this object does not appear to match the construction as seen at both MPM and AMNH, and is included only to highlight the potentially widespread existence of the usage of fur in combination with feathers and to call attention to the potential value of identifying the source of the fur.



Figure 74: Feather “plume” at the Staatliche Museen zu Berlin in Germany (H. King 2012b:177)

Research Methods Specific to the Feather-and-Fur Pins

Multiple approaches were used in the effort to identify the mammalian fur used on these artifacts. Fur samples were taken from three of the feather-and-fur sticks or pins (catalog #A52172, A52203, A52204, and A52218) with the permission of the MPM Anthropology Curator, Dawn Scher Thomae. No samples were obtained from any other collections.

Gross morphology: I studied the gross morphology of the skin/hide and fur/hair under reflective binocular microscopes (25X-100X). Comparisons to fur and skin identification publications, both in print and online, were attempted. Skin or hide studies often include the appearance of the skin surface as well as the appearance of the basal region of the hair at the skin surface. Fur or hair references proved more informative with a focus on the internal hair structures and external surface of individual strands of hair. A few researchers have attempted to define and document methods for mammalian hair analysis (Hausman 1920; Brown 1942), with recent publications in the field of forensic

criminology (Petraco and Kubik 2004). Key elements of hair analysis are the main structures of the hair, which include the cuticle, cortex, and medulla. Figure 75 illustrates the key parts of a hair with definitions and imagery from an online article published by the FBI related to forensic criminology (Deedrich and Koch 2004).

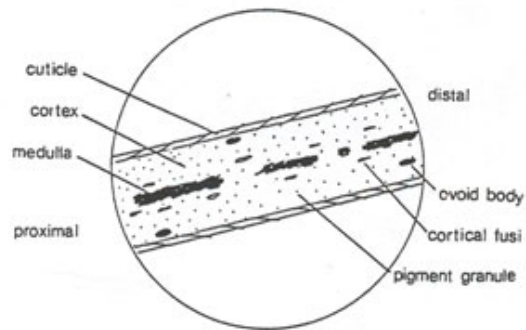


Figure 75: Basic structure of hair (Deedrich and Koch 2004)

The following definitions (Table 10) are associated with Figure 75. Note that the artifact fur was identified as likely being guard hairs (Wendy Christensen, personal communication 2013).

Table 10: Definitions of Basic Structure of Hair (Deedrich and Koch 2004)

Hair Structure	Definition
Cortex	Middle portion of hair extending from the cuticle to the medulla and containing the pigment granules, cortical fusi, and ovoid bodies.
Cuticle	Translucent outer layer of the hair shaft consisting of overlapping scales.
Guard hairs	Coarse hairs that provide protection and are usually longer than fur hairs.
Medulla	Central portion of hair, the core area.
Ovoid bodies	Dark bodies of unknown origin that are a useful discriminatory characteristic in their pattern of appearance.
Pigment granules	Melanin granules whose size, shape, density, and distribution vary.

Hair Structure	Definition
Scales	Outermost portion of the cuticle, flattened and imbricate in humans, pointing toward the distal end of the hair shaft.

Online resources such as Furskin (Galatik et al 2006) a “microscopic fur atlas” based in Czechoslovakia covering European mammals and the Alaska Fur ID Project (Carrlee 2009), covering mammals most frequently used in Alaskan Native people’s artifacts were helpful but focused only on mammals not found in Pre-Columbian Peru. Also, several of these resources are not intended for use with archaeological materials, instead showing skin samples that are generally more recent, hence less desiccated. Because the artifact skin is so dehydrated it proved difficult to match to those sources. A close up image of artifact fur and skin surface structure is shown in Figure 76.



Figure 76: Binocular-microscopic view (25X) of artifact fur and skin (Photo by Diane Newbury)

Microscopic study of the artifact fur: Using both reflected and transmitted light microscopes (100X-400X) I viewed the cuticle surface (scale pattern) and internal structure (medulla and cortex) of individual hairs. To obtain scale patterns, I used a basic

surface imprint process which involves coating a glass slide with a thin layer of clear nail polish, placing one or more individual strands of the hair to be studied in the nail polish, allowing it to dry, and then carefully removing the hair from the dried, clear polish. This results in a cast of the outer surface which can be viewed with a transmitted light microscope. The scale pattern appears to be either Imbricate or Mosaic in form. Figure 77 illustrates these two scale pattern forms.

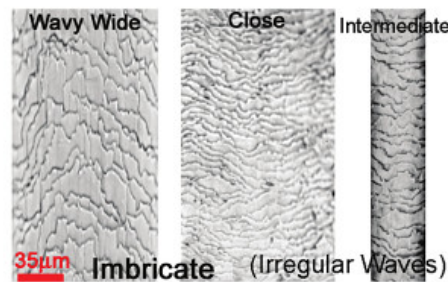


FIGURE 6.3 Imbricate or wavy scale patterns.

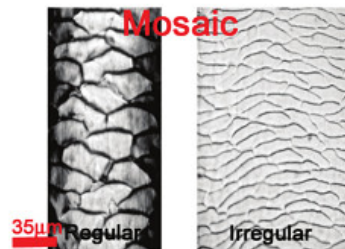


FIGURE 6.4 Mosaic or tile-shaped scale patterns.

Figure 77: Imbricate and mosaic scale patterns (Petraco and Kubic 2004:Figures 6.5-6.6)

Comparing this result to published materials for identifying animal fur (Petraco and Kubic 2004:Figure 13.10), the artifact fur seems to belong to one of the animal species on the left half of the chart (see Figure 80, Section A). The medulla filled a large portion of the hair and had a visible structure although quite variable between samples. The medulla appearance does not clearly match the sources I reviewed (Petraco and Kubic 2004:Figure 13.10) and may be due to deterioration of the hair structures. Microscopic views of the artifact hair shafts are shown in Figure 78 and Figure 79.

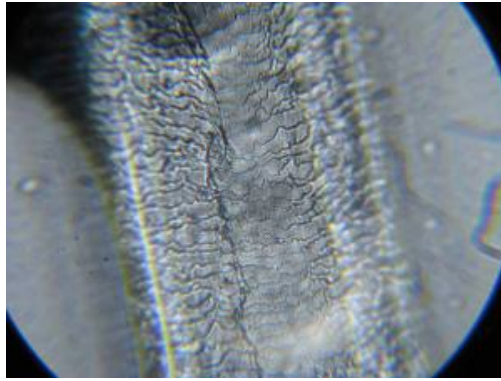


Figure 78: Microscopic view (400X) of fur scale pattern
(Photo by Diane Newbury)

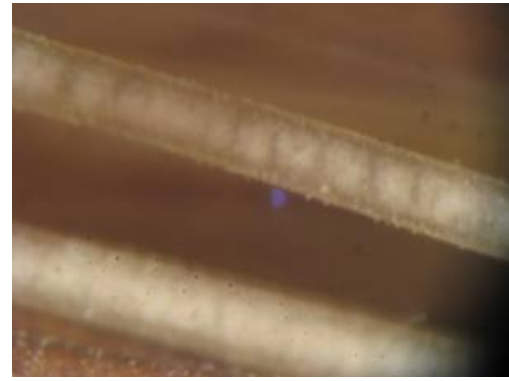


Figure 79: Microscopic view (100X) of fur medulla and cortex (Photo by Diane Newbury)

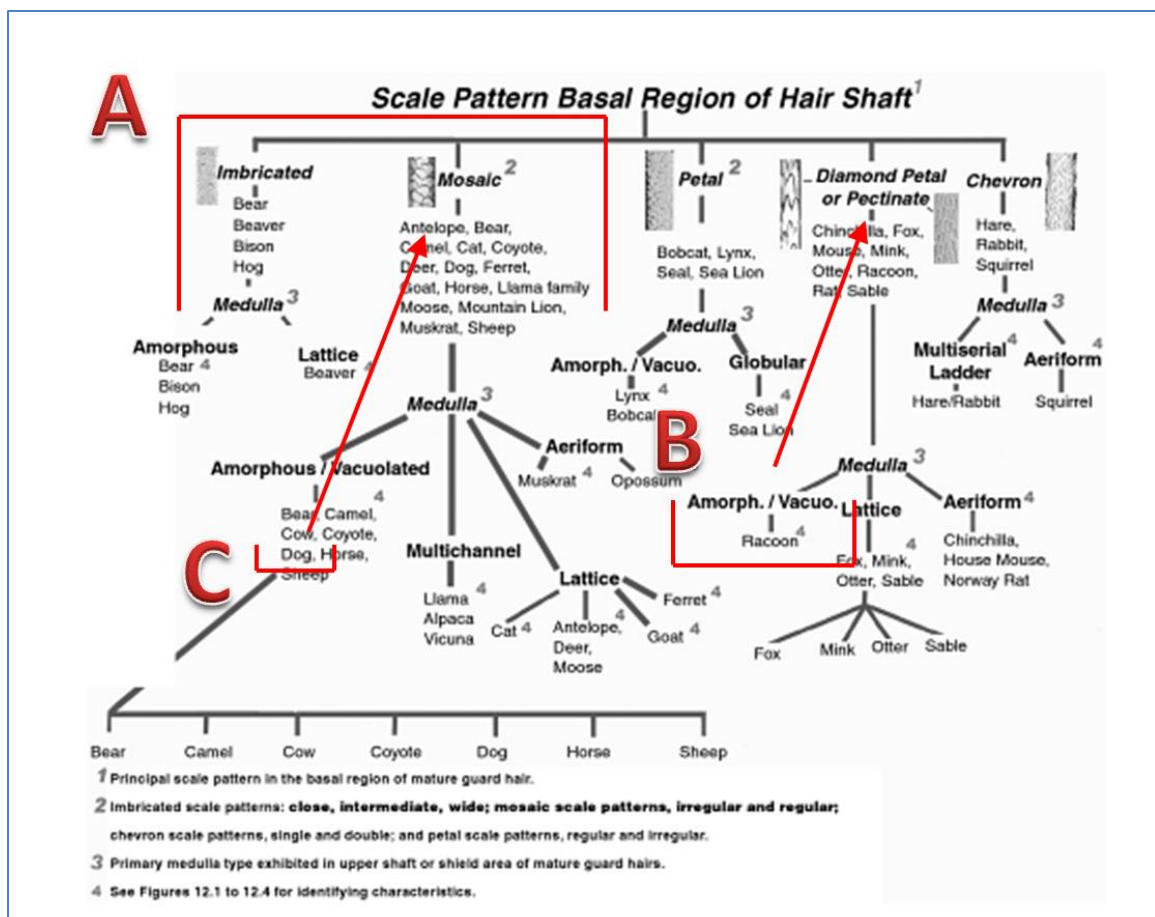


Figure 80: Animal hair identification flow chart (Petraco and Kubik 2004:Figure 13.10)

- A: Closest scale pattern match to artifact fur
B: Scale pattern and medulla for raccoon
C: Scale pattern and medulla for dog

Microscopic comparisons of scale patterns and medullar structure: I completed side-by-side microscopic comparisons of individual hair strands of the artifact fur to strand structures obtained from both living and taxidermied animals. Selection of animals to consider for the comparisons were based on mammals native to South America and which may have been available to the Andean Pre-Columbian people during the time frame of the artifacts. Living specimens included llama (*Camelidae*) fur obtained from Animal Acres Llamas in Dousman, Wisconsin, as well as spectacled Andean bear (*Tremarctos*) and two-toed sloth (*Megalonychidae*) fur samples examined on premises at the Racine Zoological Society in Racine, Wisconsin. Taxidermied specimens included red howler monkey (*Alouatta seniculus*) from the MPM mammalian collection.

Consultation with United States Fish and Wildlife (USFW): Two archaeologists / fur specialists, Bonnie Yates and Barry Baker, of the U.S. National Fish & Wildlife Forensics Laboratory, Morphology Section, Ashland, Oregon, studied samples of the artifact fur and through comparative studies of medulla and cortex hair structures eliminated a number of species. While the results were not conclusive, they suggested two potential species as possible candidates for the artifact fur as discussed below.

Overall Results for the Feather-and-Fur Pins

Taxa eliminated by direct microscopic side-by-side comparison of hair structures, scale patterns, and medullas with those of the artifact fur include llama (*Camelidae*), spectacled Andean bear (*Tremarctos*), two-toed sloth (*Megalonychidae*), and red howler monkey (*Alouatta seniculus*).

Taxa examined by The US Fish and Wildlife analysts and compared to the archaeological samples: spectacled bear (*Tremarctos*), coati (*Nasua*), crab-eating raccoon (*Procyon*

cancrivorous), kinkajou (*Potos flavus*), sloths (*Choloepus*, *Bradypus*, and extinct forms), giant anteater (*Myrmecophaga*), tamanuda (*Tamandua*), coyote (*Canis latrans*), dog (*Canis familiaris*), and cougar (*Puma concolor*).

Bonnie Yates of the USFW (personal communication, 2013) summarized her analysis accordingly: “The hairs are very degraded and most of the microscopic structures are either gone, obliterated, or autolyzed beyond recognition. The medullary index is the best feature, and it definitely is too narrow to be *Tremarctos*; it fits *Procyon* and *Canis familiaris* best, as does pigmentation where it is preserved.”

Tentative conclusions: Yates and Baker did not include scale structure in their analysis.

It is of value to note that raccoon (*Procyon*) has a more distinct petal-shaped scale structure (see Figure 80, Section B), which did not match the more mosaic or imbricated scale patterns of the artifact fur. This suggests that raccoon is a less likely candidate. On the other hand dog (*Canidae*) has a mosaic scale pattern similar to the artifact fur, indicating that a species of dog is a potential match. An additional candidate is the Andean Fox (variously identified as *Dusicyon*, *Pseudolopex*, or *Lycalopex culpaeus*), also called *Culpeo*, which is closely related to the dog and has fur on the tail and rump resembling in color and length the unidentified fur on the artifacts (suggested by Ann Peters, personal communication 2014). Unfortunately, I have been unable to track down a source of either sample fur or microscopic imagery related to *Culpeo* fur. Figure 81 shows a photo of an Andean fox. Note the fur on the haunches and tail is similar in color and length to the unidentified fur.



Figure 81: Culpeo or Andean fox (Image source: Arkive.org)

Other Notable Non-Textile Decorative Items

While the following artifacts were not part of the larger groups, often having few if any similar items in the various collections reviewed, they each have some unique aspect worthy of brief discussion. I include these primarily in the hope that my observations may prove useful to some future scholar studying such featherworked artifacts.

Feather-and-String Wrapped Ornaments (MPM Catalog #A52213 and #A52214)

These small artifacts are constructed in a manner different from most of the other feathered decorative objects and due to their size may not have been used as headdress ornaments. Nonetheless, the effort and detail in their construction suggest that they were of some significance to the featherworker who made them. Both are composed of some of the smallest feathers tied via slender threads wrapped around bundles of grass-like vegetal materials. These artifacts may have been intended strictly as grave goods or if used in life, they could have been worn as small body adornments. Given the value of imported colorful feathers this method of construction may have been a means to use feathers that were too small to attach individually to braids or feather strings.

Catalog #A52213: (Figure 82 below) The artifact is approximately 40 cm tall by 11 cm at the widest point. Composed of multiple grass-like stalks of vegetal material wrapped around a single longer orange feather which is at least 4-5 centimeters in length (these larger feathers are quite degraded, so overall length uncertain). Each feather-and-grass stalk is covered with very small (1-3 cm) orange feathers, tied via single Z-spun slender cotton threads. The feather wrapped stalks are bundled together at the bottom of the stalks with cotton yarns that may be the same material as the wrapping threads, but are Z-spun and then 3 or 4 times S-plied. The handle section is a large braid of what appears to be tails of vegetal or bast materials attached to each of the feather wrapped stalks. The overall composition includes cotton, plus two different forms of unidentified vegetal/plant material. Further research to identify any of the vegetal material has the potential to narrow regions where the specific plant material was obtained. The large braid as a finishing technique is less common among the artifacts, but definitely appears a few times in the various collections I reviewed online and during museum research visits.

Catalog #A52214: (Figure 83 below) The artifact is quite small, approximately 12 cm tall by 16 cm at the widest point. Composed of multiple grass-like stalks of vegetal material covered with very small (2.5 cm) light yellow feathers, tied via single Z-spun slender cotton threads. Figure 84 shows a close up view of the tied and wrapped feathers. The feather wrapped stalks are bundled together at the bottom of the stalks with cotton yarns that may be the same material as the wrapping threads, but are Z-spun and then 3 or 4 times S-plied. No additional work is evident, making it difficult to ascertain a function for this item beyond some decorative or symbolic purpose. As suggested for Catalog #A52213 above, research to identify the vegetal material may prove informative as to

likely areas where the material was grown or harvested perhaps yielding further clues as to locale of manufacture for these artifacts.



Figure 82: Feather-and-string wrapped decorative object (40cm X 11cm) MPM Catalog #A52213 (Photo by Diane Newbury)



Figure 83: Feather-and-string wrapped decorative object (12cm X 16cm) MPM Catalog #A52214 (Photo by Diane Newbury)



Figure 84: Close up of feather and string wrapping MPM Catalog #A52214 (Photo by Diane Newbury)

At the American Museum of Natural History in New York there are several examples of these feather-wrapped objects, some of which are quite elaborate. The smaller object, AMNH Catalog #41.2/6157 (see Figure 85), may be an example of an incomplete item, part of a larger item, or perhaps a small decorative object of uncertain purpose. The larger and more elaborate piece, AMNH Catalog #B/7721 (see Figure 86) shows many of the

same construction techniques described earlier in this chapter for fan-shaped objects including the use of a basting yarn for each layer, couching yarns, and end string. While the feather-wrapping technique may have had practical purposes for ensuring the complete use of valuable feather stock, it appears to have been an intentional method for obtaining a desired appearance in the finished product.



**Figure 85: Small feather wrapped object
(4cm X 4.5cm) AMNH Catalog #41.2/6157 (Photo
courtesy of AMNH)**



Figure 86: Elaborate feather wrapped object (34cm X 41cm) AMNH Catalog #B/7721 (Photo courtesy of AMNH)

Possible Inca Headdress Ornament (MPM Catalog #A54992)

(Figure 87) There appear to be no objects similar to this artifact in the various collections that I studied. It is of particular interest due to its notable similarity in construction and overall shape to ethnohistoric imagery from Felipe Guaman Poma de Ayala (2009[1615]). Multiple images from de Ayala's drawings show a comparable headdress ornament associated with the Inca (see Figure 88).

Composed of a slender (0.5 cm thick) stick, approximately 24 cm long, which appears to be complete as the bottom tip is carved to a smooth rounded point while the top tip, hidden under the feathers, is cut not broken. The widest point of the artifact is 16 cm. Two types of feathers are used in the composition. Dark brown-black medium-length (4.5 cm) feathers and longer (9-10 cm) pale orange feathers are used to create two feather-string attachments. Additional pale orange feathers are attached to twisted vegetal material and form an inner ring tied to the stick. The primary sets of feather attachments

are two feather strings, one of each feather color, using cotton yarns that appear to be S-spun, 3- or 4-ply-Z. Notable is the unusually tight, neat, and regular feather-string composition of one or perhaps two slender threads (note close-up image of feather-string attachments in Figure 89 below) holding the bent tips directly side by side. The feathers are sewn through the feather shafts to create a somewhat sheet-like rigidity with cotton threads that appear S-spun, 2-ply-Z on the top orange feather string and unplied, spun-S on the bottom black-brown feather string. The orange feather-string is tied to the stick in an upright fashion, while the brown-black feather string is tied facing downwards. The tie yarn material holding the twisted feather attachments and the two sets of feather strings to the stick is cotton, S-spun, and between 3- to 5-ply-Z.



**Figure 87: Unique feather-wrapped pin MPM Catalog #A54992
(Photo by Diane Newbury)**



Figure 88: Inca headdress imagery (Guaman Poma de Ayala 2009[1615])



Figure 89: Microscopic view (25X) of feather strings MPM Catalog #A54992 (Photo by Diane Newbury)

Possible Paracas Headdress Ornament (MPM Catalog #A52186)

This artifact is on display at the Museum (Figure 90) and is another example of a unique object without similar counterparts in the collection. The feathers are attached to individual stalk-like components composed of thread wrapped vegetal material. The

bottom tip of each stalk or shaft is woven into a circular basketry-style woven base (see Figure 91) in what appears to be two or perhaps three concentric circles. Due to the fragile nature of the entire structure, I was unable to clearly view the inner portion of the headdress. The central circle of feathers was constructed so as to stand the tallest, giving a crown-like appearance to the artifact. The entire woven feather crown is attached to a short, slender wooden pin that is finished to a pointed tip on the bottom. The upper tip of the wooden pin was not visible. Overall measurement for the entire object is approximately 53 centimeters in length making it one of the longer, or perhaps more appropriately taller, of the non-textile artifacts in the study.



Figure 90: Unique feather crown pin MPM Catalog #A52186 (Photo by Diane Newbury)



Figure 91: Woven base of feather crown pin MPM Catalog #A52186 (Photo by Diane Newbury)

The complex and unusual manufacture of this particular stick-based feathered piece, as well as the striking similarity between this artifact and a series of sketches (see Figure 92) of Paracas headdress components (Yacovleff 1933:Figure 3c-f) makes it a candidate for future study.

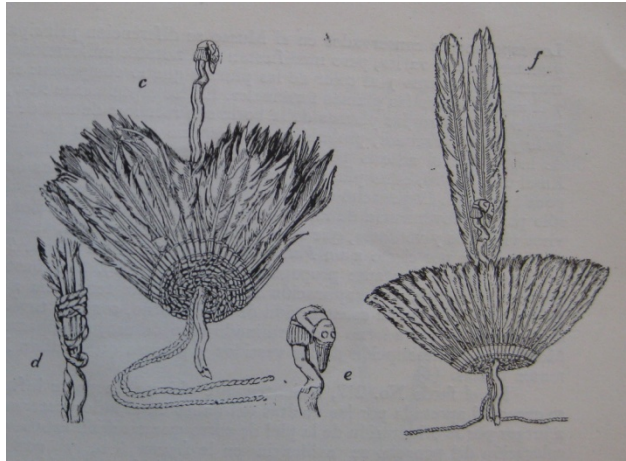


Figure 92: Paracas feather crown pins (Yacovleff 1933:Figure 3c-f)

Worth noting is that the imagery for similar Paracas artifacts consistently shows a thicker, more stout stick for the support. Nonetheless, given the strong connection between the Paracas and their descendant culture the Nasca, this artifact may prove to be from the region of Paracas and/or Nasca influence.

Headdress Ornaments or Fans?

In Chapter 2, I noted that Peters (2000:244) stated that Paracas burials often had feathered headdress ornaments in pairs. While I did not find imagery of specific Paracas headdress ornaments, there are a few of the artifacts in the MPM collection which could have been intended as part of a set. Examples of similarly constructed, possibly matched feathered objects include two fan shapes as seen in Figure 93 and two stick-based shapes as shown previously in Figure 70. The apparent similarity between these artifacts suggests that they were made to be used or displayed together, but the ultimate purpose remains unknown. The matching objects may have been intended for bodily adornment on one person or on a group of people or for decorative purposes other than on a person's body.

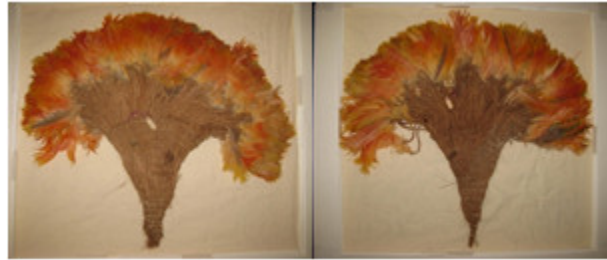


Figure 93: Possible pair of fan-shapes MPM catalog #A52244 and A52245 (Photos by Diane Newbury)

On two of the MPM fan-shaped feathered pieces (catalog #A52221 and #A52238) I found what may be a few strands of human hair caught or tangled in the vegetal fibers of the handle. It is, of course, impossible to determine when this hair became attached to the artifacts, but it is nonetheless suggestive of the artifact having been placed on or near a human head at some time prior to my examinations.

Much of the imagery such as the basketry hat with feathered insert in this chapter (Figure 54 and Figure 55) and the Inca miniature (Figure 33) in Chapter 4 suggests a common use of such objects as headdress components. Conversely, other examples such as the Nasca iconography on Figure 36 in Chapter 4 appear to show feathered objects held in the hand. Although there seem to be more examples of such objects worn on or near the head, there is not enough evidence to rule out other possible functions.

Chapter Summary

This chapter addressed the second goal of this thesis which was to identify potential function for items in the MPM collection. Structure and iconography suggested that many of the objects could have been intended as components of headdresses. In this chapter I discussed my review the 72 non-textile featherworked artifacts in the MPM collection, focusing on construction and materials in an effort to decipher possible function and/or cultural affiliation. I incorporated comparisons with similar items in other museum or

published collections. I grouped these items, based on structural distinctions, into the following broad categories: fan-shaped items (51), stick-based pins or plumes (14), and other decorative items (14).

For the fan-shaped items I identified what I believe to be stages of a potentially standard production process, suggesting that a number of unidentified artifacts in current museum collections may be objects in the process of manufacture rather than finished pieces. The number of fan-shaped feather items currently held in the museum collections reviewed here suggests there would be a good sample size available for further study. Additionally, the rigidity or lack thereof for the fan-shaped artifacts may indicate type of use. The more rigid results could have been held or worn upright, with feathers pointed upward, without much added support, while the less rigid would have needed some form of support such as a turban or woven hat. Other options are that some of the less rigid artifacts may actually be unfinished braided devices or perhaps small, last-minute grave offerings. Again, further research with archaeologically-provenienced examples could prove enlightening.

I initially assumed that studying the yarns and threads used to construct the fan-shaped artifacts might show some correlation to the common structures and potential provenience markers identified for Andean textiles. Overall the yarn structures such as spin and ply on the various non-textile artifacts were not consistent with any particular cultural indicator. Mixtures of yarns may indicate that multiple individuals worked on these types of objects, that some yarns may have been made elsewhere and imported, or that the yarns themselves were of less importance than the rest of the item. Each of these

possibilities offers potential for future exploration of the purpose and meaning of similar non-woven featherworked artifacts.

For the stick or pin style items I noted that eight of those in the MPM collection included animal hide and fur as well as feathers. Similar items were noted in other collections. Attempts to identify this mammalian skin and fur included microscopic comparative work and consultation with US Fish and Wildlife researchers. This served to eliminate several possible animal sources, including llama (*Camelidae*), spectacled Andean bear (*Tremarctos*), two-toed sloth (*Megalonychidae*), red howler monkey (*Alouatta seniculus*), coati (*Nasua*), crab-eating raccoon (*Procyon cancrivorus*), kinkajou (*Potos flavus*), sloths (*Choloepus*, *Bradypus*, and extinct forms), giant anteater (*Myrmecophaga*), tamanuda (*Tamandua*), coyote (*Canis latrans*), dog (*Canis familiaris*), and cougar (*Puma concolor*). A positive identification has yet to be made, but Andean fox remains a possibility.

For the additional feathered items that were not in the two larger groups, I described several forms. One variety is composed of feathers tied or wrapped with string around vegetal stalks and then bundled into a decorative object. This construction method may have been intended to ensure the complete use of the smallest of the imported Amazonian feathers, but may also have been a method to produce a desired appearance for these objects. Additional examples of this type of construction were reviewed from other collections, including two examples from the American Museum of Natural History. A second unique feathered object I described was a stick-based featherwork item that was composed of two feather strings, such as was commonly used to construct the textile-based featherwork. This artifact resembles imagery created by Felipe Guaman Poma de

Ayala in his drawings of Inca elite and royalty and may indicate an Inca provenience. The last artifact reviewed was a rather large (53cm X 31cm) feathered object that was composed of a woven base to which more than one concentric circle of feathers were attached all of which was then affixed to a wooden pin or stick. Consulting imagery for Paracas artifacts shows a very similar structure found in Paracas burials suggesting either a potential Paracas or later Nasca origin.

Finally, I reviewed the potential original purpose or use of the objects in this group of artifacts. I concluded that although there is much evidence to suggest these may have been intended as headdress components, I acknowledged there is currently not enough evidence to support or reject this hypothesis.

CHAPTER 7: DISCUSSION AND CONCLUSIONS

In this summary I first address the specific results and successes as aligned with the project goals and then I discuss additional aspects of the research that proved beneficial in understanding the research goals and the MPM collection. This thesis describes a limited-provenience collection of featherworked archaeological artifacts at the Milwaukee Public Museum (MPM). The goals of this research were to determine if it is possible to reconstruct lost indicators of cultural, regional, or temporal provenience as well as to determine possible function of the artifacts. By studying the construction and style of the artifacts and comparing them to published descriptions of similar items, comparable collections in other museums, representations in prehistoric iconography, and ethnohistorical/ethnographic studies I sought to evaluate potentially diagnostic traits of cultural and functional identity.

Based on the research that I conducted, I can state that it is possible to achieve the goals that I set out to accomplish. Through detailed study of the MPM collection, comparisons with collections at the AMNH, MMA, and Brooklyn Museums, comparisons with other types of artifacts from the Peru regions, and discussions with experts in the areas of study, I was able to identify specific indicators that lead to identification of cultures, regions, timeframes, and use of the various artifacts.

Results According to Thesis Goals

Time Period and Culture

Do featherwork artifacts contain discernible indicators of cultures, regions, and time frames that can be used to reconstruct lost provenience? If so, which artifact details have the most diagnostic potential?

Certain characteristics, particularly for textile-based artifacts, do have diagnostic value and may be considered to be cultural signatures. As detailed in Chapter 4 of this thesis, categories of potential provenience indicators applicable to textile-based artifacts accumulated and cited from literature and expert sources were used with generally positive results. Chapter 5, Table 7 summarizes much of the analysis and general conclusion performed against the textiles in the MPM archaeological featherworked collection. Highlights are referenced below.

- *Raw materials* such as cotton, camelid, and post-conquest materials such as sheep's wool can successfully suggest broad regional results such as coastal versus highland origins or whether an article was made post-conquest. The textile-based material in the MPM collection is composed almost entirely of cotton, which suggests a coastal provenience, as shown in Chapter 4, Table 2.
- *Yarn construction* such as spin and ply detailed in Chapter 4, Table 3 also carry some cultural indicators, particularly when used in conjunction with other characteristics to accumulate a preponderance of evidence. Traits associated with Inca (3-ply), North Peru (single S), or Chimú (camelid) were not evident in the

MPM collection and lead to the conclusion that the objects are more likely associated with south coastal cultures such as Nasca and Ica/Chincha.

- *Weaving construction* such as warp, weft, finishing techniques listed in Chapter 4, Table 4 proved to be some of the most useful and perhaps most easily identified cultural signatures in textiles, allowing the researcher to either identify or eliminate cultures, regions, and some time frames. Identification of any unique selvage construction should prove useful with additional research or the assistance of an experienced Andean textile expert.
- *Form and apparent function* of the finished woven material as listed in Table 5 of Chapter 4, such as garments (i.e., tunics versus tabards, length versus width, one-versus two-web construction) or miniature textiles versus coca bags are all useful cultural indicators from which many specific cultures and regions were eliminated, narrowing the range of possibilities for the MPM collection to pre-Inca with potential Ica/Chincha origins.
- *Feather string construction* can help eliminate Paracas (i.e., one-thread assemblage with one-thread attachment as discussed in Chapter 2 and depicted in Figure 18) and should prove very useful for comparisons to other cultures and regions with further research and analysis against featherworked textiles of known or accepted provenience.
- *Stylistic patterns* of color and iconography as shown in Table 6 of Chapter 4 proved useful particularly on the miniature textiles/tunics containing the sunburst imagery suggesting male-related symbolism.

- *Radiocarbon dating* was not used directly, but comparisons to other collection artifacts that were carbon dated helped to confirm some of the assumptions drawn based on the above criteria strengthening the post-Paracas, post-Early Nasca, but pre-Conquest timeframes.

All of the items in the MPM collection were originally listed with a general provenience of “South Coast, Peru” with almost none being labeled according to a specific culture or temporal range. The research on the textiles tends to confirm the south coastal association and narrows the likely time frame to possible pre-Wari (approximately 9th century AD on the South Coast), but possibly as late as the Ica-Chincha (approximately 13th century AD to pre-Inca coastal expansion around the 1500s).

There were 49 feathered textiles in the MPM collection, of which 31 represented unique woven items. All of the textiles were composed of cotton and most were made with yarns Z-spun and 2-ply S which strengthens the likely coastal origin. Of the textiles where it was possible to determine a form and function, the larger artifacts appear to have been tabards tied at the sides and not sewn, would have hung below the waist and above the knees when worn, suggestive of many South and Central Coast cultures, but not indicative of Tiwanaku or Inca influence. The smaller textiles were all miniature textiles rather than coca bags, with a mix of both male and female styles represented. This again is suggestive of South Coast origins. The oval or sunburst imagery evident on the larger tabards and some of the miniature tunics are associated with origins in the Lower Ica Valley, but across an extended time frame being from the Middle Horizon (approximately 7th through 9th centuries AD) through to possibly as late as the Late Horizon (approximately the 16th century AD). Although some of the textile artifacts are

too fragmentary to determine warp versus weft, most have at least one partial selvage. None of the textiles appear to have paired warps, which reduces the likelihood of North Coast Chimú origin or influence.

In summary, for the MPM collection, this thesis suggests that the majority of the feathered textile artifacts date after the Paracas cultures at one extreme and before Inca at the other, with enough indications to validate the South Coast origin of much of the material. Additional indicators suggest a time frame that pre-dates the pre-Wari expansion around 9th or 10th centuries AD, but comparisons to the radiocarbon dated artifacts in other collections yield a different possible time frame that is after the Wari receded and in the Ica-Chincha sphere of influence just before the Inca expansion.

Artifact Function

Do featherwork items contain observable details that provide information about their original function or type of use? Can prehistoric iconography and ethnohistorical or ethnographic sources contribute to such interpretations?

Many of the textile-based articles had obvious use as tunics, tabards, or miniature garments. Comparison with iconography from other artifacts such as pottery or textiles with designs provided a way to refine how each of these may have been used. More ambiguous in terms of function are the 72 non-textile feathered artifacts in the MPM collection, including 51 fan-shaped items, 14 stick-based pins or plumes, and 14 other decorative items. For these non-textile items attributes of spin, ply, and weave were not relevant as attributes of cultural origin. Instead I was able to employ several other methods to identify how the items may have been used.

- *Imagery* from drawings of early explorers and from pottery and textiles showing objects similar to the artifacts provided clues for identifying uses.
- *Documentation* from archeological expeditions indicated the presence of similar artifacts, in particular fans, as part of mummy bundles.
- *Comparison* with more elaborate artifacts from other museums indicate that certain artifacts, in particular the feathered fans, could have been part of more elaborate structures such as headdresses. While the evidence is not conclusive in this regard, there is enough evidence to consider additional exploration. In particular, detailed examination of the entire MPM collection led me to believe that some of the objects were specifically constructed so they could become incorporated into a more complete object.

The issue of function for fan-shaped feather items was reviewed, with a combination of evidence suggesting that both hand-held and headdress-attached items are possible. Of particular value to understanding potential function of the fan-shaped and braided feather artifacts are known examples such as the woven hat artifact from *Museo de Huaca Malena*, attributed to either the Wari or possibly Inca. While few inferences may be drawn regarding diagnostic attributes of specific cultures, regions, or time frames of origin, artistic representations of fan-shaped feathered items were found for multiple cultures, including both Nasca (both hand-held and headdress-attached forms) and Inca (headdress-attached).

The other major type of non-textile feathered artifact in the MPM collection was a stick or pin, items in which feather had been bound to a wooden stick of variable length.

Although no specific cultural association can be drawn, for certain forms similarities

exist to imagery related to the Inca. Attention to structural details provides new insights into the manufacture of the items and suggests certain aspects of function. Also of note was the shaping of the ends of some of the pins, suggesting a complete artifact that would be shorter than imagery associated with staffs, and the breakage of the wooden stick in some of the items, suggesting possible ritual “killing” of the item at the end of its use-life.

Additional Results

One of the more interesting areas of exploration that I was able to develop was an understanding of the construction techniques for some of the artifacts, in particular the fan-shaped feathered objects. Because of the large number of these objects in the MPM collection, I was able to identify a series of construction steps that seems to be relatively common across collections. I could identify artifacts that at first appeared to be loose collections of feather braids, but which I later concluded were preliminary steps for the production of the fan shaped artifacts and other objects as described in Chapter 6. This highlights an important role of museum collections; they gather together multiple examples of similar objects, improving our ability to recognize and understand manufacturing sequences. In this case it is the size of the sample that is important.

An unexpected result of studying the stick-based feathered pieces is a beginning to the identification of a heretofore unidentified mammal hide and fur used to create artifacts housed at MPM and at least one other museum (AMNH in New York). An attempt was made to identify the species of animal that had contributed furred hide to the bindings of one style of pin or plume. Several potential coastal and highland animals, including spectacled bear and llama, were eliminated while dog or fox remain as strong possible candidates. While these results were not as conclusive as I had hoped, they narrow the

field of possibilities and call attention to a neglected feature of these artifacts that could be pursued in the future. Much of the process I followed is easily replicated with little or no cost and minimal impact or damage to artifacts with fur.

Another result of my research was an understanding of a range of techniques that can be employed to research unprovenienced collections. It is my hope that the criteria assembled in Table 2 through Table 6 will be of use to others and that others will be able to add to them and refine them. Similar to studies conducted at archeological sites, an intense examination of details is required to identify those characteristics of the artifacts that can yield clues to their origin and use. It then becomes necessary to compare that information with other sources, and to do that I had to visit other museums, confer with other researchers and academics with knowledge in the areas of study, and conduct extended research into the materials used for constructing the artifacts.

Public outreach also played an important role in this study of a museum collection.

During the period that I was researching the MPM collection I made several presentations, including formal PowerPoint and poster presentations and informal artifact displays. Venues included scholarly events focused on research into Andean cultures and other relevant fields, and museum outreach programs, which focused on educating the general public. I found that not only was I able to share my findings and awaken interest in others, but that I also gained by the questions and suggestions offered by others and the expanding network of people and resources that resulted.

A significant result of my research and the writing of this thesis was the extensive analysis and documentation that I was able to produce related to the MPM collection of featherwork artifacts. Appendix B provides a detailed description of each object, along

with a color photograph, creating a record of the collection that is more extensive and detailed than was previously available. As archaeologist John Rowe of the University of California at Berkeley noted in his 1961 letter to Parsons regarding the Whyte collection (Appendix A), "...it might contain much material of scientific importance. ... Later on sometime I should be most interested to have an opportunity to see your new Peruvian collection, and am delighted that the material is at an institution where it is evidently being treated with real interest." It is my hope that this thesis will make at least the featherworked material from this collection much more accessible to researchers.

As a museum studies student I also take some pride in having been able to give back to the MPM and its mission through my evaluation of the current condition of these fragile feather items and my efforts to leave them in an improved state. During the course of working with these objects, those retrieved from storage and those on exhibit, I was able to identify a previously unrecognized dermestid problem and I worked with Christine del Re, MPM's Conservator, to eliminate the problem through freezing. Additionally, storage materials and supports were refreshed in a number of the curation drawers and for the fans on exhibit in case 3CM27.

In working with these materials I came to appreciate what a hidden gem of a collection is housed at MPM. The Whyte collection provides an unusually large and diverse collection of Peruvian feathered artifacts that rivals those found at larger and better known museums. The size of the collection allowed me to study aspects of the artifacts that would have been difficult with smaller collections, such as the understanding I was able to gain about the construction techniques used. It became obvious to me how important collections such as this one are, despite their minimal provenience. They do provide an

avenue for increasing our knowledge of ancient cultures not only through comparison with other, better-provenienced collections, but, equally important, through the thorough analysis of the items themselves, which can provide clues to both their function and their culture of origin.

Areas for Future Research

Detailed study of artifact construction such as feather-string assemblage methods and unique aspects of weft and warp selvage finishing may prove beneficial to scholars in the future. Both need more detailed study and documentation using known- or accepted-provenience materials before they can be successfully applied to limited-provenience collections.

Other areas that may prove fruitful in future research include identification of the vegetal material as this may show regional access to plant material which may yield clues as to original localities. Radiocarbon studies, particularly Accelerator Mass Spectrometry (AMS) dating due to its suitability for small samples, should prove useful and informative in studies of museum collections whenever feasible. Radiocarbon tests of textile-based artifacts have particular potential since textiles have proven to be generally reliable materials for this testing and minimally destructive methods can be used (Van Strydonck 1992:929, 931). Testing archaeological feathers has also been successfully performed (Van Strydonck 1992:932). Although the costs may continue to limit the use of AMS techniques, where these costs can be met, the sample sizes required are so small as to be worth consideration particularly where museum policies limit destructive analysis. For example, according to one testing company (Beta Analytic Radiocarbon Dating 2014) only 20-50 milligrams for textile testing is required to perform AMS dating.

Research on this collection of feathered items has heightened my own awareness of the benefits of improved communication between specialists in different research disciplines. The language and meaning of provenience is sometimes lost in the steps that artifacts take from archaeological excavation to curation and eventual analysis by museum or art history specialists, and efforts to improve this communication could help future scholars. Additional means for noting, describing, and illustrating in more widely accessible ways the rarer or more ephemeral materials such as textiles and featherwork found in controlled excavations should be encouraged to aid in shared knowledge and research.

Concluding Comments

While challenging and often requiring more effort, attempting to identify cultural affiliations for archaeological artifacts from museum collections is not a pointless endeavor. This study shows that comparing limited-provenience artifacts with those that have documented or academically-accepted provenience can add to our understanding of both. As we pursue research in an effort to align human-made products with people, place, and time, these studies can only enrich our understanding of humanity's ancestry.

It is important to note that collections such as the Whyte Pre-Columbian Collection and groups of artifacts such as the featherwork housed at MPM must be viewed from the lens of limited and diminishing opportunities. First, the extent of this collection is unusual and without the resulting number of multiple similar items to compare, I would not have realized that some items are most likely part of a construction sequence. One artifact of a particular type would not be as informative, whereas the existence of collections with multiples of similar objects allows the researcher to see patterns and potentially decipher process. Due to more ethical and hence more restrictive approaches to collecting artifacts,

driven in part by material culture laws as discussed in Chapter 2, these types of collections may be the last of their kind. This, in itself, is a strong argument against museums deaccessioning artifacts that might have limited provenience or be perceived as redundant or fragmentary. Existing museum collections have unparalleled value as resources for research and study. Going forward, existing collections may be the most readily available resource for students and scholars to study. Collections such as the MPM Andean Featherwork collection are all too ready to give up their “secrets” and add to our knowledge.

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APPENDIX A: MPM FEATHERWORK COLLECTION BACKGROUND

Correspondence related to the Whyte Collection is included here as background information and to aid other researchers who may pursue information on this MPM acquisition in future.

Inventory Completed on Accession #18046 by Junius B. Bird, 1961

The correspondence below indicates that the Whyte Collection from Bird's perspective as a South American archaeologist and curator at the AMNH in New York was a chronological and cultural mix. Ceramics and textiles are detailed, featherwork is not. Ceramics and textiles range from Paracas, Nasca, Ica/Chincha, Central Coast, and Inca. Ceramics also include Chimú. Among ceramics Nasca dominates (76%); for textiles Nasca (43%) and Inca and Post Conquest (20%) do. If much of the material came from south coast tomb looting, Nasca seems one of the major sources.

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Accession # 15046

mostly from Ica Valley, according to Sawyer

THE MALCOLM K. WHYTE COLLECTION OF PRE-COLUMBIAN PERUVIAN (LARGELY SOUTH COAST) MATERIALS DONATED TO THE MILWAUKEE PUBLIC MUSEUM IN 1960 and 1961

Classification and Itemized List, with appraised evaluations by Dr. Junius B. Bird, Curator of South American Archeology at the American Museum of Natural History

Total Collection as Appraised:

QUANTITY EVALUATION

1508 archaeological specimens		\$40,465.00
10 ethnological specimens		30.00
1518 Total Specimens (2002 actual pieces)	1518	\$40,495.00
10% = 151.8 not south coast (Central & Northern)		

Collection Donated to the Milwaukee Public Museum:

(12 specimens have been withdrawn by the donor)	\$	365.00)
1960 Donation:		
784 specimens - 952 actual pieces		\$27,003.75
1961 Donation:		
722 specimens - 998		\$15,126.25
1506 Total specimens	1506	\$40,130.00

Classification and Itemized List of the Whyte Collection (1960 and 1961 Donations)--(This list does not include the 12 withdrawn specimens):

DESCRIPTION	QUANTITY	EVALUATION
I. WHOLE, OR RESTORABLE, CERAMICS		
a) Paracas	38 87%	\$ 3,815.00
b) Nazca (A and B)	300 62%	11,208.00
c) Middle Period (Nazca Y, Huari-influenced, and Coast Tiahuanaco)	67 14%	3,240.00
d) Ica (Chincha)	46 10%	900.00
e) Inca	6 1%	485.00
f) Central Coast (Chanay--6 at \$175.50, and Other 9919 at 681.50)	25 5%	857.00
g) Chimu	4 .01%	75.00
Total, Ceramics	486	\$20,580.00
II. WHOLE AND FRAGMENTARY TEXTILES		
a) Paracas (?)	7 1%	57.00
b) Nazca A (Three dimensional needle-knit borders -- 48 at \$1,832.00 General -- 165 at 1,477.25)	213 31%	3,308.25
c) Nazca B (late Nazca)	27 4%	1,553.00
d) Middle Period (Nazca Y--Coast Tiahuanaco)	52 8%	1,600.00
e) Ica (Late Intermediate)	76 10%	1,394.00
f) Inca (Late)	106 20%	1,763.00
g) Post Conquest	14	227.00
h) Central Coast	8 1%	245.00

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<u>DESCRIPTION</u>		<u>QUANTITY</u>	<u>EVALUATION</u>
(TEXTILES, continued)			
1) Unknown		135 20%	\$ 2,005.00
j) slings		49 7%	980.00
Total, Textiles		687	\$13,112.25
III. FEATHERWORK	Total,	113	\$ 1,884.00
IV. MISCELLANEOUS			
a) one unique bundle of miniature carvings		1	\$ 1,500.00
b) quipus		3	550.00
c) sewing kits		3	615.00
d) General		203	1,858.75
Total, Miscellaneous		210	\$ 4,823.75
V. ETHNOLOGY			
Feather and bead work, Montana area		10	\$ 30.00
Grand Total, Whyte Collection, donated to the Milwaukee Public Museum in 1960 and 1961 --		1506	\$ 40,130.00

Having personally gone through the Whyte Collection piece by piece, and having quoted estimated evaluations based upon my knowledge of the New York market in recent years, I agree that the above value totals are reasonable and in keeping with my appraisal of the collection.

Julius B. Bird

Dr. Julius B. Bird,
Curator of South American Archeology
American Museum of Natural History
New York, New York

Date: Feb 15 1961

Correspondence between Lee Parsons and John H. Rowe, 1961

Lee Parsons, working in the Anthropology department at MPM when the Whyte Collection (accession #18046) was received, wrote to John H. Rowe, professor of anthropology and a Peruvian archaeologist for help in identifying some of the objects in the collection. Rowe's response is included here to offer additional background information on what was known or determined about the collection. A portion of his original letter (Feb. 6, 1961) with notations from Larry E. Dawson was returned along with Rowe's June 2, 1961 reply. The artifacts in question were eleven ceramic objects. Rowe and Dawson's replies indicate that the artifacts were all thought to be late Paracas or early Nasca from the Ica Valley.

DEPARTMENT OF ANTHROPOLOGY
BERKELEY 4, CALIFORNIA

UNIVERSITY OF CALIFORNIA

2 June 1961

Dr. Lee A. Parsons
Division of Anthropology
Milwaukee Public Museum
818 West Wisconsin Avenue
Milwaukee 3, Wisconsin

Dear Dr. Parsons:

I am very sorry that it has taken me so long to answer your kind letter of February 6 regarding the collection of Peruvian archaeological specimens which your Museum acquired last year. Both I and the other Peruvianists here were much interested in the pictures you sent and in hearing about the collection which sounds as though it might contain much material of scientific importance. It is only because I have been so far behind with everything this spring that I have not managed to write to you sooner. We have just finished spring classes, and I am trying to catch up on all the back work I should have done months ago.

I enclose a sheet giving Larry Dawson's phase identification for the Paracas specimens of which you sent photographs. We are preparing for publication a classification of the Paracas pottery of the Ica Valley, which groups it in ten successive phases, and we are numbering the phases with Arabic numbers. Since there are local differences among the various valleys in which the Paracas style occurs, we are using the place name Ocucaje to designate the local tradition in the Ica Valley. Our phases are, therefore, labeled Ocucaje 1, and Ocucaje 2, etc. I suspect from the appearance of your specimens that they probably come from the Ica Valley, and consequently should be datable in this scheme.

To give you an idea of how the numbers of our sequence match the designations used earlier, I might explain that Ocucaje 9 is contemporary with the Cavernas burials at Paracas, and Ocucaje 10 is contemporary with the earlier Necropolis burials at the same site. The burials which Soldi excavated at the site which he calls "Juan Pablo" correspond to our phases Ocucaje 6, 7 and 8 for the most part.

I am very sorry that I cannot help you very much in identifying the small textile bundle. However, I am virtually certain that it is not as early as the Early Intermediate Period; none of the pieces in the bundle are of Nasca style. The bundle may be as late as the Inca period, but does not contain any specimens so characteristic of a particular known style that I would want to make an attribution without more information. I presume that there is no evidence of its provenience, and there are still many local styles in Peru about which we know very little. The small stone llama figure is not

Dr. Lee A. Parsons
2 June 1961
Page 2

exactly like Inca ones I have seen, but is more like this type than anything else I know of.

The glass cover on the color slide of the textile bundle was cracked in the mail before it reached me.

I am going to Peru this summer and will stay there into the fall collecting more information for the reports we are working on. Later on sometime I should be most interested to have an opportunity to see your new Peruvian collection, and am delighted that the material is at an institution where it is evidently being treated with real interest.

With all good wishes,

Sincerely yours,

John H. Rowe
John H. Rowe
Professor of Anthropology

vcv



Dr. L.E. Dawson:

I would greatly appreciate your examining our photos of the Paracas pieces. If you could place these in the sequence (Paracas I, II, etc.), and return this sheet with the filled in cultural designations, please do. See my letter to Dr. Rowe for explanation.

	<u>Our Catalogue Nos.:</u>	<u>Phase Period:</u>
<u>earliest Paracas</u>	51425 ¹⁸⁰⁴⁶	Probably Ocucaje 8, but perhaps as early as Ocucaje 6
	51420	Ocucaje 8
	51426	Ocucaje 8
	51426	Ocucaje 8
	51424	Ocucaje 8
<u>Early Inca</u>	51427	Ocucaje 8
<u>"Juan Rillo"</u>	51419	Probably Ocucaje 8, but could be Ocucaje 9, depending on base treatment
	51456	Ocucaje 8
	51455	Ocucaje 8
<u>Late Inca</u>	51417 "Incaed Saline"	Ocucaje 9
<u>("Cavacas" - "coricop")</u>	51418 "knotted"	perhaps Ocucaje 9, but very uncertain, an odd piece

All Dec really -

APPENDIX B: MPM FEATHERWORK COLLECTION DETAILS

All 134 featherworked artifacts reviewed for this project are included here with details recorded concerning dimensions, colors, construction materials and techniques, feather colors, observations concerning condition, and any unique aspects noted during my study of each object. The condition description is a much shortened version of the NSF Inventory process used at MPM for completing condition reports. My intent with including this detail is to provide further information for any scholars who would wish to pursue further studies of the MPM featherwork collection or to have details for comparing to other similar featherworked collections. Note: KE EMu is the collections management software in use at MPM.

The artifact records are grouped first by the three primary categories I assigned: Textiles, Non-Textile Ornamental Devices, and Miscellaneous. Within the three primary categories I grouped the artifacts according to my assessment of the basic structure as listed below and finally sorted by catalog number within each sub-category.

Featherworked Textiles: Belts/Bands, Larger Textiles: Mummy Face/Tunics/Tabards, Miniature Textiles, Fragments/Double Cloth, Fragments/(Likely Garment Sections

Non-Textile Ornamental Devices: Fan: Braid Bundle, Fan in Progress (Basting Yarn), Fan Shapes, Other Forms, Fan and Stick, Stick Based, Feather Wrapping, Worked Feather Bundles

Miscellaneous Featherwork: Band, Bird Wing, Feathers, Feather Bundle, Feather String, Pendant

Featherworked Textiles

Belts/Bands

Catalog: A52267 / Accession: 18046

Textiles: Belt/Band



Current KE EMu Display Name: Ornamental belt

Current KE EMu Object Description: Feather covered ornamental belt

Location: Exhibit 3CM27

Condition/Conservation: stable; no notable

Optional Description: Feather covered loss, stains, accretions, or repairs
ornamental belt

Notable Characteristics: Imagery of three bird-like anthropomorphic creatures in center, stripes and steps on sides

Textile Base

Description of Textile Base: Possible cotton, reverse not visible

Materials in Textile Base: Possible
cotton

Weave: Unknown, reverse not visible

Horizontal Maximum CM: 101

Vertical Maximum CM: 7.25/18.5

Horizontal Thread Count: Unknown,
reverse not visible

Vertical Thread Count: Unknown, reverse not
visible

Horizontal Spin/Ply: Unknown, reverse
not visible

Vertical Spin/Ply: Unknown, reverse not visible

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Unknown, reverse not
visible

F.S. Spin/Ply: Unknown, reverse not visible

A.T. Material: Unknown, reverse not
visible

A.T. Spin/Ply: Unknown, reverse not visible

Other Threads Description: Unknown, reverse not visible

Other Threads Material: Unknown,
reverse not visible

Other Threads Spin/Ply: Unknown, reverse not
visible

Feather Description: Feathers all clipped to create designs. Blue, yellow, red-orange, green, and brown-black.

Catalog: A52290 / Accession: 18046

Textiles: Belt/Band



Current KE EMu Display Name: Belt

Current KE EMu Object Description: One half feather ornamental belt

Location: Featherwork Drawer 10

Condition/Conservation: stable, some feather

Optional Description: Fragment of feather covered belt or headband

loss, some stains, old repair, evidence of use

Notable Characteristics: Seamed decorative textile, one edge shows possible looped selvage finish, appears to have been used/worn and repaired,

Textile Base

Description of Textile Base: Half of belt or head band, warp/weft uncertain, one selvage could be warp, not balanced (either warp or weft faced), repeating square imagery, feathers trimmed to create clean edges to squares, multiple selvages

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 32, 9

Vertical Maximum CM: 12, 6

Horizontal Thread Count: 22

Vertical Thread Count: 21

Horizontal Spin/Ply: ?, Z/S(2)

Vertical Spin/Ply: ?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S(1)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and trimmed orange, yellow, black, white

Catalog: A52292 / Accession: 18046

Textiles: Belt/Band



Current KE EMu Display Name: Headband (?)

Current KE EMu Object Description: Feather covered headband (?)

Location: Exhibit 3CM27

Condition/Conservation: stable; no notable loss, stains, accretions, or repairs

Optional Description: Feather

covered ornamental belt or headband

Notable Characteristics: Three sections of clipped white and black feathers embedded in larger areas of color, heavier yarn ties at both ends and at left edge of feathered area

Textile Base

Description of Textile Base: Cotton

Materials in Textile Base: Cotton

Weave: Balanced weave, 1X1

Horizontal Maximum CM: 74

Vertical Maximum CM: 11

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: Many feathers clipped, small 3-4 cm, yellow, orange, blue, white, and black

Catalog: A54994 / Accession: 20517

Textiles: Belt/Band



Current KE EMu Display Name:

Current KE EMu Object Description: Textile, woven fragments strung together, feathered

Location: Featherwork Drawer 11

Condition/Conservation: stable; most

Optional Description: Two sections, possible
belt, tied togetherfeathers gone; innate accretions;
cuts/tears;

Notable Characteristics: Extremely tiny iridescent blue feathers, tied in bunches, sewn extremely close together to overlap, two sections tied together by two sets of knotted threads/yarns

Textile Base

Description of Textile Base: Possible belt sections, warp faced, one edge of both pieces is weft selvage, much white accretion on surface

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM:

Vertical Maximum CM:

Larger section: 18; Smaller section: 10

Larger section: 6; Smaller section: 5

Horizontal Thread Count: 26+

Vertical Thread Count: 10

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2)

A.T. Material: Cotton

A.T. Spin/Ply: Z/S(2)

Other Threads Description: Ties

Other Threads Material: Cotton

Other Threads Spin/Ply: Mixed, S/Z(4-5), S(2), Z(2), S/S(10-12)?

Feather Description: very small 1cm iridescent blue, very bright, tied in bunches to f.s.

Catalog: A54995 / Accession: 20517

Textiles: Belt/Band



Current KE EMu Display Name: Band

Current KE EMu Object Description: Feathered band

Location: Featherwork Drawer 11

Condition/Conservation: stable; no
notable loss, stains, accretions, or
repairsOptional Description: Black and white
feathered bandNotable Characteristics: Slender decorative textile object with bands of black and white
feathers, very unusual artifact, purpose unknown**Textile Base**

Description of Textile Base: Balanced weave, tightly stitched along center back

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 1.5-2

Vertical Maximum CM: 39

Horizontal Thread Count: ?

Vertical Thread Count: ?

Horizontal Spin/Ply: ?, Z/S(2)

Vertical Spin/Ply: ?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2)

A.T. Material: Cotton

A.T. Spin/Ply: Z/S(2)

Other Threads Description: Stitching

Other Threads Material: Cotton

Other Threads Spin/Ply: Unusual,
appears to be Z(1) and braidedFeather Description: Black (trimmed to 1.5-2cm) and white (trimmed to 1cm) alternating
bands, 29 rows/bands

Larger Textiles: Mummy Face/Tunics/Tabards

Catalog: A52268 / Accession: 18046

Textiles: Mummy Face



Current KE EMu Display Name: Mummy face

Current KE EMu Object Description: Featherwork mummy face

Location: Exhibit 3CM27

Condition/Conservation: stable; no

Optional Description: Featherwork mummy face

notable loss, stains, accretions, or repairs

Notable Characteristics: Image of face

Textile Base

Description of Textile Base: Cotton, balanced weave, 1X1?

Materials in Textile Base: Cotton

Weave: Balanced weave, 1X1?

Horizontal Maximum CM: 24.6

Vertical Maximum CM: 20.5

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Unknown

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: Due to positioning in case, unable to measure individual feathers. Generally seem small around 3-5 cm. Some clipped for design. Pale orange, light blue, white, and black

Catalog: A52272 / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: One half of feather covered poncho

Location: Featherwork Drawer 07

Condition/Conservation: stable; missing

Optional Description: One half full-size
tabard, sun burst imagery

some feathers; some stains and tears;
innate accretions (fur)

Notable Characteristics: Some disintegration, but step imagery near neck region clearly visible, clump of fibrous material - possible animal fur/hair

Textile Base

Description of Textile Base: Warp faced, three selvages present, all cotton, outer edge length (warp) folded

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 40

Vertical Maximum CM: 150

Horizontal Thread Count: 11

Vertical Thread Count: 12-18

Horizontal Spin/Ply: Weft, spin/ply
unknown, X3

Vertical Spin/Ply: Warp, Z/S(2) very
tight and slender

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description: Corner ties

Other Threads Material: Cotton

Other Threads Spin/Ply: S/Z(4-6)

Feather Description: Orange, yellow, blue – all small 3-5 cm

Catalog: A52295a-e / Accession: 18046

Textiles: Garment/Tunic



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Front face of feather covered poncho, white, green

Location: Exhibit 3CM27

Condition/Conservation: stable; no notable

Optional Description: Front face of feather loss, stains, accretions, or repairs

covered poncho (reconstructed from five sections)

Notable Characteristics: Face image, many colors and types of feathers, catalog entry suggests "Inca"

Textile Base

Description of Textile Base: Appears to be cotton, unable to view closely due to attachment to wall

Materials in Textile Base: Appears to be cotton

Weave: Appears to be 1X2, paired warp, balanced weave, unable to view closely due to attachment to wall

Horizontal Maximum CM: 80.5
(reconstructed whole)

Vertical Maximum CM: 75.5
(reconstructed whole)

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Appears to be cotton

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: Due to positioning in case, unable to measure individual feathers.

Generally seem small around 3-5 cm. Large variety of colors, including white, green, yellow, red-orange, brown-black, blue, multi-color in two varieties

Catalog: A52296a / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Oversize

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: * Section of full feather tabard

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one warp selvage, small portion of weft selvage where f.s. wrap edge, likely bottom edge of one side of tabard

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 33

Vertical Maximum CM: 39.5

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange, rows of very short 2-3cm blue and rows of medium 4cm blue

Catalog: A52296b / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Oversize

Condition/Conservation: stable; some loss

Optional Description: Section of full feather tabard *

of feathers; presence of stains, tears, and cut marks

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one weft selvage, small portion unfeathered may be shoulder region, some staining, dark (foreign?) thread

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 12.5

Vertical Maximum CM: 16

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange

Catalog: A52296c / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 10

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: Section of full feather tabard *

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one weft selvage, portion unfeathered may be shoulder region, some staining, dark (foreign?) thread

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 37

Vertical Maximum CM: 31

Horizontal Thread Count: 12

Vertical Thread Count: 6

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange

Catalog: A52296d / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 10

Condition/Conservation: stable; some

Optional Description: Section of full feather
tabard *loss of feathers; presence of stains, tears,
and cut marksNotable Characteristics: Tabard Puzzle section, cut section of what may be an entire
feathered tabard * *Appears to be complete, center section not missing***Textile Base**

Description of Textile Base: Warp faced, one weft selvage

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 38

Vertical Maximum CM: 29.5

Horizontal Thread Count: 13

Vertical Thread Count: 5

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange

Catalog: A52296e / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 10

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: Section of full feather tabard *

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing***Textile Base**

Description of Textile Base: Warp faced, one weft selvage, one warp selvage - ~9cm of doubled weft yarns, corner tie, f.s. wrap/tie around to back at weft selvage, likely bottom edge of one side of tabard, some staining, dark (foreign?) threads

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 39

Vertical Maximum CM: 28

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description: Corner ties

Other Threads Material: Cotton

Other Threads Spin/Ply: Z/S(2)

Feather Description: very small and clipped as needed 3 cm orange, rows of very short 2-3cm blue and rows of medium 4cm blue

Catalog: A52296f / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Oversize

Condition/Conservation: stable; some loss

Optional Description: Section of full feather of feathers; presence of stains, tears, and tabard * cut marks

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one warp selvage

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 32

Vertical Maximum CM: 18

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: rows of very short 2-3cm blue and rows of medium 4cm blue

Catalog: A52296g / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 10

Condition/Conservation: stable; some

Optional Description: Section of full feather
tabard *loss of feathers; presence of stains,
tears, and cut marksNotable Characteristics: Tabard Puzzle section, cut section of what may be an entire
feathered tabard * *Appears to be complete, center section not missing***Textile Base**Description of Textile Base: Warp faced, one weft selvage where f.s. wrap edge, likely
near bottom of one side of tabard due to blue feather band, dark (foreign?) thread

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 39

Vertical Maximum CM: 27

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange,
medium 5-6cm blue

Catalog: A52296h / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 11

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: Section of full feather tabard *

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing***Textile Base**

Description of Textile Base: Warp faced, one weft selvage, feathers overhang cut region at bottom, two torn edges

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 39

Vertical Maximum CM: 29

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, 2 cm yellow, 3 cm orange

Catalog: A52296i / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Featherwork Drawer 11

Condition/Conservation: stable; some

Optional Description: Section of full feather

loss of feathers; presence of stains,

tabard *

tears, and cut marks

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard* *Appears to be complete, center section not missing***Textile Base**

Description of Textile Base: Warp faced, no selvages, all edges cut or torn, f.s. very neat/almost invisible on reverse

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 33

Vertical Maximum CM: 31

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2), very loose ply

A.T. Material: Cotton, multicolor/bichrome

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small and clipped as needed, yellow, orange (all 1.5-3cm)

Catalog: A52296j / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Oversize

Condition/Conservation: stable; some

Optional Description: Section of full feather
tabard *

loss of feathers; presence of stains, tears,
and cut marks

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire
feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one weft selvage, likely near bottom of one side
of tabard due to blue feather band

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 39

Vertical Maximum CM: 32

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: ery small and clipped as needed, 2 cm yellow, 3 cm orange, medium
5-6cm blue

Catalog: A52296k / Accession: 18046

Textiles: Tabard Section



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Full feather poncho, center section missing *

Location: Oversize

Condition/Conservation: stable; some loss

Optional Description: Section of full feather tabard *

of feathers; presence of stains, tears, and cut marks

Notable Characteristics: Tabard Puzzle section, cut section of what may be an entire feathered tabard * *Appears to be complete, center section not missing*

Textile Base

Description of Textile Base: Warp faced, one warp selvage

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 30

Vertical Maximum CM: 17

Horizontal Thread Count:

Vertical Thread Count:

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply:

A.T. Material: Cotton

A.T. Spin/Ply:

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: rows of very short 2-3cm blue and rows of medium 4cm blue

*Miniature Textiles***Catalog: A52281 / Accession: 18046**

Textiles: Miniature Textile



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Complete symbolic feather covered poncho

Location: Exhibit 3CM10

Condition/Conservation: stable; no

Optional Description: Miniature textile,
feather coverednotable loss, stains, accretions, or repairs;
may have been cut

Notable Characteristics: Possible female imagery = assumed miniature dress, assumed front = stepped design; assumed back = 5 rows, top row blue, followed by red-orange, green, peach-cream, and green

Textile Base

Description of Textile Base: Cotton

Materials in Textile Base: Cotton

Weave: Balanced weave, 1X1, very
open/loose

Horizontal Maximum CM: 47.5

Vertical Maximum CM: 25

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: front=small/clipped 3-4cm red-orange and greens, back=medium 4-5cm blues and red-orange, medium/long 6-9 cm greens, cream-peach

Catalog: A52284 / Accession: 18046

Textiles: Miniature Textile



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Feather covered symbolic poncho

Location: Featherwork Drawer 09

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: Fragment, miniature textile, feather covered

Notable Characteristics: Miniature textile, sunburst/oval design = assumed male design/miniature tunic, 2 orange feathers as "neckline"

Textile Base

Description of Textile Base: Miniature textile, generally balanced weave, two weft selvages, two folded/cut edges, weaving and feather attach is inconsistent (perhaps apprentice work?)

Materials in Textile Base: Cotton

Weave: 1X1, w/ some areas of 1X2

Horizontal Maximum CM: 25

Vertical Maximum CM: 47

Horizontal Thread Count: 8

Vertical Thread Count: 8

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2-3)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 3-4 cm iridescent blue, 2 cm orange, 2-3 cm green, 2.5-4 cm multi-reddish/blue/yellow, 4.5-5 cm multi-blue/brown

Catalog: A52285 / Accession: 18046

Textiles: Miniature Textile



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Poorly preserved feather symbolic poncho

Location: Oversize

Condition/Conservation: stable; many feathers

Optional Description: Fragment,
miniature textile, feather coveredmissing; presence of stains, tears, and cut
marksNotable Characteristics: Miniature textile, sunburst/oval design = assumed male design/
miniature tunic, heavy f.s.**Textile Base**Description of Textile Base: Miniature textile, balanced weave, bichrome/barber pole
effect on yarns, two weft selvages folded to front, torn/cut warp edges

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 33

Vertical Maximum CM: 47

Horizontal Thread Count: 7

Vertical Thread Count: 7

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(3)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: 4-5cm green, 2cm orange, 2cm dk blue on sunburst half, 6cm very
deteriorated multi-blue on other half

Catalog: A52291 / Accession: 18046

Textiles: Miniature Textile



Current KE EMu Display Name: Poncho

Current KE EMu Object Description: Feather covered symbolic (miniature) poncho

Location: Featherwork Drawer 10

Condition/Conservation: stable; some loss of feathers; presence of stains, tears, and cut marks

Optional Description: Miniature textile, feather covered

Notable Characteristics: Weave is very open, sunburst/oval design = assumed male design/ miniature tunic, cut slit and 1 orange feather as "neckline," f.s. appear "messy" and inconsistent on reverse (perhaps apprentice work?)

Textile Base

Description of Textile Base: Miniature textile, balanced weave, very open/loose weave, all edges cut or folded, warp vs weft uncertain

Materials in Textile Base: Cotton

Weave: 2X1

Horizontal Maximum CM: 18

Vertical Maximum CM: 43

Horizontal Thread Count: 11

Vertical Thread Count: 12

Horizontal Spin/Ply: Weft?, Z(1) X2

Vertical Spin/Ply: Warp?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2), loose

A.T. Material: Cotton

A.T. Spin/Ply: Z/S(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2-3 cm orange, 2-3 cm green, 3-4 cm rainbow blue/yellow

Catalog: A52294a / Accession: 18046

Textiles: Miniature Textile



Current KE EMu Display Name: Coca bag

Current KE EMu Object Description: Feather covered coca bag *

Location: Exhibit 3CM27

Condition/Conservation: stable; some loss of feathers otherwise no notable loss, stains, accretions, or repairs

Optional Description: Miniature textile, feather covered *

Notable Characteristics: * *Not a coca bag, but miniature textile* / Front = sunburst/oval design = assumed male design/ miniature tunic; back=mixed colors rows

Textile Base

Description of Textile Base: Cotton

Materials in Textile Base: Cotton

Weave: Balanced weave, 2X1, very open/loose

Horizontal Maximum CM: 14.25

Vertical Maximum CM: 30

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: Front= small 3-4 cm green, brown-black, red-orange, and blue; back=small 3-4 cm multi-color (blue/brown/orange/yellow)

Catalog: A52294b / Accession: 18046

Textiles: Miniature Textile



Current KE EMu Display Name: Coca bag

Current KE EMu Object Description: Feather covered coca bag *

Location: Featherwork Drawer 10

Condition/Conservation: stable; many

Optional Description: Miniature textile, feather covered * feathers gone; presence of stains and tears

Notable Characteristics: * *Not a coca bag, but miniature textile* / Very loose weave, mixed thick and thin yarns, bichrome yarns, feathers too broken to determine pattern

Textile Base

Description of Textile Base: Miniature textile (* MPM database says coca bag), balanced weave, one selvage, remaining edges folded, warp vs weft uncertain, single sewing stitch holds each edge, very open/loose weave, mixed thin and thick yarns

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 13

Vertical Maximum CM: 13

Horizontal Thread Count: 4

Vertical Thread Count: 7

Horizontal Spin/Ply: Warp?, Z/S(2)

Vertical Spin/Ply: Weft?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2), loosely Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: Z/S(2)

Other Threads Description: Sewing

Other Threads Material: Cotton

Other Threads Spin/Ply: Z/S(2)

Feather Description: 3.5-9 cm green-multi, 2.5-5cm dark/mixed blues, 2.5-4 cm orange-yellows

Catalog: A55000 / Accession: 20517

Textiles: Miniature Textile



Current KE EMu Display Name:

Current KE EMu Object Description: Textile, woven miniature poncho with feathers

Location: Featherwork Drawer 11

Condition/Conservation: stable; no notable

Optional Description: Miniature textile, feather covered

loss, stains, accretions, or repairs

Notable Characteristics: Miniature textile, sunburst/oval design = assumed male design/miniature tunic

Textile Base

Description of Textile Base: Balanced weave, very loose weave, warp/weft uncertain, folded and stitched most edges

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 13

Vertical Maximum CM: 14

Horizontal Thread Count: 6

Vertical Thread Count: 6

Horizontal Spin/Ply: ?, Z/S(2)

Vertical Spin/Ply: ?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description: Stitching

Other Threads Material: Cotton

Other Threads Spin/Ply: Z/S(2)

Feather Description: front=small 3-4cm multi-orange/green/yellow/blue, medium 3-4cm iridescent blue, back=medium 4-5cm multi-orange/green/yellow/blue

Catalog: A55004 / Accession: 20517

Textiles: Miniature Textile



Current KE EMu Display Name: Coca bag

Current KE EMu Object Description: Feather covered coca bag *

Location: Exhibit 3CM27

Condition/Conservation: stable; no notable

Optional Description: Miniature textile,
feather covered *

loss, stains, accretions, or repairs

Notable Characteristics: * *Not a coca bag, but miniature textile* / Both sides appear to be similar imagery, stripes, two red-orange, one blue, two red-orange, gender imagery not certain

Textile Base

Description of Textile Base: Balanced weave, cotton, more carefully woven than many of the other miniature textiles in the collection

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 17

Vertical Maximum CM: 24

Horizontal Thread Count: Unknown

Vertical Thread Count: Unknown

Horizontal Spin/Ply: Unknown

Vertical Spin/Ply: Unknown

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Unknown

F.S. Spin/Ply: Unknown

A.T. Material: Unknown

A.T. Spin/Ply: Unknown

Other Threads Description: Unknown

Other Threads Material: Unknown

Other Threads Spin/Ply: Unknown

Feather Description: Both sides = small 3-5 cm red-orange and blue

*Fragments/Double Cloth?***Catalog: A52287 / Accession: 18046** Textiles: Fragment/Double Cloth?

Current KE EMu Display Name: Feather covered piece

Current KE EMu Object Description: Feather covered piece, white

Location: Featherwork Drawer 10

Condition/Conservation: stable; most

Optional Description: Fragment of feather covered garment

feathers present; some loss, stains, and cut marks

Notable Characteristics: Shaped garment fragment, feather string composed of one yarn, feather strings overlap edges where folded, densely covered in small white feathers, two layers of cloth in some areas, some rot

Textile Base

Description of Textile Base: Curved textile piece, at least two textiles stitched together (larger section = balanced 1X1, smaller = warp?-faced, very tight fine ply and weave), two f.s. at edge stitched in curve, one selvage, folded and cut areas to create curve, small feathers close together

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 34

Vertical Maximum CM: 19

Horizontal Thread Count: 36, 16

Vertical Thread Count: 15, 13

Horizontal Spin/Ply: ?, all Z/S(2)

Vertical Spin/Ply: ?, all Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2), only one string

A.T. Material: Cotton

A.T. Spin/Ply: S(1), X2

Other Threads Description: Ties, sewing

Other Threads Material: Cotton

Other Threads Spin/Ply: tie=S/Z(2)/S(6);
sewing=S(1)X3

Feather Description: Very small 2 cm cream white, discolored, broken

Catalog: A52288 / Accession: 18046 Textiles: Fragment/Double Cloth?



Current KE EMu Display Name: Feather covered piece

Current KE EMu Object Description: Feather covered piece, white

Location: Oversize

Condition/Conservation: stable; most

Optional Description: Fragment of feather
covered garment, white

feathers present; some loss, stains, and cut
marks

Notable Characteristics: Shaped garment fragment, feather strings overlap edges where folded, densely covered in small white feathers, two layers of cloth in some areas, some rot

Textile Base

Description of Textile Base: Folded and cut areas create curved textile piece, at least two textiles stitched together (larger section = balanced 1X1, smaller = warp (?) dominant, very tight fine ply and weave), selvages uncertain due to folding, small feathers close together

Materials in Textile Base: Cotton

Weave: 1X1 - balanced, 1X1 - warp
(weft?) dominant

Horizontal Maximum CM: 30

Vertical Maximum CM: 34.5

Horizontal Thread Count: 11

Vertical Thread Count: 16

Horizontal Spin/Ply: ?, all Z/S(2)

Vertical Spin/Ply: ?, all Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(3)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(3)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Very small 2 cm cream white, discolored, broken

*Fragments/Possibly Garment Sections***Catalog: A52269a / Accession: 18046****Textiles: Fragment**

Current KE EMu Display Name: Garment

Current KE EMu Object Description: Fragments of feather covered garment

Location: Featherwork Drawer 06

Condition/Conservation: stable; most

Optional Description: Fragment of feather covered garment

feathers gone; presence of stains, tears, and cut marks

Notable Characteristics:

Textile Base

Description of Textile Base: Balanced weave, paired weft, single warp, folded doubled material, stitched added section, feathers gone

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 32

Vertical Maximum CM: 19.5

Horizontal Thread Count: 12

Vertical Thread Count: 14

Horizontal Spin/Ply: Weft, Z(1) X2

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2)X2

A.T. Material: ?

A.T. Spin/Ply: ?

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Broken remnants of dull/dark olive green

Catalog: A52269b / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Fragments of feather covered garment

Location: Featherwork Drawer 06

Condition/Conservation: stable; most

Optional Description: Fragment of feather covered garment

feathers gone; presence of stains, tears, and cut marks

Notable Characteristics:

Textile Base

Description of Textile Base: Balanced weave, paired weft, single warp, folded doubled material, stitched added section, feathers gone

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 13.5

Vertical Maximum CM: 7

Horizontal Thread Count: 12

Vertical Thread Count: 14

Horizontal Spin/Ply: Weft, Z(1) X2

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2)X2

A.T. Material: ?

A.T. Spin/Ply: ?

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Broken remnants of dull/dark olive green

Catalog: A52270 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Fragment of feather covered garment

Location: Featherwork Drawer 08

Condition/Conservation: stable; some loss of

Optional Description: Fragment of feather covered garment

feathers; presence of stains, tears, and cut marks

Notable Characteristics: Feather strings attached w/ helter-skelter stitching on reverse

Textile Base

Description of Textile Base: Warp faced, paired weft, single warp, portions of two weft selvages present, messy stitching on back

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 36

Vertical Maximum CM: 74

Horizontal Thread Count: 12

Vertical Thread Count: 16

Horizontal Spin/Ply: Weft, Z/S(2) X2

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Orange (1.75-3cm), brown (1.5-4cm)

Catalog: A52273 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Section of feather covered garment

Location: Featherwork Drawer 08

Condition/Conservation: stable; many

Optional Description: Fragment of feather covered garment

feathers missing; presence of stains, tears, and cut marks

Notable Characteristics: Many feathers disintegrated or missing, foreign thread

Textile Base

Description of Textile Base: No selvage, may be double weft/single warp (based on feather alignment), warp (or weft?) dominant, foreign threads near edges, lots broken/missing feathers, lots staining

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 33

Vertical Maximum CM: 16

Horizontal Thread Count: 14

Vertical Thread Count: 14

Horizontal Spin/Ply: Weft?, Z/S(2) very tight and slender, X2

Vertical Spin/Ply: Warp?, Z/S(2) very tight and slender

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2-3.5 cm orange, iridescent teal-blue

Catalog: A52274 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Small fragment of feather garment

Location: Featherwork Drawer 08

Condition/Conservation: stable; some loss of

Optional Description: Fragment of feather covered garment

feathers; presence of stains, tears, and cut marks; innate accretion

Notable Characteristics: One selvage, reverse shows some irregular thread-color stripes, foreign thread, clump of sandy dirt on back

Textile Base

Description of Textile Base: Warp faced, some striping in weave

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 15

Vertical Maximum CM: 21

Horizontal Thread Count: 10

Vertical Thread Count: 6

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton, dk brown

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Faded, some orange, some yellow (all 2-3cm)

Catalog: A52275 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Feathered cloth

Current KE EMu Object Description: Feather covered piece of cloth

Location: Featherwork Drawer 08

Condition/Conservation: stable; many

Optional Description: Fragment of
feather covered garmentfeathers missing; presence of many stains,
tears, and cut marksNotable Characteristics: One selvage, extensive staining, torn or rotted edges, many
feathers disintegrated or missing**Textile Base**Description of Textile Base: Balanced weave, one selvage, large areas of staining
(possible rot)

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 49

Vertical Maximum CM: 31

Horizontal Thread Count: 7-8

Vertical Thread Count: 6

Horizontal Spin/Ply: Warp, Z/S(2-3)

Vertical Spin/Ply: Weft, Z/S(2-3)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2.5-4 cm iridescent blue, small 2.5-4 cm orange - 1/3 or more
broken

Catalog: A52276 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Feather covered fragment

Current KE EMu Object Description: Feather covered fragment, white

Location: Featherwork Drawer 08

Condition/Conservation: stable; many

Optional Description: Fragment of
feather covered garmentfeathers missing; presence of stains, tears,
and cut marksNotable Characteristics: Curved region across one corner with small feather remnants,
pattern visible, 2-3 rows bluish f.s. stitched in curve (see image)**Textile Base**Description of Textile Base: One hidden/folded selvage, warp vs weft unclear, warp (?)
dominant

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 33.5

Vertical Maximum CM: 32

Horizontal Thread Count: 16

Vertical Thread Count: 9

Horizontal Spin/Ply: Weft?, Z/S(2)

Vertical Spin/Ply: Warp?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S(1)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2-2.5 cm cream (rows very close to overlap), broken orange
(rows very close), broken blue-gray

Catalog: A52277 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Feather covered piece

Current KE EMu Object Description: Feather covered piece, yellow and blue

Location: Featherwork Drawer 08

Condition/Conservation: stable; many

Optional Description: Fragment of
feather covered garmentfeathers missing; presence of stains, tears,
and cut marks

Notable Characteristics: Plaid of brown and tan cottons

Textile BaseDescription of Textile Base: Balanced weave, plaid of brown and tan cottons, broken
feathers, pattern somewhat visible, some staining and possible rot, f.s. neatly attached

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 49

Vertical Maximum CM: 30

Horizontal Thread Count: 7

Vertical Thread Count: 10

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 3 cm blue gray, small 2.5-4 yellow, very small 1-1.5 cm
iridescent blue, small 2.5-3 cm dark brown - all broken

Catalog: A52278 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Feather covered piece

Current KE EMu Object Description: Feather covered piece, white

Location: Featherwork Drawer 08

Condition/Conservation: stable; many

Optional Description: Fragment of feather covered garment

feathers missing; presence of stains, tears, and cut marks

Notable Characteristics:

Textile Base

Description of Textile Base: Balanced with warp faced selvage area, one (plus possible small portion of second) selvage, thick weft (some paired), thin warp, lots of staining

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 32

Vertical Maximum CM: 40

Horizontal Thread Count: 6

Vertical Thread Count: 12

Horizontal Spin/Ply: Weft, Z/S(2), some X2

Vertical Spin/Ply: Warp, S(1)?

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Very faded/stained, yellow or cream?

Catalog: A52279 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Feather covered piece

Current KE EMu Object Description: Fragment of feather covered piece, yellow and oran

Location: Oversize

Condition/Conservation: stable; many
feathers missing; presence of stains,
tears, and cut marksOptional Description: Fragment of feather
covered garment

Notable Characteristics: Many feathers disintegrated or missing

Textile BaseDescription of Textile Base: Balanced weave, no selvages, all edges appear torn not cut,
bichrome cotton weave

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 11

Vertical Maximum CM: 29

Horizontal Thread Count: 29

Vertical Thread Count: 9

Horizontal Spin/Ply: ?,Z/S(2)

Vertical Spin/Ply: ?,Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: Z/S(2) on orange
feathers,

some S(1) on yellow feathers

A.T. Spin/Ply: Z/S(2)

A.T. Material: Cotton

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: orange, yellow, mostly broken or missing

Catalog: A52280 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Fragment of feather covered garment

Location: Featherwork Drawer 09

Condition/Conservation: stable; many

Optional Description: Fragment of feather covered garment

feathers missing; presence of stains, tears, and cut marks

Notable Characteristics: Block plaid weave of brown and tan cottons

Textile Base

Description of Textile Base: Balanced weave, one selvage, block plaid weave of brown and tan cottons, foreign threads

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 48

Vertical Maximum CM: 18

Horizontal Thread Count: 8

Vertical Thread Count: 8

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2-3 cm yellow, iridescent blue, blue-gray

Catalog: A52282 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Fragment of feather covered garment

Location: Featherwork Drawer 09

Condition/Conservation: stable; many

Optional Description: Fragment of feather covered garment

feathers missing; presence of stains, tears, and cut marks; old repair

Notable Characteristics: Many feathers disintegrated or missing, much rot, feather strings jumbled and some not attached (may not have been part of this piece?), darning repairs

Textile Base

Description of Textile Base: No selvages, fragments (one large, one small), textile is patched (darned), warp (?) dominant, may be paired weft

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 44-49, 9.5

Vertical Maximum CM: 24, 7

Horizontal Thread Count: 11

Vertical Thread Count: 16

Horizontal Spin/Ply: Weft?, Z(1), X2

Vertical Spin/Ply: Warp?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: small 2,3,4 cm jumbled yellows, browns, orange, multi-blue

Catalog: A52283 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Feather covered garment

Location: Featherwork Drawer 09

Condition/Conservation: stable; most feathers missing; presence of stains, tears, and cut marks; old repair

Optional Description: Fragment of feather covered garment

Notable Characteristics: Large feathers nearly all broken or disintegrated, plaid base, repaired before reuse

Textile Base

Description of Textile Base: Balanced weave, one selvage, double-stripe plaid weave of brown and tan cottons, textile is patched (darned), perhaps repurposed, large feathers almost all gone except shafts

Materials in Textile Base: Cotton

Weave: 1X1, with some exceptions

Horizontal Maximum CM: 32

Vertical Maximum CM: 48

Horizontal Thread Count: 14

Vertical Thread Count: 8

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(4), S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(3)

Other Threads Description: Repair

Other Threads Material: Cotton

Other Threads Spin/Ply: S/Z(3)

Feather Description: long 7-14 cm blue (under yellowish) Macaw, mostly gone except shafts

Catalog: A52289 / Accession: 18046

Textiles: Fragment



Current KE EMu Display Name: Garment

Current KE EMu Object Description: Feather covered garment, poor preservation

Location: Oversize

Condition/Conservation: stable; many

Optional Description: Fragment of feather covered garment, pattern of blue, orange, yellow

feathers missing; presence of stains, tears, and cut marks

Notable Characteristics: Plaid of brown and tan, pattern visible, broken feathers, f.s. neatly attached except behind square patterns where it cuts across areas

Textile Base

Description of Textile Base: Balanced weave, one weft selvage, plaid of brown and tan cottons, some staining and possible rot

Materials in Textile Base: Cotton

Weave: 1X1

Horizontal Maximum CM: 32

Vertical Maximum CM: 48.5

Horizontal Thread Count: 8

Vertical Thread Count: 7

Horizontal Spin/Ply: Weft, Z/S(2)

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Very small 2-3cm orange, turquoise blue, yellow/orange, many broken

Catalog: A54998 / Accession: 20517

Textiles: Fragment



Current KE EMu Display Name:

Current KE EMu Object Description: Textile, woven fragment, feathered

Location: Featherwork Drawer 11

Condition/Conservation: stable; many

Optional Description: Textile, woven
fragment, orange feathered

feathers missing; presence of stains, tears,
and cut marks

Notable Characteristics:

Textile Base

Description of Textile Base: Warp dominant, one weft selvage, other edges
torn/deteriorated, very messy stitching in back

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: 23

Vertical Maximum CM: 28

Horizontal Thread Count: 22

Vertical Thread Count: 5

Horizontal Spin/Ply: Weft, Z(1)? X2

Vertical Spin/Ply: Warp, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: S/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: very small 1-2cm yellow, small 2-3.75cm orange w/ khaki

Catalog: A54999 / Accession: 20517

Textiles: Fragment



Current KE EMu Display Name:

Current KE EMu Object Description: Textile, woven fragment, feathered

Location: Featherwork Drawer 11

Condition/Conservation: stable; some

Optional Description: Fragment of feather
covered garmentfeathers missing; presence of stains,
tears, and cut marksNotable Characteristics: Garment fragment, folded edges, densely covered in small white
feathers, some rot**Textile Base**Description of Textile Base: Balanced, no selvages, very thick textile may be double
cloth (?) or two layers of cloth

Materials in Textile Base: Cotton

Weave: 1X2

Horizontal Maximum CM: ?

Vertical Maximum CM: ?

Horizontal Thread Count: ?

Vertical Thread Count: ?

Horizontal Spin/Ply: ?, Z(1)? X2

Vertical Spin/Ply: ?, Z/S(2)

Feather Strings (F.S.) /Attachment Threads (A.T.) /Other Threads or Yarns

F.S. Material: Cotton

F.S. Spin/Ply: S/Z(2)

A.T. Material: Cotton

A.T. Spin/Ply: Z/S(2)/Z(2)

Other Threads Description:

Other Threads Material:

Other Threads Spin/Ply:

Feather Description: Very small 2 cm cream white, remnants of yellow

Non-Textile Ornamental Devices

Fan: Braid Bundle

Catalog: A52208 / Accession: 18046

General Shape: Braid Bundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;

Optional Description: Braided orange and yellow

stable; no notable loss, stains, accretions, or repairs

feather ornamental device

Notable Characteristics: Small, limp, looks quickly made, almost "last minute. Appears to be a bundle of feather braids.

Height CM: 24

Width CM: 15

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: very light

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber - very fibrous

Braids Notes: loose braiding, braiding all different lengths, loose bundle

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - one long white, fuzzy yarn

Middle Rows Spin/Ply: Z/S(9-10)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Maybe

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish: Very loosely wrapped, not knotted

Base Flat/Rounded: Rounded

Handle Other:

Handle Other Description:

Feathers

Feather Description: varying between 6-8-12 cm orange/yellow feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52211 / Accession: 18046

General Shape: Braid Bundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;
stable; no notable loss, stains, accretions, or repairsOptional Description: Twist-construction
peach/cream feather tied in bundleNotable Characteristics: Small, limp, looks quickly made - would not have stood upright. Appears to be a
bundle of feather braids.

Height CM: 17

Width CM: 9

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes:

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - two-tone fuzzy
(soiled), bundle tied together in one spot

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish:

Base Flat/Rounded:

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 6 cm peach/cream feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52235 / Accession: 18046

General Shape: BraidBundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 04

Condition/Conservation Notes: Frozen 11/2012;

Optional Description: Braided peach and cream feather fan or ornamental device

stable; no notable loss, stains, accretions, or repairs

Notable Characteristics: Somewhat limp - would not have stood upright. Appears to be a bundle of feather braids.

Height CM: 27

Width CM: 11

Clear Front/Back?: No

If yes, describe: Feathers face in all around

Handle/Base Descriptions

Braids Color: medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - slender, tight

Braids Notes: plant fiber - twist plus braid - braid 4 cm, twist 3-5cm, unbraided ~7 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - brown (dyed?) - one continuous yarn including bottom tie off

Basting Spin/Ply: S/Z(7)

Middle Rows

Middle Rows Count: 2

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - short

End String Spin/Ply:

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Rounded

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 13 cm peach/cream-white (white shafts) feathers, body, fuzz

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52241 / Accession: 18046

General Shape: BraidBundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided

green/orange/blue/brown feather fan or ornamental device

Notable Characteristics: Limp, would not have stood upright. Appears to be a bundle of feather braids.

Height CM: 17

Width CM: 18

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~5 cm, unbraided ~12 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 1

Middle Rows Material: Cotton -tied/wrapped - newer post-retrieval threads?

Middle Rows Spin/Ply: Z/S(3-4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - loop

End String Spin/Ply: Z/S(3-4)

Base Construction

Tip Finish: open, twisted on self, tied loosely near tip

Base Flat/Rounded: Loose

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 6 cm green/orange/blue/brown feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

*Fan in Progress (Basting Yarn)***Catalog:** A52212 / **Accession:** 18046

General Shape: Fan In Progress



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;

Optional Description: Braided peach and cream feather fan or ornamental device - not completed

stable; no notable loss, stains, accretions, or repairs

Notable Characteristics: Unfinished fan in progress, basting stitch, no couching stitches

Height CM: 15

Width CM: 13

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~7 cm, unbraid ~8 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - first "hidden" row begun and not finished

Basting Spin/Ply: Z/S(6-8)

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 9-10 cm peach/cream feathers, fuzzy

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A52265 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, orange

Location: Featherwork Drawer 06

Condition/Conservation Notes: stable; no notable

Optional Description: Braided orange/yellow feather loss, stains, accretions, or repairs
fan or ornamental device

Notable Characteristics: Possibly originally on stick (see #52250), possible fan in progress

Height CM: 17

Width CM: 14

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~6 cm, unbraided ~10 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 1

Middle Rows Material: Cotton - one continuous yarn, one row plus end tie-off

Middle Rows Spin/Ply: Z/S(4-5)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - short

End String Spin/Ply: Z/S(5-6)

Base Construction

Base Flat/Rounded: Rounded

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 4-5 cm orange/yellow, some fuzz, body

Feathers Stitched Through?: Yes

Feather Stitch Material: Cotton - cream, very slender, tied/looped around each feather
Feather Stitch Spin/Ply: S/Z(3)

*Fan Shapes***Catalog: A52185 / Accession: 18046**

General Shape: Fan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Green feather ornament

Location: Exhibit 3CM27

Optional Description: Braided multi-green feather fan or ornamental device

Notable Characteristics: Most couching threads gone. Originally couching stitched through (indents remain) very obvious, but most stitches now gone. Bent shape most likely post-retrieval. Added braids possibly post retrieval.

Height CM: 30

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes:

Basting/Top Row

Basting Material: Cotton

Middle Rows

Middle Rows Material: UNKNOWN - dark bits only, most threads missing

Bottom Rows

Bottom Rows Material: UNKNOWN - medium

End String

End String Material:

Base Construction

Tip Finish: splayed open

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 11 cm multi-greens with slight yellows, browns; some light and some dark brown shafts

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: Frozen 05/2013; stable; couching stitches gone, otherwise no notable loss, stains, accretions, or repairs

Width CM: 17

If yes, describe:

Braids Color: medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: Yes

Basting Spin/Ply: S/Z(3)

Middle Rows Count: ~8

Middle Rows Spin/Ply: UNKNOWN

Bottom Rows Count: 2

Bottom Rows Spin/Ply: UNKNOWN

End String?: Maybe - caught in added braids

End String Spin/Ply:

Base Flat/Rounded: Rounded

Feather Stitch Spin/Ply:

Catalog: A52191 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Yellow feather ornamental device

Location: Featherwork Drawer 02

Optional Description: Braided yellow feather fan or ornamental device

Notable Characteristics: obverse has lots of stain, dirt, and sand

Height CM: 26

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: very slender (1/5-1/3 cm)

Braids Notes: braided strands "longer" than most before cross-binding stitches begin, braided to (10-11cm)/doubled row, unbraided below doubled row (~12cm)

Basting/Top Row

Basting Material: Cotton

Middle Rows

Middle Rows Material: Cotton - Middle and bottom rows are same yarn

Bottom Rows

Bottom Rows Material:

End String

End String Material:

Base Construction

Tip Finish: Tight, trimmed, rounded, single yarn stitched, tip folded closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: small 3-5 cm, yellow, body, discolored

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: stable; some feather loss, otherwise no notable loss or repairs; presence of stains and innate accretions

Width CM: 24

If yes, describe:

Braids Color: med to dark

Braids Materials: plant fiber - neat, tidy

Basting/Separate Top Row?: Yes, outside, loosely stitched yarn wrapped around the complete fan, knotted at one edge

Basting Spin/Ply: Z/S(8+)

Middle Rows Count: 10

Middle Rows Spin/Ply: S/Z(6-8+)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: No

End String Spin/Ply:

Base Flat/Rounded: Rounded

Feather Stitch Spin/Ply:

Catalog: A52192 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Blue feather ornamental device

Location: Featherwork Drawer 02

Optional Description: Braided blue/brown feather fan or ornamental device

Notable Characteristics:

Height CM: 27

Clear Front/Back?: Yes

Handle/Base Descriptions

Braids Size: less than 1/2cm

Braids Notes:

Basting/Top Row

Basting Material: Cotton - "hidden" - 3 strings through each side

Middle Rows

Middle Rows Material: Cotton - Slender threads, first row doubled

Bottom Rows

Bottom Rows Material:

End String

End String Material:

Base Construction

Tip Finish: tight bound

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-10 cm, blue/brown and blue/green feathers, some with peach/yellow undersides, some fuzz, not central shafts

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: stable; some feather loss, otherwise no notable loss, stains, accretions, or repairs

Width CM: 27

If yes, describe: Feathers all face in one direction

Braids Color: light to dark

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: Yes, one thin thread woven through and knotted at one edge

Basting Spin/Ply: S(1)

Middle Rows Count: 9

Middle Rows Spin/Ply: Z/S(4-6)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: No

End String Spin/Ply:

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52193 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Feather ornamental device

Location: Featherwork Drawer 02

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided yellow, orange, green (light olive) feather fan or ornamental device

Notable Characteristics:

Height CM: 30

Width CM: 30

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: 1/4 cm

Braids Color: medium to dark

Braids Materials: plant fiber - very fibrous

Braids Notes: color very light on unexposed areas, braided to second row (~10cm), unbraided (~13cm)

Basting/Top Row

Basting/Separate Top Row?: Maybe?, yarn carried down one side

Basting Spin/Ply: S/Z(2)

Basting Material: CAMELID - dark brown/black, dyed?

Middle Rows

Middle Rows Count: 3

Middle Rows Material: Cotton - light

Middle Rows Spin/Ply: Z/S(multi), 2 yarns z-ply

Bottom Rows

Bottom Rows Count: 4

Bottom Rows Material: CAMELID - same as top row, continuation?

Bottom Rows Spin/Ply: Z/S(2)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat until tip

Tip Finish: tight, open, trimmed, neat

Handle Other: knotted tip - other yarn?

Handle Other Description:

Feathers

Feather Description: small 3-7 cm orange, 3-5 cm yellow, 3-5 cm green

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52207 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 03

Condition/Conservation Notes: stable; some

Optional Description: Braided orange and yellow

broken feathers; no notable loss, stains, accretions,

feather fan or ornamental device

or repairs

Notable Characteristics: somewhat limp - would not have stood upright

Height CM: 28

Width CM: 13

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - very fibrous

Braids Notes: braided approx 1/3 total length ~13 cm, unbraided ~ 28 cm

Basting/Top Row

Basting/Separate Top Row?: Yes, hidden

Basting Material: Cotton - light cream, discoloration

Basting Spin/Ply: S/Z(8-10)

Middle Rows

Middle Rows Count: 5

Middle Rows Material: Same as first hidden row, 4 of the rows are doubled

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: same as above - 15 cm long

End String Spin/Ply:

Base Construction

Tip Finish: open, twisted on self, tied loosely near tip

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-8 cm orange/yellow

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52209 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;

Optional Description: Braided orange and yellow feather ornamental device

stable; missing approx half of braids some stains; no accretions or repairs

Notable Characteristics: Missing approx half of the feather braids (1/4 from each side/edge)

Height CM: 22

Width CM: 12

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~1/2 of length (~9 cm), unbraided ~10 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 7

Middle Rows Material: Cotton - top row doubled, all light to medium color, slightly fuzzy

Middle Rows Spin/Ply: Z/S(12+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - light color, less fuzzy than row material, ~8 cm long, knotted

End String Spin/Ply: S/Z(8+)

Base Construction

Tip Finish: open end, tightly tied

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: small 4-5 cm orange/yellow, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52220 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 03

Optional Description: Braided peach and cream feather fan or ornamental device

Condition/Conservation: Frozen 12/2012, frass found prior to treatment; stable; some loss of braids, otherwise no notable loss, stains, accretions, or repairs

Notable Characteristics: somewhat limp - would not have stood upright, possible human hair, excellent view of internal space/construction

Height CM: 26

Width CM: 20

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: 1/4 cm

Braids Color: light to medium

Braids Notes:

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material: Cotton - "hidden" row thread continues to remaining rows

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 6

Middle Rows Material: Cotton - continuation of top "hidden" row, medium light color, slender, slightly fuzzy

Middle Rows Spin/Ply: Z/S(8-10)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish: tight, flayed open, trimmed, neat

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-7.5 cm peach-creamy white feathers

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A52221 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 03

Optional Description: Braided peach and cream
feather fan or ornamental deviceCondition/Conservation: Frozen 12/2012, frass
found prior to treatment; stable; some loss of
braids, otherwise no notable loss, stains,
accretions, or repairs

Notable Characteristics: Possible human hair? (foreign thread)

Height CM: 25

Width CM: 17

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: 1/4-1/2cm

Braids Color: medium

Braids Notes: braided ~8 cm, unbraided ~10 cm

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting Material:

Basting/Separate Top Row?:

Middle Rows

Basting Spin/Ply:

Middle Rows Material: Cotton - top row doubled

Middle Rows Count: 5

Bottom Rows

Middle Rows Spin/Ply: Z/S(6+)

Bottom Rows Material:

Bottom Rows Count:

End String

Bottom Rows Spin/Ply:

End String Material: Cotton - very short, same as
above

End String?: Yes

End String Spin/Ply:

Base Construction

Tip Finish: open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-9 cm peach-creamy white feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52222 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 03

Condition/Conservation: Frozen 12/2012, stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided

brown/green/yellow/orange feather fan or ornamental device

Notable Characteristics: Foreign thread

Height CM: 22

Width CM: 26

Clear Front/Back?: Maybe

If yes, describe: feathers jumbled, but seem to mostly face in one direction

Handle/Base Descriptions

Braids Size: 1/4 cm

Braids Color: medium

Braids Notes: braided ~8 cm, unbraided ~5 cm

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting Material: Cotton - Side stitches, slender

Basting/Separate Top Row?: No

Basting Spin/Ply: S/Z(2)

Middle Rows

Middle Rows Material: CAMELID - bright red (1st knot on side?)

Middle Rows Count: 4

Middle Rows Spin/Ply: Z/S(3)

Bottom Rows

Bottom Rows Material: Cotton - tan

Bottom Rows Count: 1

Bottom Rows Spin/Ply: S/Z(3)

End String

End String Material: CAMELID? - fuzzy and fat, stitched through and over, added?, ~ 3 cm long plus loop

End String?: Yes

End String Spin/Ply: S/Z(3)

Base Construction

Tip Finish: bundled, tied, clipped

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 10-12 cm brown/green tipped with yellow and orange feathers, some fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52223 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, green

Location: Featherwork Drawer 03

Condition/Conservation: Frozen 12/2012, stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided and twisted multi-green feather fan or ornamental device

Notable Characteristics: Very well made, attention to small details, feathers are wrapped near each tip, not just bent tip with braid.

Height CM: 20

Width CM: 20

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light near feathers, very dark on handle

Braids Size: 1/4 cm

Braids Materials: plant fiber - slender, tight

Braids Notes: very tidy, tight, and slender braids (~ 2 cm), then twisted (~ 3 cm), unbraided ~ 5.5 cm

Basting/Top Row

Basting/Separate Top Row?: Maybe

Basting Material: Cotton - dark

Basting Spin/Ply: Z/S(8+)?

Middle Rows

Middle Rows Count: 6

Middle Rows Material: Cotton - many or all are doubled

Middle Rows Spin/Ply: S/Z(10+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tight, clipped

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 10 cm multi-green feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52224 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 04

Condition/Conservation: Frozen 11/2012; stable;
many broken/missing feathers; no notable stains,
accretions, or repairs

Optional Description: Braided

brown/orange/green/yellow feather fan or ornamental
device

Notable Characteristics:

Height CM: 23

Width CM: 24

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~10 cm, unbraided ~7 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 5

Middle Rows Material: Cotton - first row doubled,
cream/tan

Middle Rows Spin/Ply: Z/S(8+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - continuation of
stitching yarn, short

End String Spin/Ply:

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

FeathersFeather Description: medium/long 4.5-8 cm brown/orange/green/yellow feathers (brown shafts), many
broken/deteriorated, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52225 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 04

Optional Description: Braided blue/orange/brown feather fan or ornamental device

Notable Characteristics: Fibrous material caught in/on reverse (animal fur - possible raw llama?)

Height CM: 31

Clear Front/Back?: Yes

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes: braided ~14 cm, unbraided ~10 cm

Basting/Top Row

Basting Material:

Middle Rows

Middle Rows Material: Cotton - all rows seem to be same material, except ply increases by one yarn between beginning and e

Bottom Rows

Bottom Rows Material:

End String

End String Material: Cotton - very short

Base Construction

Tip Finish: tight, flayed open, trimmed, neat

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-9 cm deep blue/orange/brown (yellow shafts) feathers, many broken/deteriorated

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation: Frozen 11/2012; stable; many broken/missing feathers; no notable stains or repairs; innate accretion (fur)

Width CM: 29

If yes, describe: Feathers all face in one direction

Braids Color: medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows Count: 11

Middle Rows Spin/Ply: S/Z(4), S/Z(5)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply:

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52226 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 04

Condition/Conservation: Frozen 11/2012; stable; missing feathers/braids; no notable stains, accretions, or repairs

Optional Description: Braided peach/orange/yellow feather fan or ornamental device

Notable Characteristics: Both sides independently sewn through with top basting thread. Missing approx 1/3 of the feather braids (primarily one side/edge)

Height CM: 27

Width CM: 19

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~8 cm, unbraided ~15 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - somewhat "hidden", woolly

Basting Spin/Ply: Z/S(6+)

Middle Rows

Middle Rows Count: 12

Middle Rows Material: Cotton - added thread/yarn tied in as needed

Middle Rows Spin/Ply: Z/S(8+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: tie off is mixture of z/s and s/z

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - long (27 cm), two yarns, one white and one dark brown

End String Spin/Ply: white = S/Z(10+), brown = S/Z(4?)

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 5-6 cm, peach/orange/yellow (some brown, some yellow shafts) feathers, body, some fuzz

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52227 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, buff

Location: Featherwork Drawer 04

Optional Description: Braided yellow feather fan or ornamental device

Condition/Conservation: Frozen 11/2012; stable; few or no missing feathers; presence of stains/discoloration; no notable accretions or repairs

Notable Characteristics: Somewhat limp - would not have stood upright

Height CM: 27

Width CM: 27

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~2/3 of length (~10 cm), unbraided ~5 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - "hidden" row

Basting Spin/Ply: S/Z(2-3)

Middle Rows

Middle Rows Count: 6

Middle Rows Material: Cotton - dark

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 14 cm dark yellow (yellow shafts) feathers, discolored and very dirty

Feathers Stitched Through?: Yes

Feather Stitch Material: Cotton - dirty white thread

Feather Stitch Spin/Ply: S(1)

Catalog: A52229 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Exhibit 3CM27

Optional Description: Braided peach/cream and multi-green feather fan or ornamental device

Condition/Conservation: Frozen 05/2013; stable; feathers faded/discolored on one side; base incomplete or reworked; threads missing; no accretions; old repairs

Notable Characteristics: Two layers appear to have been separate fans - different threads for basting stitches, most threads gone (disintegrated or removed). The handle is not complete - either incomplete before burial or dismantled post-retrieval. One side shows repairs to feather braids with foreign threads, most likely post retrieval.

Height CM: 27

Width CM: 30

Clear Front/Back?: Unfinished or attempted retrofit repair

If yes, describe:

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes: braided ~8-11 cm, unbraided ~2-3 cm

Braids Color: light to medium

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting Material: Cotton - hidden/basting on each layer

Basting/Separate Top Row?: Yes

Basting Spin/Ply: S/Z(3)

Middle Rows

Middle Rows Material: CAMELID - dark brown remnants, most couching stitches are gone (perhaps removed?)

Middle Rows Count: UNKNOWN

Middle Rows Spin/Ply: S/Z(2)

Bottom Rows

Bottom Rows Material:

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String

End String Material:

End String?: No

End String Spin/Ply:

Base Construction

Tip Finish: Unfinished or attempted retrofit repair

Base Flat/Rounded: Unfinished or attempted retrofit repair

Handle Other:

Handle Other Description: Unfinished or attempted retrofit repair

Feathers

Feather Description: long 12-15 cm peach/cream (darker staining) outer layer, long 11-12 cm multi-green inner layers. Feathers appear trimmed, possibly post retrieval. One side feathers appear faded and damaged.

Feathers Stitched Through?: Yes

Feather Stitch Material: Cotton - multicolor (also some repair work with modern thread) - only on peach layer

Feather Stitch Spin/Ply: S(1)

Catalog: A52230 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange-white

Location: Featherwork Drawer 04

Condition/Conservation Notes: Frozen 11/2012;

Optional Description: Braided peach and cream
feather fan or ornamental device

stable; no notable loss, stains, accretions, or repairs

Notable Characteristics: Somewhat limp - would not have stood upright

Height CM: 25

Width CM: 20

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium to dark

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~8 cm, unbraided ~12 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 8

Middle Rows Material: Cotton - same material
including tie-off

Middle Rows Spin/Ply: Z/S(4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Same as above, ~6 cm

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 8-11 cm peach/creamy-white (cream-yellow shafts) feathers, fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52231 / Accession: 18046

General Shape: BraidBundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow-green

Location: Featherwork Drawer 04

Condition/Conservation Notes: Frozen 11/2012;

Optional Description: Braided and twisted multi-green feather fan or ornamental device

stable; some broken feather tips, otherwise no notable loss, stains, accretions, or repairs

Notable Characteristics: Somewhat limp - would not have stood upright, tied with plant fiber. Appears to be a bundle of feather braids.

Height CM: 24

Width CM: 24

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: dark

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - loose, fibrous

Braids Notes: some braids, some twists

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: VEGETAL ties

Middle Rows Spin/Ply: N/A - slight twist only

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish: loose tie in one spot, maybe bundled on self?

Base Flat/Rounded:

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 14-15 cm multi-greens/browns feathers, some broken tips

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52232 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 04

Optional Description: Braided yellow/brown feather fan or ornamental device

Notable Characteristics: Matched half of A52233

Height CM: 28

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes: braided ~8-9 cm, unbraided ~11 cm

Basting/Top Row

Basting Material: Cotton

Middle Rows

Middle Rows Material: Cotton - 5 green rows, 2 cream mixed with or tied down with green

Bottom Rows

Bottom Rows Material:

End String

End String Material:

Base Construction

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 5-9 cm yellow/brown-tan (yellow shafts) feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: Frozen 11/2012; stable; one edge cut; no notable loss, stains, accretions, or repairs

Width CM: 20

If yes, describe:

Braids Color: medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: Yes

Basting Spin/Ply: S/Z(4)

Middle Rows Count: 7

Middle Rows Spin/Ply: green = S/Z(9), cream = S/Z(6)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: No

End String Spin/Ply:

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52233 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 04

Optional Description: Braided yellow/brown feather fan or ornamental device

Notable Characteristics: Matched half of A52232

Height CM: 23

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes: braided ~8-9 cm, unbraided ~8 cm

Basting/Top Row

Basting Material: Cotton

Middle Rows

Middle Rows Material: Cotton - 5 green rows, 6 total cream with first 2 cream mixed with or tied down with green

Bottom Rows

Bottom Rows Material:

End String

End String Material: Cotton - Very short

Base Construction

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-9 cm yellow/brown-tan (yellow shafts) feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: Frozen 11/2012; stable; one edge cut; no notable loss, stains, accretions, or repairs

Width CM: 20

If yes, describe:

Braids Color: medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: Yes

Basting Spin/Ply: S/Z(4)

Middle Rows Count: 11

Middle Rows Spin/Ply: green = S/Z(9), cream = S/Z(6)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply: ?

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52234 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 04

Condition/Conservation Notes: Frozen 11/2012; stable; many broken/missing feathers; no stains, accretions, or repairs

Optional Description: Braided

orange/yellow/green/brown feather ornamental device

Notable Characteristics:

Height CM: 26

Width CM: 22

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Color: dark

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~12 cm, unbraided ~11 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - "hidden", single yarn

Basting Spin/Ply: Z/S(8-10)

Middle Rows

Middle Rows Count: 7

Middle Rows Material: Cotton

Middle Rows Spin/Ply: Z/S(10+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tight, flayed open, trimmed, neat

Handle Other:

Handle Other Description:

Feathers

Feather Description: mixed 3.5-5-7cm - orange/yellow/green/brown feathers (yellow shafts), body, many broken or deteriorated

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52236 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 05

Optional Description: Braided yellow feather fan or ornamental device

Notable Characteristics:

Height CM: 22

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: very slender (1/5-1/3 cm)

Braids Notes: braided ~8-9 cm, unbraided ~9-10 cm

Basting/Top Row

Basting Material: Cotton - one side only, tied near top between 1st and 2nd rows, other side was there but is broken a

Middle Rows

Middle Rows Material: Cotton - dark brown dyed, 2 rows "hidden" (1 near top and another near bottom)

Bottom Rows

Bottom Rows Material:

End String

End String Material: Cotton - long knotted cream, maybe added later

Base Construction

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 6 cm yellow (deteriorated) feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: stable; missing some braids; many feathers broken or deteriorated; no notable stains, accretions, or repairs

Width CM: 18

If yes, describe:

Braids Color: light to medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: Maybe

Basting Spin/Ply: S/Z(5-6)

Middle Rows Count: 6

Middle Rows Spin/Ply: S/Z(8-10)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply: S/Z(8-10)

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52237 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white and black

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided brown/cream feather fan or ornamental device

Notable Characteristics:

Height CM: 26

Width CM: 26

Clear Front/Back?: No

If yes, describe: Feathers face in all around

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~5 cm, unbraided ~11 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - "hidden" - not very visible

Basting Spin/Ply: S/Z(2-3)

Middle Rows

Middle Rows Count: 6

Middle Rows Material: Cotton - light

Middle Rows Spin/Ply: S/Z(9-10)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - multiple types/colors

End String Spin/Ply: dark = S/Z(5+), light = continuation of row material

Base Construction

Base Flat/Rounded: Rounded

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 8-10 cm brown/cream feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52238 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white and orange

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided orange/white feather fan or ornamental device

Notable Characteristics: Possible human hair? (foreign thread)

Height CM: 24

Width CM: 23

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: dark

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~7 cm, unbraided ~12 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - slender, same color as plant fiber

Basting Spin/Ply: S/Z(3)

Middle Rows

Middle Rows Count: 7

Middle Rows Material: Cotton - thicker, pale color

Middle Rows Spin/Ply: S/Z(2)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - ~7 cm

End String Spin/Ply: S/Z(7-8)

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, balled, closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: very small 3 cm orange/white, fuzzy

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52239 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided

green/orange/blue/brown feather fan or ornamental device

Notable Characteristics:

Height CM: 29

Width CM: 21

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~9 cm, unbraided ~11-13 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - "hidden", mixed colors

Basting Spin/Ply: S/Z(3)

Middle Rows

Middle Rows Count: 3

Middle Rows Material: Cotton - lighter, thicker

Middle Rows Spin/Ply: S/Z(2)

Bottom Rows

Bottom Rows Count: 4

Bottom Rows Material: Cotton - includes final wrap

Bottom Rows Spin/Ply: S/Z(8-10)

End String

End String?: Yes

End String Material: Cotton - mixed dark and light threads, 17 cm

End String Spin/Ply: Z/S(5-6)

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 10 cm green/orange/blue/brown feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52240 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 05

Condition/Conservation: stable; some feather

Optional Description: Braided cream/white feather fan or ornamental device

damage and stains; no notable accretions or repairs

Notable Characteristics:

Height CM: 29

Width CM: 27

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~8 cm, unbraided ~8 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - double knotted

Basting Spin/Ply: S/Z(8-10)

Middle Rows

Middle Rows Count: 7

Middle Rows Material: Cotton - loop tied to top row

Middle Rows Spin/Ply: S/Z(3-4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, balled, closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 14 cm cream/white (cream shafts) feathers, some damage

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52243 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; some feather loss, otherwise no notable loss, stains, accretions, or repairs

Optional Description: Braided orange feather fan or ornamental device

Notable Characteristics: Possible human hair? (Could not find during later reviews.)

Height CM: 24

Width CM: 27

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium to dark

Braids Size: 1/4 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: ?

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - "hidden" - not very visible

Basting Spin/Ply: S/Z(3-4)

Middle Rows

Middle Rows Count: 8

Middle Rows Material: Cotton - thin

Middle Rows Spin/Ply: S/Z(3-4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, but open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: very small 3-3.5 cm orange, fuzzy, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52244 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, or repairs; innate accretions (dirt) on one side

Optional Description: Braided orange/yellow feather fan or ornamental device

Notable Characteristics: "Twin" to 52245

Height CM: 31

Width CM: 35

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~12 cm, unbraided ~12 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - knotted

Basting Spin/Ply: S/Z(3-4)

Middle Rows

Middle Rows Count: 17

Middle Rows Material: Cotton

Middle Rows Spin/Ply: S/Z(4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: stitched, open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 6-8 cm orange/yellow (yellow shaft) feathers, fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52245 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 05

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Braided orange/yellow feather fan or ornamental device

Notable Characteristics: "Twin" to 52244

Height CM: 35

Width CM: 37

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~11 cm, unbraided ~15 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - thicker, knotted

Basting Spin/Ply: S/Z(6)

Middle Rows

Middle Rows Count: 16

Middle Rows Material: Cotton - thin

Middle Rows Spin/Ply: S/Z(4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: stitched, open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 8 cm orange/yellow (yellow shaft) feathers, some brown (brown shafts) feathers, fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52248 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 05

Optional Description: Braided orange/yellow/brown feather fan or ornamental device

Condition/Conservation Notes: stable; missing some couching yarns; may be cut on one edge; no notable stains, accretions, or repairs

Notable Characteristics: Very limp, open construction, possible breakage/loss of rows threads? Possible missing half?

Height CM: 23

Width CM: 22

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~11 cm, approx 2/3 length

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 2

Middle Rows Material: Cotton - dark brown (dyed?)

Middle Rows Spin/Ply: S/Z(5)

Bottom Rows

Bottom Rows Count: 3

Bottom Rows Material: Cotton - light tan to gray

Bottom Rows Spin/Ply: S/Z(8+)

End String

End String?: Yes

End String Material: Cotton - short, continuation of bottom rows

End String Spin/Ply: S/Z(8+)

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Rounded

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 5 cm orange/yellow/brown feathers, body, some fuzz

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52251 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white

Location: Featherwork Drawer 06

Optional Description: Braided and twisted peach/cream feather fan or ornamental device

Notable Characteristics:

Height CM: 20

Clear Front/Back?: Yes

Handle/Base Descriptions

Braids Size: 1/4 cm

Braids Notes: braids and twists 5 cm, unbraided 10 cm

Basting/Top Row

Basting Material:

Middle Rows

Middle Rows Material: Cotton - two varieties of yarn used together

Bottom Rows

Bottom Rows Material:

End String

End String Material: Same as above, ~2 cm

Base Construction

Tip Finish: wrap tied, but open, maybe cut

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 5-10 cm peach and cream, no fuzz, central shaft

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: stable; some feather damage, otherwise no notable loss, stains, accretions, or repairs

Width CM: 22

If yes, describe: Feathers all face in one direction

Braids Color: light to medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows Count: 9

Middle Rows Spin/Ply: Z/S(2)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply:

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52252 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, green

Location: Featherwork Drawer 06

Optional Description: Braided multi-green feather fan or ornamental device

Condition/Conservation Notes: stable; missing some braids; some missing feathers; many feathers broken or deteriorated; no notable stains, accretions, or repairs

Notable Characteristics: Missing small area of feathers

Height CM: 25

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: 1/4-1/2cm

Braids Notes: braided ~8 cm, unbraided ~12 cm

Basting/Top Row

Basting Material:

Middle Rows

Middle Rows Material: Cotton - light, slender

Bottom Rows

Bottom Rows Material: Cotton - tie off

End String

End String Material:

Base Construction

Tip Finish: tied, possible doubled over end

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 7-9 cm bright green/olive feathers (brown shafts), body w/ fuzz, very damaged, small section of missing feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Width CM: 22

If yes, describe: Feathers too jumbled to determine

Braids Color: light to medium

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows Count: 3

Middle Rows Spin/Ply: S/Z(3)

Bottom Rows Count:

Bottom Rows Spin/Ply: S/Z(2)

End String?: No

End String Spin/Ply:

Base Flat/Rounded: Rounded

Feather Stitch Spin/Ply:

Catalog: A52254 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 06

Optional Description: Twist attached orange/green-blue feather fan or ornamental device

Notable Characteristics: All twisted construction with some unwinding. Small area of broken feathers

Height CM: 20

Clear Front/Back?: Yes

Handle/Base Descriptions

Braids Size: 1/4 cm

Braids Notes: twists (no braids) almost entire length (w/in 2 cm of tip)

Basting/Top Row

Basting Material:

Middle Rows

Middle Rows Material: Cotton - two tone

Bottom Rows

Bottom Rows Material:

End String

End String Material: Cotton - bichrome, end tie and tail, 13 cm and 2 cm pieces

Base Construction

Tip Finish: Tied tight, possible cut

Handle Other:

Handle Other Description:

Feathers

Feather Description: 6-9 cm - brown/oranges/deep green-blue

Feathers Stitched Through?: No

Feather Stitch Material:

Condition/Conservation Notes: stable; missing some braids/twists; some feathers broken; no notable stains, accretions, or repairs

Width CM: 18

If yes, describe: Feathers all face in one direction

Braids Color: medium to dark

Braids Materials: plant fiber - slender, tight

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows Count: 9

Middle Rows Spin/Ply: S/Z(4)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply: S/Z(3)

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52255 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, multi-colored

Location: Featherwork Drawer 06

Condition/Conservation Notes: stable; missing

Optional Description: Braided green/blue/orange/brown feather fan or ornamental device

some braids; some feather deterioration; no notable stains, accretions, or repairs

Notable Characteristics: Missing approx 6+ feather braids (primarily one side/edge), some feather deterioration

Height CM: 25

Width CM: 14

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Color: medium

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~7 cm, unbraided ~10 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 7

Middle Rows Material: Cotton

Middle Rows Spin/Ply: S/Z(4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: stitched, open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium/long 7-8 cm brown/green-blue w/ occasional orange-yellow, body, dark shafts

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A52256 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow-orange

Location: Featherwork Drawer 06

Optional Description: Braided yellow/peach/cream
feather fan or ornamental deviceCondition/Conservation Notes: stable; missing
much couching stitching; one edge appears cut;
some feathers appear stained; no notable stains,
accretions, or repairs

Notable Characteristics: Row stitching very broken, one edge possibly cut.

Height CM: 18

Width CM: 23

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: very slender (1/5-1/3 cm)

Braids Notes: braided ~8-9 cm, unbraided ~5 cm

Braids Color: dark

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting Material:

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle RowsMiddle Rows Material: Cotton - dark brown (likely
dyed), very broken

Middle Rows Count: 7

Middle Rows Spin/Ply: S/Z(8+)

Bottom Rows

Bottom Rows Material:

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String

End String Material:

End String?: No

End String Spin/Ply:

Base Construction

Tip Finish: stitched, open, cut flat

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 4-6 cm pale yellow/peach w/ some brown (staining?), body, central shaft

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52257 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 06

Condition/Conservation Notes: stable; missing some braids; no notable stains, accretions, or repairs

Optional Description: Braided yellow and orange feather fan or ornamental device

Notable Characteristics: Different color feathers on each side. Missing approx 6+ feather braids both edges

Height CM: 27

Width CM: 25

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~16 cm, unbraided ~9 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: ? - knotted ends, very light

Basting Spin/Ply: S/Z(3)

Middle Rows

Middle Rows Count: 5.5

Middle Rows Material: CAMELID - dark brown

Middle Rows Spin/Ply: S/Z(2-3)

Bottom Rows

Bottom Rows Count: 4.5

Bottom Rows Material: Cotton - light tan to gray

Bottom Rows Spin/Ply: S/Z(4)

End String

End String?: Yes

End String Material: CAMELID - dark, part is 4-ply braid/weave

End String Spin/Ply: S/Z(5)

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: very small 3 cm - one side of fan are yellow and other side are bright orange/brown base, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52258 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 06

Optional Description: Braided yellow/brown feather fan or ornamental device

Condition/Conservation Notes: stable; missing braids and feathers; some feathers appear stained; broken couching stitches at one edge; innate accretions (dirt) on one side; no repairs

Notable Characteristics: Missing feathers and braids both edges, broken stitches one edge, clumps of dirt on obverse

Height CM: 31

Width CM: 24

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: very slender (1/5-1/3 cm)

Braids Color: light to medium

Braids Notes: braided ~12-13 cm, unbraided ~16 cm

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 8

Middle Rows Material: Cotton - light, yarns tripled (laying nearly parallel)

Middle Rows Spin/Ply: S/Z(2)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - two strings, ~3 cm each

End String Spin/Ply: S/Z(2), S/Z(3)

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: very small 2-2.5 cm yellow with brown tips (stain?)

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52259 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, orange

Location: Featherwork Drawer 06

Condition/Conservation Notes: stable; missing few feathers, otherwise no notable loss, stains, accretions, or repairs

Optional Description: Braided bright red-orange/white/brown base feather fan or ornamental device

Notable Characteristics: Missing 3-5 feathers, otherwise excellent

Height CM: 30

Width CM: 37

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium reddish

Braids Size: 1/2 cm

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~13 cm, unbraided ~15 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - lighter color, braided ends not knotted

Basting Spin/Ply: S/Z(6)

Middle Rows

Middle Rows Count: 15

Middle Rows Material: Cotton - slender yarns

Middle Rows Spin/Ply: S/Z(5)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton

End String Spin/Ply: S/Z(6)

Base Construction

Base Flat/Rounded: Flat

Tip Finish: tied, balled, closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: small/medium 3-6 cm bright red-orange/white w/ brown base, yellow shafts, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52260 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Exhibit 3CM27

Condition/Conservation Notes: Frozen 05/2013;

Optional Description: Braided golden-yellow/cream and bright red-orange/tan base feather fan or ornamental device

stable; no notable loss, stains, accretions, or repairs

Notable Characteristics: Multiple layers of feather braids stitched in flat pile on top of one another. Feathers are varying lengths, but have been attached so the top edge is straight.

Height CM: 29

Width CM: 30

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - slender, tight

Braids Notes: braided ~10-15 cm, unbraided ~9 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - lighter color, large knots on ends, basting/hidden row on each layer

Basting Spin/Ply: S/Z(4+)

Middle Rows

Middle Rows Count: 13

Middle Rows Material: Cotton - 2 are same as basting, 11 are fatter thicker

Middle Rows Spin/Ply: S/Z(4+), S/Z(4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - cut off, remnant only

End String Spin/Ply:

Base Construction

Tip Finish: tied, balled, closed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: small/medium 2-7 cm yellow, small/medium 2.5-6 cm orange

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52261 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, orange

Location: Featherwork Drawer 06

Optional Description: Braided bright red-orange/brown base feather fan or ornamental device

Condition/Conservation Notes: stable; missing some braids; missing or cut couching stitches on one edge; notable innate accretions; no notable stains or repairs

Notable Characteristics: Missing 2-3 feathers, dirt/sand on much of the surface, missing yarn rows at one edge.

Height CM: 24.5

Clear Front/Back?: No

Width CM: 22

If yes, describe:

Handle/Base Descriptions

Braids Size: 1/4-1/2cm

Braids Notes: braided ~9 cm, unbraided ~13 cm

Braids Color: light with dark (stain)

Braids Materials: plant fiber - loose, fibrous

Basting/Top Row

Basting Material:

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows

Middle Rows Material: Cotton - light

Middle Rows Count: 10

Middle Rows Spin/Ply: Z/S(5-6)

Bottom Rows

Bottom Rows Material:

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String

End String Material: Cotton - short tail, knotted

End String?: Yes

End String Spin/Ply: S/Z(4-5)

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Rounded

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 5-7 cm bright red-orange with brown bases, some fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52262 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, orange

Location: Featherwork Drawer 06

Optional Description: Braided bright red-orange/brown base feather fan or ornamental device

Condition/Conservation Notes: stable; missing some braids; missing or cut couching stitches on much of the base; bottom and side edges appear cut; no notable accretions, stains, or repairs

Notable Characteristics: Row stitching very broken, cut or broken edges.

Height CM: 27

Width CM: 27

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~18 cm, unbraided ~4 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 10

Middle Rows Material: Cotton - medium with dark areas (stains?)

Middle Rows Spin/Ply: S/Z(4)

Bottom Rows

Bottom Rows Count: 0.20000000000000001

Bottom Rows Material: Cotton - partial thread near bottom

Bottom Rows Spin/Ply: S/Z(4)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Flat

Tip Finish: stitched, open, flayed

Handle Other:

Handle Other Description:

Feathers

Feather Description: medium 4-6 cm bright red-orange with dark base, fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52263 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, multi-colored

Location: Featherwork Drawer 12

Condition/Conservation Notes: stable; some feather deterioration, otherwise no notable loss, stains, accretions, or repairs

Optional Description: Braided

blue/orange/yellow/brown/green feather fan or ornamental device

Notable Characteristics: Obvious feather braid placement to align tips of different-sized feathers. Slight feather deterioration otherwise excellent.

Height CM: 27.5

Width CM: 30

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided varying lengths

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: ? - loose ply

Basting Spin/Ply: S/Z(loose 3-4)

Middle Rows

Middle Rows Count: 6

Middle Rows Material: ? - loose ply

Middle Rows Spin/Ply: S/Z(loose 8-10)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: ? - soft, fuzzy, creamy (fat ply), sewn through tip

End String Spin/Ply: S/Z(2)

Base Construction

Tip Finish: tied, balled, closed

Base Flat/Rounded: Flat

Handle Other:

Handle Other Description:

Feathers

Feather Description: mixed 5-11 cm blue/orange/yellow/brown/green feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52264 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, multi-colored

Location: Featherwork Drawer 06

Optional Description: Braided blue-green/peach-orange feather fan or ornamental device

Condition/Conservation Notes: stable; missing some braids ; some feather deterioration, otherwise no notable loss, stains, accretions, or repairs

Notable Characteristics: Missing approx 6+ feather braids (primarily one side/edge), some feather deterioration

Height CM: 30

Clear Front/Back?: Yes

Handle/Base Descriptions

Braids Size: 1/2 cm

Braids Notes: braided ~18 cm almost to tip

Basting/Top Row

Basting Material:

Middle Rows

Middle Rows Material: Cotton - dark (stain?), thin, single yarn/not doubled

Bottom Rows

Bottom Rows Material:

End String

End String Material: Cotton - short

Base Construction

Tip Finish: tied, balled, closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 15 cm blue-green top/peach-orange bottom, Macaw, flight or tail?

Feathers Stitched Through?: No

Feather Stitch Material:

Width CM: 27

If yes, describe: Feathers mostly face in one direction

Braids Color: light with dark (stain)

Braids Materials: plant fiber - loose, fibrous

Basting/Separate Top Row?: No

Basting Spin/Ply:

Middle Rows Count: 9

Middle Rows Spin/Ply: S/Z(4-5)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: Yes

End String Spin/Ply: Z/S(4)

Base Flat/Rounded: Flat

Feather Stitch Spin/Ply:

Catalog: A52266 / Accession: 18046

General Shape: Fan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Large feather ornamental device, orange

Location: Featherwork Drawer 06

Optional Description: Braided orange feather fan or ornamental device

Condition/Conservation Notes: stable; missing some braids and feathers; missing or broken couching stitches on one edge; no notable stains, accretions, or repairs

Notable Characteristics: Missing approx 6+ feather braids (primarily one side/edge), some broken row stitches

Height CM: 27.5

Clear Front/Back?: No

Width CM: 30

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~18 cm, unbraided ~6 cm

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - knotted at ends

Basting Spin/Ply: S/Z(4)

Middle Rows

Middle Rows Count: 9

Middle Rows Material: Cotton

Middle Rows Spin/Ply: S/Z(3-5)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton - short

End String Spin/Ply: S/Z(4)

Base Construction

Base Flat/Rounded: Rounded

Tip Finish: tied, balled, closed

Handle Other:

Handle Other Description:

Feathers

Feather Description: very small 3 cm and medium 4.5-6 cm orange, body, some fuzz

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

*Other Forms***Catalog:** A52215 / **Accession:** 18046**General Shape:** WorkedPlume

Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;
stable; no notable loss, stains, accretions, or
repairsOptional Description: Braided yellow feather
ornamental device tied in bundleNotable Characteristics: Unique, braided handle. Details in feather attachments, bundle of feather braids
groups of three tied together, covered in more feather braids and tied. (foreign thread)

Height CM: 16

Width CM: 10

Clear Front/Back?: Maybe

If yes, describe:

Handle/Base Descriptions

Braids Color: light

Braids Size: mixed

Braids Materials: plant fiber - loose, fibrous

Braids Notes: Braided and twisted feather attachments, ~2/3 of handle is one large braid

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material: Cotton - inner wrap, outer wrap is
creamy/fuzzy

Basting Spin/Ply: inner = Z/S(4-6), outer = S/Z(6)

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: Yes

End String Material: Cotton

End String Spin/Ply: Z/S(2)/Z(4)

Base Construction

Base Flat/Rounded: Rounded

Tip Finish:

Handle Other: Braid

Handle Other Description: Wrapped braid

Feathers

Feather Description: very small 3 cm yellow, fuzzy

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A54997 / Accession: 20517

General Shape: Puff



Current KE EMu Display Name: Fan

Current KE EMu Object Description: Feather and cord fan

Location: Featherwork Drawer 04

Condition/Conservation Notes: Frozen 11/2012;

Optional Description: Braided dark brown to black
feather fan or ornamental device

stable; no notable loss, stains, accretions, or repairs

Notable Characteristics: Puff-like domed feather arrangement - very unusual

Height CM: 24

Width CM: 21

Clear Front/Back?: Yes

If yes, describe: Puff-like top of feathers

Handle/Base Descriptions

Braids Color: medium to dark

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~10 cm (to final tie off), unbraided ~7 cm

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - handle is
wrapped/tied, not sewn through

Bottom Rows Spin/Ply: Z/S(10+)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Very round

Tip Finish: tied, but open, flayed

Handle Other: Wrapped

Handle Other Description:

Feathers

Feather Description: medium/long 7-9 cm dark brown to black feathers, fuzz, body

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

*Fan and Stick***Catalog:** A52250 / **Accession:** 18046

General Shape: StickFan



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, white with wooden holder

Location: Featherwork Drawer 06

Condition/Conservation: stable; few or no missing

Optional Description: Ornamental stick device with braided cream/white feather fan attached

feathers; feathers appear stained; stick is broken; no notable accretions or repairs

Notable Characteristics: Combined construction styles. Stick inserted in center of braided "fan-like" structure, one loop of tie wrapped around, compare to #52265

Height CM: 21

Width CM: 23

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/2 cm

Braids Materials: plant fiber - loose, fibrous

Braids Notes: braided ~6 cm, unbraided ~18 cm (~11 cm doubled back)

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count: 1

Middle Rows Material: Cotton - only one row of stitching

Middle Rows Spin/Ply: Z/S(3)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish: tied, but open, flayed

Base Flat/Rounded: Rounded

Handle Other: Stick

Handle Other Description: 12 cm = 8 cm inside, 4 cm protrudes

Feathers

Feather Description: long 8-13 cm cream/white w/ staining/dirt, flight?

Feathers Stitched Through?: Yes

Feather Stitch Material: Cotton - single knot around each feather shaft

Feather Stitch Spin/Ply: S(1)

Stick Based

Catalog: A52186 / Accession: 18046

General Shape: StickFan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Large feather ornament on wooden holder

Location: Exhibit 3CM27

Optional Description: Ornamental pin device with multi-blue/orange/yellow/brown wrapped feathers attached to basket-weave base

Condition/Conservation: Frozen 05/2013, unstable; feathers extremely fragile and friable; many broken feathers; no notable stains, accretions, or repairs

Notable Characteristics: Unusual, multiple concentric rings of wrapped feather shafts, woven into a basket-weave base. Possibly used upright. Concentric rings shorter feather stalks graduated to long. Stick is 29 cm long, protrudes at base 20 cm, very slender (thickest is 0.4 cm) - *Possible Paracas Headdress Ornament*
Height CM: 53
Width CM: 31

Clear Front/Back?: Maybe

If yes, describe:

Handle/Base Descriptions

Braids Size: N/A

Braids Color:

Braids Materials: vegetal twig-like material wrapped with thread

Braids Notes: No braids

Top Row

Top Row Material: Cotton - threads used to wrap/tie each feather stalk

Separate Top Row?: N/A

Top Row Spin/Ply: Z(1)

Bottom Rows

Bottom Rows Material: Cotton - yarns to weave bottom are heavier thickness

Bottom Rows Count:

Bottom Rows Spin/Ply: S/Z(5-6)

End String

End String Material: Cotton - extension of final/outer weaving stitch

End String?: Yes

End String Spin/Ply: S/Z(5-6)

Base Construction

Tip Finish:

Base Flat/Rounded: Pin

Handle Other: Pin inserted through basket-weave style base

Handle Other Description: basket-weave base with pin - base is woven in part with feather stalks

Feathers

Feather Description: medium 5-9 cm, medium/long 10-11 cm, long 13-16 cm
blue/brown/yellow/cream/orange - many broken feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52190 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Headdress ornament

Current KE EMu Object Description: Hair and feather ornamental headdress attachment

Location: Featherwork Drawer 02

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Ornamental feathered stick-based headdress ornament

Notable Characteristics: Stick device with yellow/orange, orange/brown, and mixed blue feathers attached by twists, foreign thread

Height CM: 59

Width CM: 23

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Size: very slender (1/5-1/3 cm)

Braids Color: light

Braids Materials: plant fiber - very clean, different than most in collection

Braids Notes: Twists only, no braids

Basting/Top Row

Basting/Separate Top Row?: N/A

Basting Material: Cotton - two-tone binding

Basting Spin/Ply: S/Z(6+)

End String

End String?:

End String Material:

End String Spin/Ply:

Base Construction

Tip Finish:

Base Flat/Rounded:

Handle Other: Stick

Handle Other Description: bottom tip cut and smooth, ~51 cm long, ~10 cm protruding, ~1 cm thick

Feathers

Feather Description: medium/long 5-8 cm yellow/orange, medium/long 5-10 cm orange/brown, medium/long 6-11 cm deep blues/greens w/ touches of yellows and oranges

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52195 / Accession: 18046

General Shape: StickFan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Yellow feather ornament

Location: Featherwork Drawer 02

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs

Optional Description: Ornamental stick device with yellow feathers attached by braids/twists, fur strips tied around

Notable Characteristics: Mystery fur. Top ring - feather braid tied to stick, Second ring - feather braids/twists and fur wrapped and tied outside

Height CM: 33

Width CM: 19

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: clean, reddish brown

Braids Size: 1/4-1/2cm

Braids Materials: plant fiber

Braids Notes: some braids, some twists

Basting/Top Row

Basting/Separate Top Row?: N/A

Basting Material: Cotton - two-tone, creamy and tan, very slender

Basting Spin/Ply: S/Z(3?)

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - two-tone, creamy and tan, very slender

Middle Rows Spin/Ply: S/Z(7)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?:

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: bottom tip cracked open, may have been cut clean originally, Top tip smooth

Feathers

Feather Description: medium 5-6 cm, yellow

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A52196 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Feather ornament

Location: Featherwork Drawer 02

Optional Description: Ornamental stick device with yellow feathers attached by braids/twists, fur strips tied around

Condition/Conservation Notes: stable; stick broken in two places; missing some feathers; no notable stains, accretions, or repairs

Notable Characteristics: Mystery fur, fur= $\sim$ 10-12 cm long. Top 2/3 ylw/brown feathers, bottom 1/3 oranges

Height CM: 35

Width CM: 23

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: 1/4 cm

Braids Materials: plant fiber - slender, tight

Braids Notes: Two (or more originally) rings - upper yellow = braids, bottom = 1/2 braid, 1/2 twist

Basting/Top Row

Basting/Separate Top Row?: N/A

Basting Material: Cotton - ties at second (original middle?) ring

Basting Spin/Ply: Z/S(4+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton over plant fiber

Bottom Rows Spin/Ply: S/Z(8)

End String

End String?: Yes

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: stick is broken at top and bottom, upper portion missing as fur tie still there, $\sim$ 19 cm long, $\sim$ 3 cm protrudes, $\sim$ 7/10 cm thick**Feathers**

Feather Description: medium/long 5-8 cm yellow/brown, medium/long 6-9 cm orange/brown with slight greens and yellows

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52201 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device on wood

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken on one end; may be missing some feathers; broken feathers; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with tan/blue/orange feathers attached by twists

Conservation Notes: Frozen 12/2012

Notable Characteristics:

Height CM: 24

Width CM: 4

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium to dark

Braids Size: mixed

Braids Materials: plant fiber - loose, fibrous

Braids Notes: Twists only, no braids

Basting/Top Row

Basting/Separate Top Row?:

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - tan, not fuzzy

Middle Rows Spin/Ply: S/Z(3-4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?:

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: one end (bottom?) is broken, other end (top?) is rounded, finished, ~17 cm long, ~1 cm thick

Feathers

Feather Description: broken feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52202 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Hair and feather ornamental device with wood holde

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken in middle; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with green/yellow/orange/orange-brown feathers attached by braids/twists, fur strips tied around

Notable Characteristics: Mystery fur, Skin strips with fur used to tie feather braids to stick, fur=near base =~6 cm, remainder is ~10-12 cm long

Height CM: 53

Width CM: 16

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light

Braids Size:

Braids Materials: plant fiber - slender, tight

Braids Notes: three rings - top (green) braided, middle (yellow) braided thicker, bottom (orange) mixed slender braids and twists

Basting/Top Row

Basting/Separate Top Row?: Yes, two thread types

Basting Material: Cotton - cream and CAMELID - red

Basting Spin/Ply: cotton - S/Z(3), camelid - Z/S(3)

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - two yarns

Middle Rows Spin/Ply: S/Z(3)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - slender, light color

Bottom Rows Spin/Ply: S/Z(8-9)

End String

End String?: Yes

End String Material: Cotton - short, heavier, knotted, bichrome

End String Spin/Ply: Z/S(3)

Base Construction

Tip Finish:

Base Flat/Rounded:

Handle Other: Stick

Handle Other Description: Broken in middle (~17 cm from top), bottom tip is complete - carved to smooth point, ~43 cm long, ~15 cm protruding

Feathers

Feather Description: small 4-5 cm green, medium 5-8 cm yellow, medium 6-9 cm orange/brown - all body feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52203 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Hair and feather ornamental device with wood holder

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken near top; may be missing top section of feathers; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with yellow/orange/orange-brown/yellow-blue feathers attached by braids/twists, fur strips tied around

Notable Characteristics: Mystery fur, possible mate to A52202. Top feather ring may be missing, next is yellow, next is orange, bottom is yellow-blue/yellow-brown. Skin strips with fur used to tie feather braids to stick, fur ~11-13 cm. (foreign thread)

Height CM: 54

Width CM: 13

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light

Braids Size: slender

Braids Materials: plant fiber - slender, tight

Braids Notes: two or three rings - braids and twists, all end in twists, mostly twists

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton - light

Basting Spin/Ply: S/Z(3-4)

Middle Rows

Middle Rows Count:

Middle Rows Material: fur strip wraps three rings

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - light, hard finish

Bottom Rows Spin/Ply: S/Z(9)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Broken ~12 cm from top tip, bottom end seems like old weathered cut, top end is rounded and smooth, ~43 cm long, ~13 cm protrudes, ~1 cm thick

Feathers

Feather Description: medium/long 7-9 cm yellow, medium/long 7-9 cm orange, medium/long 7-9 cm yellow-brown/yellow-blue

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52204 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Hair and feather ornamental device with wood holde

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken in middle; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with yellow/orange feathers attached by braids/twists, fur strips tied around

Notable Characteristics: Mystery fur, Skin strips with fur used to tie feather braids to stick, fur=~10-11 cm, Foreign thread

Height CM: 39

Width CM: 3

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium on top three, bottom ring twists are dark

Braids Size: range between 1/4 cm to 1/2 cm, see

Braids Materials: plant fiber - slender, tight

Notable Description

Braids Notes: four rings - top braided, second twists with starter braid, third twists, bottom twists

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: Cotton

Basting Spin/Ply: S(1)

Middle Rows

Middle Rows Count:

Middle Rows Material: fur strip

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: fur strip wrapped and tied with two strings (Cotton-cream, CAMELID - red), plus end string

Bottom Rows Spin/Ply: cotton=s(1), camelid = Z/S(2-3)

End String

End String?: Yes

End String Material: Cotton - medium dark

End String Spin/Ply: S/Z(4)

Base Construction

Tip Finish:

Base Flat/Rounded:

Handle Other: Stick

Handle Other Description: Broken in middle, top end is chipped/carved?, bottom end is broken, top half = 23.5cm, bottom half = 15.5cm, ~2 cm protruding, ~1 cm thick

Feathers

Feather Description: broken feathers on top rings, small 3-5 cm yellow on next two rings, medium 5 cm orange-green bottom

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52205 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Headdress ornament

Current KE EMu Object Description: Hair and feather ornament for headdress with wood

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken; upper section of feathers and braids may be missing; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with yellow/peach/orange/dark blue-brown feathers attached by twists, fur strips tied around

Notable Characteristics: Mystery fur, Skin strips with fur used to tie feather braids to stick, fur ~8-9 cm, Foreign thread

Height CM: 39

Width CM: 14

Clear Front/Back?: Maybe

If yes, describe:

Handle/Base Descriptions

Braids Color: light to medium

Braids Size: very slender (1/5-1/3 cm)

Braids Materials: plant fiber - slender, tight

Braids Notes: Twists only, no braids - appears z-spun, s-twisted

Basting/Top Row

Basting/Separate Top Row?:

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: softer fur wrapped over feather attachments

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - harder finish, not fuzzy, light tan

Bottom Rows Spin/Ply: S/Z(multi)

End String

End String?: Yes

End String Material: ?? - thick, multi-tone, fuzzy

End String Spin/Ply: Z/S(3)

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Broken top, upper portion missing as fur tie still there, bottom end smooth "polished", stick appears polished, ~26 cm long, ~15.5 cm protruding, ~0.7 cm thick

Feathers

Feather Description: medium/long 4-9 cm orange/peach with some yellow and brown, some dark blue-brown

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52206 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Headdress ornament

Current KE EMu Object Description: Hair and feather ornament for headdress with wood

Location: Featherwork Drawer 03

Optional Description: Ornamental stick device with tan/blue/orange feathers attached by braids and twists

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken; upper section of feathers and braids may be missing; no notable stains, accretions, or repairs

Notable Characteristics: Stick protrudes at top ~6 cm = perhaps something missing

Height CM: 43

Width CM: 13

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: light and dark

Braids Size: varying

Braids Materials: plant fiber - very fibrous

Braids Notes: top row braided, remainder twisted

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: ? - creamy, fuzzy

Basting Spin/Ply: S/Z(8-10)

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: ? - two-tone brown

Bottom Rows Spin/Ply: Z/S(2)/Z(4)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Broken near bottom of wrapped area, top is smoothed finished, bottom is broken, ~43 cm long total, ~34 cm top, ~9 cm bottom, ~0.6 cm thick

Feathers

Feather Description: medium/long 7-0 cm multi-tone blue/yellow/orange/green/brown

Feathers Stitched Through?: No

Feather Stitch Spin/Ply:

Feather Stitch Material:

Catalog: A52217 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;

Optional Description: Ornamental stick device with yellow and orange feathers attached by braids/twists, fur strips tied around

stable; stick broken; no notable stains, accretions, or repairs

Notable Characteristics: Mystery fur, Skin strips with fur used to tie feather braids to stick

Height CM: 33

Width CM: 15

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: top = braids that are medium dark, bottom = testis that are light in color

Braids Size: 1/2 cm

Braids Materials: plant fiber - top = fibrous, bottom = slender and tight

Braids Notes: top row braided, remainder twisted

Basting/Top Row

Basting/Separate Top Row?: Yes, ties top row of fur to stick

Basting Material: Cotton - very slender medium bichrome color

Basting Spin/Ply: S/Z(2-3)

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - middle tie/wrapping, lighter color, thicker

Middle Rows Spin/Ply: S/Z(2-3)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: fur strip

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Broken at end of wrapping, ~25.5 cm long, ~1 cm thick

Feathers

Feather Description: medium 6 cm yellow, medium/long 6-8 cm orange

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52218 / Accession: 18046

General Shape: Stick



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; stick broken; no notable stains, accretions, or repairs

Optional Description: Ornamental stick device with orange/yellow/brown feathers attached by braids/twists, fur strips tied around

Notable Characteristics: Mystery fur, Skin strips with fur used to tie feather braids to stick

Height CM: 28

Width CM: 16

Clear Front/Back?: No

If yes, describe:

Handle/Base DescriptionsBraids Color: inner layer of twists, outer layer braided, tied/wrapped with fur strips
Braids Materials: plant fiber - loose, fibrous

Braids Size: 1/2 cm

Braids Notes:

Basting/Top Row

Basting/Separate Top Row?: Yes

Basting Material: fur strip

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - small piece of yarn near broken top edge of stick, cream color, purpose uncertain

Middle Rows Spin/Ply: Z/S(5+)/Z(3)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Broken on both ends, ~12.5 cm long, ~0.6 cm thick

Feathers

Feather Description: medium 6 cm orange/yellow/brown feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A54992 / Accession: 20517

General Shape: Stick



Current KE EMu Display Name:

Current KE EMu Object Description: Feathered Whisk

Location: Featherwork Drawer 11

Optional Description: Ornamental stick device with pale orange-cream and brown-black feather strings attached

Notable Characteristics: Complete, possibly Inca

Height CM: 28

Clear Front/Back?: No

Handle/Base Descriptions

Braids Size: ?

Braids Notes: top inner ring feathers attached with twists

Basting/Top Row

Basting Material: Cotton - feather strings (double) attach top outer and bottom single layer

Middle Rows

Middle Rows Material: Cotton - body wrap/tie, multi-colors of tans, creams, red-browns

Bottom Rows

Bottom Rows Material:

End String

End String Material:

Base Construction

Tip Finish:

Handle Other: Stick

Handle Other Description: Complete, top appears cut not broken, bottom carved to smooth point, ~24 cm long, ~0.5 cm thick

Feathers

Feather Description: top: medium/long 9-10 cm pale orange-cream feathers, bottom: medium 4.5 cm brown-black feathers

Feathers Stitched Through?: Yes

Feather Stitch Material: Cotton - fine, tan

Condition/Conservation Notes: Frozen 12/2012; stable; some feathers appear discolored; no notable stains, accretions, or repairs

Width CM: 16

If yes, describe:

Braids Color: ?

Braids Materials: plant fiber - slender, tight

Basting/Separate Top Row?:

Basting Spin/Ply: S/Z(3)

Middle Rows Count:

Middle Rows Spin/Ply: S/Z(4+)

Bottom Rows Count:

Bottom Rows Spin/Ply:

End String?: No

End String Spin/Ply:

Base Flat/Rounded:

Feather Stitch Spin/Ply: top: S/Z(2), bottom: S(1)

*Feather Wrapping***Catalog: A52187 / Accession: 18046**

General Shape: Fan



Current KE EMu Display Name: Ornament

Current KE EMu Object Description: Feather ornament

Location: Exhibit 3CM27

Condition/Conservation Notes: Frozen 06/2013;

stable; no notable loss, stains, accretions, or repairs

Conservation Notes:

Optional Description: Wrap-tied shafts of trimmed feathers of yellow, orange, black-brown with a large braided handle

Notable Characteristics: Unusual and attractive construction. Feather stalks woven/attached to plant fiber then tied into one big braid. Bent shape most likely post-retrieval.

Height CM: 25

Width CM: 18

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color:

Braids Size: N/A

Braids Materials: vegetal twig-like material wrapped with thread

Braids Notes: No braids

Basting/Top Row

Basting/Separate Top Row?: N/A

Basting Material: Cotton - medium brown slender threads wrapping each "stalk"

Basting Spin/Ply: Z(1)

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - light color, 10-15 individual single spin threads, not plied

Bottom Rows Spin/Ply: z(1)

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Rounded

Tip Finish: Large braid

Handle Other: Big braid

Handle Other Description: Feather stalks tied together and then all braided into one thick braid

Feathers

Feather Description: long 12 cm faded orange/yellow, remainder are trimmed orange, black-brown, and yellow feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52198 / Accession: 18046

General Shape: WorkedPlume



Current KE EMu Display Name: Feathers

Current KE EMu Object Description: Group of white feathers tied with cord

Location: Featherwork Drawer 02

Condition/Conservation: unstable; extremely fragile and friable; no notable stains, accretions, or repairs

Optional Description: Wrapped feather ornamental device

Notable Characteristics: Wrapped feathers

Height CM: 22

Width CM: 11

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color:

Braids Size: N/A

Braids Materials:

Braids Notes:

Basting/Top Row

Basting/Separate Top Row?:

Basting Material: Cotton - very slender threads wrap each feather stick/bundle, cream color

Basting Spin/Ply: Z(1)

Middle Rows

Middle Rows Count:

Middle Rows Material: Cotton - cream colored, fuzzy

Middle Rows Spin/Ply: S/Z(3)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?:

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick

Handle Other Description: Two pieces of broken stick?, ~17 cm long, ~3/5 cm thick

Feathers

Feather Description: very small 1-3 cm orange wrapped, small 4 cm cream/pale peach tips

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52213 / Accession: 18046

General Shape: WorkedPlume



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, orange

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable;
no notable loss, stains, accretions, or repairsOptional Description: Wrapped feather
ornamental deviceNotable Characteristics: Unique, braided handle, combination of two plant materials to create feather shafts
and handle

Height CM: 40

Width CM: 11

Clear Front/Back?: No

If yes, describe:

Handle/Base Descriptions

Braids Color: medium

Braids Size: N/A

Braids Materials: plant fiber - fibrous, very tight braid

Braids Notes: Only handle is braided

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material: Cotton - very slender threads
wrap each feather stick/bundle, cream color

Basting Spin/Ply: Z(1)

Middle Rows

Middle Rows Count: 1

Middle Rows Material: Cotton - same material
as feather wrapping, light tan

Middle Rows Spin/Ply: S/Z(4+)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Braid

Handle Other Description: braided plant fibers - very tight, one large braid

Feathers

Feather Description: very small 1-3 cm orange wrapped, large (?cm) orange tips

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52214 / Accession: 18046

General Shape: WorkedPlume



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, yellow

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012; stable; no notable loss, stains, accretions, or repairs

Optional Description: Wrapped feather ornamental device

Notable Characteristics: Unique

Height CM: 12

Clear Front/Back?: No

Width CM: 16
If yes, describe:**Handle/Base Descriptions**

Braids Color:

Braids Size: N/A

Braids Materials:

Braids Notes:

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material: Cotton - very slender threads wrap each feather stick/bundle, cream color

Basting Spin/Ply: Z(1)

Middle Rows

Middle Rows Count: 2

Middle Rows Material: Cotton - same material as feather wrapping, light tan

Middle Rows Spin/Ply: Z/S(3-4)

Bottom Rows

Bottom Rows Count:

Bottom Rows Material:

Bottom Rows Spin/Ply:

End String

End String?: No

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded: Rounded

Tip Finish: wrap tied, but open, maybe cut

Handle Other: Wrapped

Handle Other Description: Bound, feather-wrapped vegetal material

Feathers

Feather Description: very small 2.5 cm yellow wrapped and extending from tips

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

*Worked Feather Bundles***Catalog: A52199 / Accession: 18046**

General Shape: FeatherBundle



Current KE EMu Display Name: Feathers

Current KE EMu Object Description: Group of blue feathers tied with cord

Location: Featherwork Drawer 02

Condition/Conservation Notes: stable; no notable

Optional Description: Macaw feathers tied in bundle loss, stains, accretions, or repairs

Notable Characteristics: Internal layer of 6+ feathers tied together, second outer layer of 4 feathers tied over

Height CM: 24

Width CM: 6

Clear Front/Back?: Yes

If yes, describe:

Handle/Base Descriptions

Braids Color:

Braids Size: N/A

Braids Materials:

Braids Notes:

Basting/Top Row

Basting/Separate Top Row?:

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count:

Bottom Rows Material: Cotton - two colors spun together

Bottom Rows Spin/Ply: S/Z(3)

End String

End String?:

End String Material:

End String Spin/Ply:

Base Construction

Base Flat/Rounded:

Tip Finish:

Handle Other: Stick?

Handle Other Description: Possible broken stick in center, not protruding

Feathers

Feather Description: large 24 cm Macaw blue with red or yellow reverse, red with red reverse

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Catalog: A52210 / Accession: 18046

General Shape: FeatherBundle



Current KE EMu Display Name: Ornamental device

Current KE EMu Object Description: Feather ornamental device, blue

Location: Featherwork Drawer 03

Condition/Conservation Notes: Frozen 12/2012;
stable; no notable loss, stains, accretions, or
repairs

Optional Description: Macaw feathers tied in bundle

Notable Characteristics: Blue-green dyed cotton thread?

Height CM: 12

Width CM: 4

Clear Front/Back?: Yes

If yes, describe: Feathers all face in one direction

Handle/Base Descriptions

Braids Size: N/A

Braids Color:

Braids Notes:

Braids Materials:

Basting/Top Row

Basting/Separate Top Row?: No

Basting Material:

Basting Spin/Ply:

Middle Rows

Middle Rows Count:

Middle Rows Material:

Middle Rows Spin/Ply:

Bottom Rows

Bottom Rows Count: 2

Bottom Rows Material: Cotton - light blue green very
slender, ? - tan two-tone very slenderBottom Rows Spin/Ply: blue-green= S(1), tan =
S(1)**End String**

End String?: Maybe

End String Material: Cotton - same strings from
above?, +10 cm long

End String Spin/Ply:

Base Construction

Tip Finish:

Base Flat/Rounded:

Handle Other:

Handle Other Description:

Feathers

Feather Description: long 12 cm dark blue, blue-green, brown feathers

Feathers Stitched Through?: No

Feather Stitch Material:

Feather Stitch Spin/Ply:

Miscellaneous Featherwork

Miscellaneous: Band

Catalog: A52182 / Accession: 18046



General Shape: Band

Current KE EMu Display Name:
Headband (?)

Current KE EMu Object

Description: Headband of cat fur
with feather covered ornaments

Location: Exhibit 3CM27

Condition/Conservation Notes:
Frozen 12/2012; stable; no notable
loss, stains, accretions, or repairs

Optional Description: Band of fur with hard (leather?) feather-covered ornaments

Notable Characteristics: Feathers glued to small hard additions

Height CM: ~230

Width CM: ~3

Yarns/Threads

Yarn Material: N/A

Yarn Spin/Ply: N/A

Feathers

Feather Description: Iridescent blue, very small, maybe cut

Catalog: A52489 / Accession: 18046



General Shape: Band

Current KE EMu Display Name:
Head strap

Current KE EMu Object

Description: Feather head strap.
Black and yellow

Location: Exhibit 3CM27

Condition/Conservation Notes:
stable; no notable loss, stains,
accretions, or repairs

Optional Description: Woven band with blue and yellow feathers

Notable Characteristics: Slender decorative textile object, purpose unknown, with bands
of blue and yellow feathers, very unusual artifact

Height CM:

Width CM: 1.5-2

Yarns/Threads

Yarn Material: Dyed cotton or camelid?

Yarn Spin/Ply: Unknown

Feathers

Feather Description: Small to medium (3-6 cm) bright yellow and blue, likely Macaw

*Miscellaneous: Bird Wing***Catalog: A52219 / Accession: 18046**

General Shape: Bird Wing

Current KE EMu Display Name:

Ornamental device

Current KE EMu Object

Description: Feather ornamental device, blue

Location: Featherwork

Featherwork Drawer 03

Condition/Conservation Notes:

Frozen 12/2012; stable; no notable loss, stains, accretions, or repairs

Optional Description: Macaw wing, blue, bird tissue clings to feather base

Notable Characteristics: Nothing apparently added by humans

Height CM: 31

Width CM: 2.5

Yarns/Threads

Yarn Material: N/A

Yarn Spin/Ply: N/A

Feathers

Feather Description: Large 31 cm Macaw, blues on top/peach under

*Miscellaneous: Feathers***Catalog: A52189 / Accession: 18046**

General Shape: Feathers

Current KE EMu Display

Name: Feathers

Current KE EMu Object

Description: Group of spare feathers, blue

Location: Featherwork

Featherwork Drawer 02

Condition/Conservation

Notes: Frozen 12/2012; stable;

no notable loss, stains, accretions, or repairs

Optional Description: Macaw wing, blue, bird tissue clings to feather base

Notable Characteristics: Nothing apparently added by humans

Height CM: 30

Width CM: 4

Yarns/Threads

Yarn Material: N/A

Yarn Spin/Ply: N/A

Feathers

Feather Description: Large 30 cm Macaw, blues on top/peach under

Catalog: A52197Lot / Accession: 18046

General Shape: Feathers



Current KE EMu Display Name:

Feathers

Current KE EMu Object Description:

Bundles of feathers, multi-colored

Location: Featherwork Featherwork

Drawer 02

Condition/Conservation Notes: stable;
no notable loss, stains, accretions, or
repairs

Optional Description: Feathers, feather strings - from other pieces

Notable Characteristics:

Height CM: Varied

Width CM: Varied

Yarns/Threads

Yarn Material: Varied

Yarn Spin/Ply: Varied

Feathers

Feather Description: Primarily orange and yellow tones, but varied

Miscellaneous: Feather Bundle

Catalog: A52242 / Accession: 18046

General Shape: Feather Bundle



Current KE EMu Display Name: Spare
feathers

Current KE EMu Object Description:

Group of spare orange feathers

Location: Featherwork Featherwork

Drawer 05

Condition/Conservation Notes: stable;
no notable loss, stains, accretions, or
repairs

Optional Description: Macaw (orange) feathers tied in bundle

Notable Characteristics: Remnants of older COTTON yarns in 3 rows, S/Z (6-8), knotted
closely between each shaft, two layers. Additional yarn appears like later addition
perhaps?

Height CM: 24

Width CM: 7

Yarns/Threads

Yarn Material: Cotton

Yarn Spin/Ply: S/Z(6-8+)

Feathers

Feather Description: Large orange feathers

Catalog: A52200 / Accession: 18046

General Shape: Feather Bundle



Current KE EMu Display

Name: Feathers

Current KE EMu Object

Description: Group of four orange feathers tied with cord

Location: Featherwork

Featherwork Drawer 03

Condition/Conservation

Notes: Frozen 12/2012; stable; no notable loss, stains, accretions, or repairs

Optional Description: Feathers tied in bundle

Notable Characteristics:

Height CM: 27

Width CM: 6

Yarns/Threads

Yarn Material: Cotton - dark

Yarn Spin/Ply: S/Z(6)

Feathers

Feather Description: Large orange feathers with bluish shafts

Catalog: A52216 / Accession: 18046

General Shape: Feather Bundle



Current KE EMu Display

Name: Spare feathers

Current KE EMu Object

Description: Group of spare yellow and blue feathers

Location: Featherwork

Featherwork Drawer 03

Condition/Conservation

Notes: Frozen 12/2012; stable; no notable loss, stains, accretions, or repairs

Optional Description: Macaw feathers tied in bundle

Notable Characteristics:

Height CM: 25

Width CM: 9

Yarns/Threads

Yarn Material: Cotton

Yarn Spin/Ply: Z/S(12-13)

Feathers

Feather Description: Large 25 cm Macaw, yellows and blues

*Miscellaneous: Feather String***Catalog: A52286a-b / Accession: 18046****General Shape: Feather String**Current KE EMu Display
Name: WristletsCurrent KE EMu Object
Description: Pair of white
feather wristlets *

Location: Exhibit 3CM27

Condition/Conservation
Notes: stable; no notable
loss, stains, accretions, or
repairsOptional Description: * *Not wristlets* / Feathers string, possibly from feathered textile

Notable Characteristics:

Height CM: a=40, b=42

Width CM: a=2.5, b=2.5

Yarns/Threads

Yarn Material: Cotton

Yarn Spin/Ply: Unknown

Feathers

Feather Description: Very small (2-3 cm) white

Catalog: A52297 / Accession: 18046**General Shape: Feather String**Current KE EMu Display
Name: FeathersCurrent KE EMu Object
Description: Long string of
orange feathers, 12 cmLocation: Featherwork
Featherwork Drawer 10Condition/Conservation Notes:
stable; no notable loss, stains,
accretions, or repairs

Optional Description: Feathers string, possibly from feathered textile

Notable Characteristics: *Catalog and KE EMu entries suggest possible Paracas. There is no evidence to support Paracas.*

Height CM: 12

Width CM: 3

Yarns/Threads

Yarn Material: Cotton

Yarn Spin/Ply: Unknown

Feathers

Feather Description: Very small (3 cm) orange with khaki bases

*Miscellaneous: Pendant***Catalog: A52293a / Accession: 18046****General Shape: Pendant**

Current KE EMu Display Name: Pendant

Current KE EMu Object Description:

Feather covered leather pendant

Location: Exhibit 3CM10

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs



Optional Description: Feather covered leather pendant

Notable Characteristics: Feathers cut and glued to hard (leather?) oval shape

Height CM: 13

Width CM: 5

Yarns/Threads

Yarn Material: N/A

Yarn Spin/Ply: N/A

Feathers

Feather Description: Feathers in multiple colors - white, blue, green, black, orange, yellow. All very small or cut.

Catalog: A52293b / Accession: 18046**General Shape: Pendant**

Current KE EMu Display Name: Pendant

Current KE EMu Object Description:

Feather covered basketry pendant

Location: Exhibit 3CM27

Condition/Conservation Notes: stable; no notable loss, stains, accretions, or repairs



Optional Description: Feather covered basketry pendant, possibly woven of cotton yarns

Notable Characteristics: Feathers cut and glued to round woven shape

Height CM: 7

Width CM: 7

Yarns/Threads

Yarn Material: Cotton?

Yarn Spin/Ply: Unknown

Feathers

Feather Description: Feathers in multiple colors - blue, black, orange. All very small or cut.

APPENDIX C: FEATHERWORK COLLECTIONS IN OTHER MUSEUMS

A comprehensive list of museums with featherwork holdings located in Peru, Europe, Canada, and the United States may be found in Heidi King's *Peruvian Featherwork* book on page 209.

Three museums were chosen for research visits due to their common location in one city, their size of archaeological holdings, and accessibility to information. These were the American Museum of Natural History and the Metropolitan Museum of Art in New York and the Brooklyn Museum in Brooklyn. In general, due to time restrictions during these visits, I focused on non-textile feathered artifacts rather than featherworked textiles. Exceptions are noted as appropriate.

American Museum of Natural History, New York, NY

Author visited the AMNH in March of 2013 and viewed 30 Peruvian featherworks. The AMNH collection of archaeological featherworks is extensive, numbering 1,000 or more pieces. I spent two days reviewing artifacts from the collection and was obviously limited in the number I could review in such a short amount of time. Although I briefly viewed a few of the featherworked textiles in storage, I spent the majority of my time focusing on the non-textile decorative objects, particularly fan-shaped artifacts and the stick-based pins. Included in the tables in this section are a few highlights from these categories. The AMNH provides a comprehensive online collections database accessible at: www.amnh.org/our-research/anthropology/collections/database.

Background on the AMNH Peruvian Archaeology Collections Acquisitions

The following information comes from two sources, Sumru Aricanli (personal communication 2014) who is the Senior Scientific Assistant of Mexican, Central, and South American Archaeology at the AMNH and the 1921-1922 *Natural History Journal* of the AMNH.

Most of the AMNH artifacts I reviewed are labeled with “Juilliard/Gaffron” or “Gaffron, Dr. Edwardo” as the donors. Dr. Edwardo Gaffron was a collector of Peruvian art who sold his collection in 1914 to A.D. Juilliard, a Trustee of the museum. Juilliard then donated this collection to the museum which is the basis of Accession #1914-19 and is associated mainly with catalog numbers 41.0/678-1371. As described in the 1921 journal: “The Nazca collection, purchased from Dr. Gaffron and presented by Mr. Juilliard in 1914, consisted of 693 pieces, including textiles, featherwork, and valuable examples of Nazca pottery. It is believed that this is the largest Nazca collection in the world” (Natural History Journal 1921:553).

Two other accessions complete the AMNH’s Pre-Columbian collection, both of which include some featherwork, accessions #1901-17 and #1915-50, described as follows:

“Accession No: 1901-17 is associated mainly with catalog numbers B/7716-9542 (purchase from Dr. Edwardo Gaffron, gift of Morris K. Jesup)” (Personal communication, Sumru Aricanli:2014).

About accession #1915-50: “A. D. Juilliard is also associated with Accession# 1915-50, but the collector for that collection is Manuel Montero ” (Personal communication, Sumru Aricanli:2014). “A second noteworthy collection presented by Mr. Juilliard was

made in Ica by Senor Manuel Montero. One hundred twenty pieces-textiles, silver ornaments, musical instruments, and pottery-were embraced in the Ica collection” (Natural History Journal 1921:553).

The two Gaffron accessions contain the bulk of the Pre-Columbian featherwork at AMNH. At the time of acquisition much of the material in the Gaffron acquisitions was thought to be Nasca in origin. Unfortunately, it is not known if this was based on cultural or geographical attributions.



Example drawer of fans and decorative artifacts at AMNH (Photo by Diane Newbury)

AMNH Fan-Shaped Non-Textiles

I reviewed a small sample of the fan-shaped feathered artifacts at AMNH and found that the majority of the construction process for the AMNH objects was the same as that described in Chapter 6 of this thesis: 1) feather braids connected with a basting yarn (usually somewhat hidden in the fibers), 2) two or more layers of basted braids connected via couching threads, and 3) a base or handle finished with an end string. Some unique items were already discussed in the body of the thesis (such as the Paracas fan shown in Figure 52 in Chapter 6).

Image / Notes	AMNH Artifact Notes on File
	FEATHER FAN / Catalog No: 41.0/ 1293 Culture: NASCA / Country: PERU Material: BIRD FEATHERS, HARD FIBER Dimensions: L:31, W:33 [in CM] Technique: WRAPPING, PLYING Acquisition Year: 1914 (GIFT) / JUILLIARD/GAFFRON
	FEATHER FAN / Catalog No: B/ 7721 Locale: CHANCAY? / Country: PERU Period: 1000-1450AD Material: FOURCROYA (?), PARROT FEATHERS, COTTON Dimensions: L:34, W:41, H:7 [in CM] Technique: BRAIDING, COUCHING TO HOLD BRAIDS TOGETHER, WRAPPING TO ATTACH FEATHERS TO BRAID Subject: FAN COMPOSED OF BRAIDS WRAPPED WITH FEATHERS, GATHERED TO FORM A HANDLE Acquisition Year: 1901 (EXPEDITION) Donor: GAFFRON, EDUARDO, DR.
	FEATHER FAN / Catalog No: 41.0/ 1316 Locale: NASCA / Country: PERU Dimensions: L: 23, W: 17 [in CM] Technique: WRAPPING, PLYING Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON

AMNH Stick-Based Non-Textiles

Sixteen stick-based decorative featherworked objects were reviewed, with an emphasis on those including hide and fur strips similar to that used on the MPM fur-and-feather artifacts discussed in Chapter 6 of this thesis. Of interest, is that five of the AMNH fur-and-feather artifacts (# 41.0/1324, 41.0/1330, 41.0/1333, 41.0/1335, 41.0/1338) that were structurally most similar to those in the MPM collection were collected prior to 1914 and labeled as Nasca in origin. (Images below are from the AMNH online database and are owned by the AMNH.)

Image / Notes	AMNH Artifact Notes on File
 Note: Stick not broken	PLUME / Catalog No: 41.0/ 1324 Locale: NASCA / Country: PERU Material: ANIMAL HAIR, PARROT AND OTHER BIRD FEATHERS Dimensions: L:55, W:10 [in CM] Technique: BRAIDING, WRAPPING, PLYING Subject: ANIMAL HAIR AND FEATHERS ATTACHED TO BRAIDED AND PLIED CORDS ON A WOODEN STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON
 Note: Stick broken	PLUME / Catalog No: 41.0/ 1325 Locale: NASCA / Country: PERU Material: PARROT AND OTHER BIRD FEATHERS, FOURCROYA, CAMELID FIBER, WOOD OR CANE Dimensions: L: 33, W: 12 [in CM] Technique: BRAIDING, PLYING, WRAPPING Subject: BRAIDED AND PLIED CORDS ENDING IN FEATHERS, GATHERED AROUND A STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON

Image / Notes	AMNH Artifact Notes on File
 Note: Stick broken	PLUME / Catalog No: 41.0/ 1326 Locale: NASCA / Country: PERU Period: 100 B.C.-700 A.D. Material: PARROT AND OTHER BIRD FEATHERS, PROBABLY FOURCROYA, COTTON, WOOD Dimensions: L: 36, W: 9 [in CM] Technique: WRAPPING, PLYING, BRAIDING Subject: BRAIDED AND PLIED CORDS ENDING IN A FEATHER, GATHERED IN LAYERS AROUND A STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON
 Note: Stick not broken	PLUME / Catalog No: 41.0/ 1327 Locale: NASCA / Country: PERU Period: 100 B.C.-700 A.D. Material: PARROT AND OTHER BIRD FEATHERS, FOURCROYA, COTTON, UNSPUN COTTON, WOOD Dimensions: L: 43, W: 10 [in CM] Technique: PLYING, WRAPPING Subject: PLIED CORDS ENDING IN A FEATHER, GATHERED IN LAYERS AROUND A WOODEN STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON
 Note: Stick broken	PLUME / Catalog No: 41.0/ 1330 Country: PERU Material: ANIMAL HAIR, PARROT AND OTHER BIRD FEATHERS, COTTON, CANE, FOURCROYA Dimensions: L:50, W:10 [in CM] Technique: BRAIDING, WRAPPING, PLYING Subject: POSSIBLY TURBAN ORNAMENT, ANIMAL HAIR AND FEATHERS ATTACHED TO BRAIDED CORDS Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON

Image / Notes	AMNH Artifact Notes on File
 Note: Stick broken	PLUME / Catalog No: 41.0/ 1331 Locale: NASCA / Country: PERU Material: DUCK AND OTHER BIRD FEATHERS, FOURCROYA, COTTON, WOOD Dimensions: L: 44, W: 23 [in CM] Technique: WRAPPING, PLYING Subject: PLIED CORDS ENDING WITH A FEATHER, WRAPPED AROUND A WOODEN STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON
 Note: Stick not broken	PLUME / Catalog No: 41.0/ 1333 Locale: NASCA / Country: PERU Material: ANIMAL HAIR, PARROT AND OTHER BIRD FEATHERS, COTTON, WOOD, FOURCROYA? Dimensions: L:49, W:13 [in CM] Technique: WRAPPING, PLYING Subject: ANIMAL HAIR AND FEATHERS ATTACHED TO PLIED CORDS AND GATHERED AROUND WOOD STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON
 Note: Stick not broken, but cut	PLUME / Catalog No: 41.0/ 1335 Locale: NASCA / Country: PERU Material: ANIMAL HAIR, PARROT AND OTHER BIRD FEATHERS, CAMELID FIBER, WOOD OR CANE, FOURCROYA? Dimensions: L: 33, W: 10 [in CM] Technique: BRAIDING, PLYING, WRAPPING Subject: ANIMAL HAIR AND FEATHERS ATTACHED TO BRAIDED AND PLIED CORDS ON A WOODEN STICK Acquisition Year: 1914 [GIFT] Donor: JUILLIARD/GAFFRON

Image / Notes	AMNH Artifact Notes on File
 Note: Stick broken	PLUME / Catalog No: 41.0/ 1338 Locale: NASCA / Country: PERU Material: ANIMAL HAIR, PARROT AND OTHER BIRD FEATHERS, FOURCROYA?, CAMELID FIBER, WOOD OR CANE Dimensions: L: 27, W: 12 [in CM] Technique: WRAPPING, PLYING Subject: ANIMAL HAIR AND FEATHERS ATTACHED TO PLYED CORDS AND GATHERED AROUND WOOD STICK Acquisition Year: 1914 (GIFT) Donor: JUILLIARD/GAFFRON

Brooklyn Museum, Brooklyn, NY

Author visited the Brooklyn Museum in March of 2013 to view approximately 12 of the museum's Peruvian featherworks. The museum does not have an extensive collection of Pre-Columbian featherwork, but houses a few unique and well-preserved items. Most of the artifacts reviewed do not directly correlate to items in the MPM collection, with few exceptions. In particular three feather braids bundles in the Brooklyn Museum align with those at MPM. The Brooklyn collection was researched in 1997 through the Andean Textiles-Mellon Research Project resulting in some provenience assessments at that time. A few artifacts from Paracas and Inca origins, with researched and accepted provenience, were present and are notably different than any of the MPM artifacts. The museum's online search tool does not include any of the featherworked items at this time. Images provided by Diane Newbury, artifact notes from the Museum's internal database courtesy of Nancy Rosoff, Andrew W. Mellon Curator of the museum's Arts of the Americas.

Feather Braid Bundles

Image / Notes	Brooklyn Museum Artifact Notes on File
 Nobuko Kajitani 1998 wrote in curatorial notes: “May be from featherworker’s basket. Appears to be complete as excavated, but not as a usable item.”	Fan?, Fragment Arts of the Americas / 1995.47.84 Unknown Wari artist 200-1400 AD / Middle Horizon or Late Intermediate place made: South Coast Peru, Andes Textile. Feathers, bast fiber height: (17.0 cm) X width: (13.0 cm) Gift of Kay Hodnett Nunez
 Colors are not accurate. / Nobuko Kajitani 1998 wrote in curatorial notes: “May be from featherworker’s basket. Appears to be complete as excavated, but not as a usable item.”	Textile Fragment, Undetermined Arts of the Americas / 1995.47.85 Unknown Wari artist Middle Horizon place made: South Coast Peru, Andes Textile. Feather, cotton, bast fiber height: (19.0 cm) X width: (10.0 cm) Gift of Kay Hodnett Nunez

Image / Notes	Brooklyn Museum Artifact Notes on File
 Colors are not accurate. / Nobuko Kajitani 1998 wrote in curatorial notes: “May be from featherworker’s basket. Appears to be complete as excavated, but not as a usable item.”	Fan, Fragment Arts of the Americas / 1995.47.86 Unknown Wari artist Fan, Fragment Middle Horizon place made: South Coast Peru, Andes Textile. Feathers, cotton, bast fibers height: (30.0 cm) X width: (21.0 cm) Gift of Kay Hodnett Nunez
 Colors not accurate. / Nobuko Kajitani 1998 wrote in curatorial notes: “May be from featherworker’s basket. Appears to be complete as excavated, but not as a usable item.”	Fan Arts of the Americas / 1995.47.87 Unknown Wari artist 200-1400 AD / Middle Horizon place made: South Coast Peru, Andes Textile. Feather, bast fiber, cotton height: (20.0 cm) X width: (14.0 cm) Gift of Kay Hodnett Nunez

Paracas /Inca / Chimú Artifacts

Image / Notes	Brooklyn Museum Artifact Notes on File
 Note: Attribution reasonably confident based on curatorial research.	Turban Arts of the Americas / 34.1594 Unknown Paracas artist 300 B.C.E.-100 C.E. place made: South Coast Peru Cotton, camelid fiber, feathers 336 x 2 3/8 in. (853.4 x 6 cm) Alfred W. Jenkins Fund
 Note: Attribution reasonably confident based on curatorial research; additional notes indicate South Highlands as likely origin	Miniature Headdress Arts of the Americas / 41.1275.108b Unknown Inca artist 1400-1532 Pre-Columbian possible place made: Southern region Peru possible place made: Northern region Chile Camelid fibers, feathers 4 1/2 x 3 1/8 in. (11.4 x 7.9 cm) Museum Expedition 1941, Frank L. Babbott Fund



Note: Attribution by Anne Rowe, 1993

Headdress

Arts of the Americas / 66.15.2

Unknown Chimú artist

1000-1532

Early Colonial or possibly Late Intermediate

place made: Peru

Cotton, feathers (Muscovy duck)

7 1/2 x 15 3/4 x 7 1/2 in. (19 x 40 x 19 cm)

Gift of Jack Lenor Larsen

Metropolitan Museum of Art, New York, NY

Author visited the MMA in March of 2013 to view a limited selection of Peruvian featherworks. The MMA holds a collection of at least 100 Pre-Columbian Featherworks, primarily textile based. Some of the featherworked textiles are quite large, such as the Wari hangings (see Chapter 2, Figure 13). There were five fan-shaped decorative objects which I reviewed, all constructed in a similar manner to the braided fans in the MPM collection. I was also able to review a coca bag and three miniature textiles. Highlights from the collection shown below. Descriptions from MMA. Full collection search tool available online at: <http://www.metmuseum.org/collections/search-the-collections>

Image / Notes	MMA Artifact Notes on File
	Feathered Ornament Date: 11th–15th century (?) / Geography: Peru / Culture: Peru; central or south coast (?) / Medium: Feathers, vegetable fiber, cotton Dimensions: H x W: 11 x 9 1/2in. (27.9 x 24.1cm) Classification: Feathers-Ornaments Credit Line: The Michael C. Rockefeller Memorial Collection, Gift of Miss Amalia M. de Schulthess, 1960 Accession Number: 1978.412.47
Photo by Diane Newbury.	

Image / Notes	MMA Artifact Notes on File
 Photo by Diane Newbury.	Feathered Ornaments L to R: #1978.412.51, 1978.412.48, 1978.412.49, and 1978.412.50 / Smallest: H. 20 cm x W. 14 cm to Largest: H. 29 cm x W. 26 cm Date: 11th–15th century (?) / Geography: Peru Culture: Peru; central or south coast (?) / Medium: Feathers, vegetable fiber, cotton / Classification: Feathers-Ornaments / Credit Line: The Michael C. Rockefeller Memorial Collection, Gift of Miss Amalia M. de Schulthess, 1960
 Photo by Diane Newbury. Weave: 2 x 1, warp vs weft uncertain, feathers trimmed, folded at top, edges unstitched, but folded forward under feather strings	Miniature Tunic Date: 12th–13th century / Geography: Peru, Ica Valley / Culture: Ica / Medium: Cotton, feathers Dimensions: H. 8 x W. 7 in. (20.3 x 17.8 cm) Classification: Textiles-Featherwork Credit Line: The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 Accession Number: 1979.206.679

Image / Notes	MMA Artifact Notes on File
	Feathered Bag Date: 15th–early 16th century / Geography: Peru / Culture: Inca / Medium: Cotton, feathers Dimensions: H. 6 x W. 4 3/4 x D. 2 in. (15.2 x 12.1 x 5.1 cm) Classification: Textiles-Featherwork Credit Line: Bequest of Arthur M. Bullowa, 1993 Accession Number: 1994.35.101

Photo from MMA website.

APPENDIX D: RADIOCARBON DATED FEATHERWORKED ARTIFACTS

Notes regarding this table: These items are not MPM materials. They contribute to this thesis by providing comparative materials that have been radiocarbon dated. Dates and object measurements are presented as documented in the source material; hence the information may be more or less complete according to what was provided. Although difficult to tell from the pictures, it appears that the majority of the objects called tunics are actually tabards, as remnants of corner ties may be seen in larger photos.

Image	Description	C14 Dating	Source
	Tunic	C14-AMS age (y BP)	Reid 2005:Plate 5
	Chincha/Ica, south coast Natural cotton with applied feathers	820+/-30 2 sigma (95% conf.) AD 1168-1275	Private collection, New York
	Tabard with three figures	AD 1212-1284 (95% probability)	H. King:2012b Plate 5 (Location as above.)
	Culture uncertain, far south coast 24 3/8 x 39 3/8 in (62 x 100 cm) Feathers on cotton		

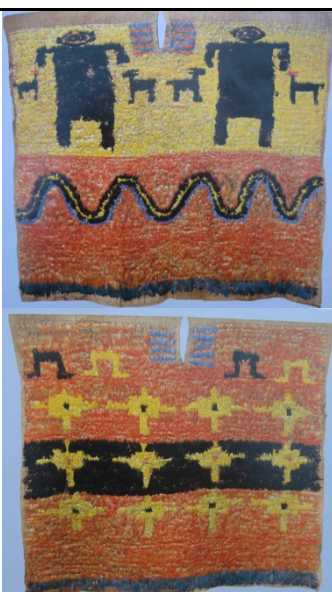
This artifact appears in both sources. Note date difference between the sources.

Image	Description	C14 Dating	Source
	Tunic Late Paracas or possible Early Nasca, south coast Natural brown wool with applied feathers	C14-AMS age (y BP) Wool: 1904+/-69 Feathers: 2130+/-88 2 sigma (95% conf.) Wool: 37BC-AD318 Feathers: 376BC+/-52	Reid 2005:Plate 19 Private collection, New York
	Trophy skull with headdress Nasca/Wari, south coast Skull, silver, totora reed, natural and dyed cotton, feathers	C14-AMS age (y BP) 1200+/-55 2 sigma (95% conf.) AD 699-970	Reid 2005:Plate28 Private collection, New York
	Tunic Probably Chincha Ica with Inca influence or post conquest Inca, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 355+/-50 2 sigma (95% conf.) AD 1452-1645	Reid 2005:Plate 35 Private collection, New York
	Ceremonial object Wari, north coast Natural cotton, wood slats, string, feathers	C14-AMS age (y BP) 1085+/-43 2 sigma (95% conf.) AD 886-1022	Reid 2005:Plate 41 Private collection, Chicago

(Dating difference for wool v feathers thought to be due to marine life diet of birds)

Image	Description	C14 Dating	Source
	Tunic Chimú, Chimú/Inca, or Inca, north coast Natural cotton with applied feathers	C14-AMS age (y BP) 415+/-50 2 sigma (95% conf.) AD 1425-1634	Reid 2005:Plate 44 Private collection, New York
	Half tunic Chimú, north coast Natural cotton with applied feathers	C14-AMS age (y BP) 515+/-50 2 sigma (95% conf.) AD 1309-1475	Reid 2005:Plate 54 Private collection, New York
	Cloak Nasca, south coast Natural and dyed cotton, feathers, fox pelts	C14-AMS age (y BP) 1460+/-50 2 sigma (95% conf.) AD 531-672	Reid 2005:Plate 64 Private collection, San Francisco
	Tunic Late Wari, early Chincha/Ica, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 941+/-41 2 sigma (95% conf.) AD 1004-1211	Reid 2005:Plate 67 Private collection, Chicago

Image	Description	C14 Dating	Source
	Tunic Nasca, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 865+/-50 2 sigma (95% conf.) AD 1043-1276	Reid 2005:Plate 78 Private collection, New York
	Child's tunic and loincloth Late Paracas or possible Early Nasca, south coast Dyed wool with applied feathers	C14-AMS age (y BP) 2075+/-60 2 sigma (95% conf.) 350BC-AD62	Reid 2005:Plate 86 Private collection, Chicago
	Tunic Nasca, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 1575+/-55 2 sigma (95% conf.) AD 393-614	Reid 2005:Plate 88 Private collection, New York
	Miniature tunic, female Chincha Ica, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 743+/-35 2 sigma (95% conf.) AD 1222-1298	Reid 2005:Plate 119 Private collection, Chicago

Image	Description	C14 Dating	Source
	Tunic, incomplete Nasca, Nasca/Wari, south coast Natural cotton with applied feathers	C14-AMS age (y BP) 1201+/-34 2 sigma (95% conf.) AD 693-955	Reid 2005:Plate 91 Private collection, Chicago
	Tabard with hook- motif border Late Nasca/Wari 55 7/8 x 52 in (142 x 133 cm) Feathers on cotton	AD 780-985 (95% probability)	H. King 2012b: Plate 19 (Location as above.)
	Tabard with human figures and llamas Culture uncertain, far south coast 43 3/4 x 49 1/4 in (111 x 125 cm) Feathers on cotton	AD 1298-1397 (95% probability)	H. King 2012b: Plate 4 Cat #1978.412.20 Metropolitan Museum of Art, New York

This artifact appears in both sources. Note date difference between the sources.

Image	Description	C14 Dating	Source
	Tabard with four frontal birds Ica(?), south coast, 29 1/8 x 25 in (74 x 63.4 cm) Feathers on cotton	AD 1400-1610 (95% probability)	H. King 2012b: Plate 10 Cat #59.135.8 Metropolitan Museum of Art, New York
	Tabard with four birds in brown and white, front half shown Culture uncertain, north coast Front half: 27 x 27 1/2 in. (68.5 x 70 cm) Feathers on cotton	AD 1453-1627 (95% probability)	H. King 2012b: Plate 11 Cat #63.163 Metropolitan Museum of Art, New York
	Tabard with yellow yoke Ica(?), south coast, 35 x 29 7/8 in (89 x 76 cm) Feathers on cotton	AD 1276-1390 (95% probability)	H. King 2012b: Plate 18 Cat #29.146.25 Metropolitan Museum of Art, New York

Image	Description	C14 Dating	Source
 	Tabard with geometric design Ica(?), south coast, 39 ¾ x 52 in. (101 x 132 cm) Feathers on cotton	AD 1288-1399 (95% probability)	H. King 2012b: Plate 24 Private collection
	Headdress with back panel: checkerboard design Late Chimú/Ichma(?) Height: 33 ½ in (85 cm) Feathers on cotton	AD 1410-1620 (95% probability)	H. King 2012b: Plate 36 Cat #1978.412.1 Metropolitan Museum of Art, New York
	Miniature dress, female design Ica, south coast 9 ½ x 8 ½ in (24 x 21.5 cm) Feathers on cotton	AD 1154-1273 (95% probability)	H. King 2012b: Plate 54 Cat #1979.206.639 Metropolitan Museum of Art, New York

Image	Description	C14 Dating	Source
	Panel Wari Reportedly from Corral Redondo, Churunga Valley 70.5 x 213.4 cm (27 1/4 x 84 in.) Feathers on cotton, camelid fiber	AD 660-870 (95% probability) Assumed to be from the same group as the blue-and-yellow panel below.	H. King 2012b: Figure 18a Cat #1979.206.475 Metropolitan Museum of Art, New York
	Blue And Yellow Panel Wari, Middle Horizon 69.6 cm x 198.8 cm (27 3/8 x 78 1/4 in.) feathers, cotton	810-970 CE (Confidence level not provided) Assumed to be from the same group as the all-yellow panel above.	Dumbarton Oaks database Cat #PC.B.522
	Miniature Feather Tunic Ica-Chincha?, Late Intermediate Period 33.97 x 35 x 4.45 cm (13 3/8 x 13 3/4 x 1 3/4 in.) feathers, cotton	1160-1260 CE (Confidence level not provided)	Dumbarton Oaks database Cat #PC.B.523 Dumbarton Oaks, Washington, DC

APPENDIX E: TEXTILE TERMINOLOGY MASTER LIST

All definitions are either verbatim, or only moderately paraphrased for the sake of brevity, from the sources. The following resources were used:

- Irene Emery's *The Primary Structures of Fabrics* (1980): IE
- Raoul d'Harcourt *Textiles of Ancient Peru and Their Techniques* (1962): Rd'H
- Merriam Webster online dictionary: MW
- Textile Museum – Common Threads/Textile Terms: TM

Plain weave: A type of simple weave wherein there are only one set of warp elements and one set of weft elements. The simplest possible interlacing of warp and weft yarns or other elements in which each weft unit passes alternately over and under successive warp units (over-one, under-one), and each reverses the procedure of the one before it. It is possible to vary the nature of the fabric by modifying spacing, pliability, or size relationships between warp and weft elements, or by grouping elements into units (IE: 76).

- *Balanced plain weave:* Warp and weft elements are equally spaced and equal or approximately equal in size and flexibility (IE:76).
- *Warp-faced plain weave:* Warp elements hide the weft elements completely, due to their greater number and spacing in relation to the weft (IE:76).
- *Predominant warp:* Warps outnumber the wefts, but do not entirely conceal them (IE:76).

- *Weft-faced plain weave*: Weft elements hide the warp elements completely, due to their greater number and spacing in relation to the warp (IE:77).
- *Predominant weft*: Wefts outnumber the warps, but do not entirely conceal them (IE:77).
- *Multiple-element units*: Warp or weft elements can be paired, tripled, or used in larger groups. Examples of possible descriptions include plain weave with paired warps, plain weave with paired wefts, plain weave with paired warps and wefts, etc. (IE:77).

Plied yarn: Element formed by twisting two or more single (unplied) yarns together. The number of single yarns united this way is indicated in the terms for the plied yarn, as 2-ply, 3-ply, etc. (IE:10).

Selvage: (British spelling: selvedge) The edge on either side of a woven or flat-knitted fabric so finished as to prevent raveling; specifically a narrow border often of different or heavier threads than the fabric and sometimes in a different weave. (MW)

Textile or woven cloth: The product obtained by the intercrossing at right angles of yarns divided into at least two elements – warp and weft. (Rd'H:10)

Thread: The terms *yarn* and *thread* are frequently used interchangeably, but some differences are usually assumed. Thread typically implies a finer as well as more tightly twisted element, which is plied, and used as a sewing element (IE:12). (See the definition for *yarn*.)

Thread count: Count of the number of warp and weft elements in the linear unit of measurement (IE:76).

Warp: Parallel elements that run longitudinally in a loom or fabric, crossed at more or less right angles and interworked by transverse elements. (Note that in four-selvage fabrics, the long dimension is not necessarily in the warp direction.) (IE:74). Looms cannot function unless the warp is under tension, so all looms also contain a means for stretching the warp. (TM)

Weft: Transverse elements in a fabric (generally parallel to each other and to the terminal edges or ends of the fabric) which cross and interwork with the warp elements at more or less right angles (IE:74).

Yarn: General term for any assemblage of fibers or filaments which has been put together in a continuous strand suitable for weaving, knitting, and other fabric construction (IE:10). (See the definition for *thread*.)

APPENDIX F: BIRD SPECIES IN ANDEAN FEATHERWORK

John P. O'Neill (2005:348-361) analyzed a group of archaeological Andean feathered objects and determined that the feathers used in the construction of those objects were likely to be from the species listed below. This list, arranged by color, is a summary of his more detailed study (O'Neill 2005:355 Table B). A deeper analysis of the bird species represented in the MPM collection or that of other featherwork collections is beyond this thesis.

Feather Color	Potential Bird Species Sources
Black feathers	Razor-billed curassow, Muscovy duck body/primaries, turkey vulture body, black vulture body, cormorant species body or tail, comb duck or Muscovy duck tertials, paradise tanager mid-belly, cocoi heron neck or wing feathers, flamingo primaries or some secondaries, macaw primaries, or the pale-winged or grey-winged trumpeters
Blue feathers	Blue-and-yellow macaw upper body/wing/tail, scarlet macaw upper and under tail coverts/wings, red-and-green macaw upper and under tail coverts/wings, or the spangled cotinga body
Blue-green feathers	Trogons/quetzals
Brown feathers	Muscovy duck or cormorant tail or may be from a woodcreeper (<i>Dendrocolaptidae</i>) or tropical ovenbird (<i>Furnariidae</i>); may also be worn or faded turkey vulture feathers
Chartreuse feathers	Paradise tanager head
Green feathers	Amazona parrot body, Aratinga parakeet body, red-and green and scarlet macaw wing coverts, toucanets (<i>Aulacorhynchus</i>), or green-bodied tanagers (<i>Tangara</i> or <i>Chlorophanes</i>); long greenish-yellow feathers with darker bases may be from Amazona parrot tails
Orange (may vary to orangey pink) feathers	Possibly macaw feathers altered by tapirage process or those that are worn or faded; Andean cock-of-the-rock

Feather Color	Potential Bird Species Sources
Pink feathers	Chilean, Andean, or James' flamingo body or from the Chilean flamingo upper or under wing coverts and/or axillaries
Purple feathers	Paradise tanager throat, purple honeycreeper body, opal-rumped or opal-crowned tanager body
Red feathers	Scarlet macaw body, red-and-green macaw body, Chilean flamingo shoulder, Andean flamingo breast and shoulder, James' flamingo breast and shoulder, scarlet macaw tail, red-and-green macaw tail, or the paradise tanager rump
Reddish violet feathers	Spangled cotinga throat
Turquoise feathers	Paradise tanager breast and flanks, spangled cotinga body, and the plum-throated cotinga body
White feathers	Heron or egret body/wing/tail, Muscovy duck shoulder/body/wing/tail, Guanay cormorant breast/wing/tail, gull species body/wing/tail, versicoloured teal flank feathers, Peruvian pelican breast or belly, or juvenile (mainly Chilean) flamingo body
Yellow feathers	Blue-and-yellow macaw underparts, Amazona parrot wing and tail, Oropendola outer tail, or scarlet macaw upper wing coverts; buff-colored yellows may be from barn owl body feathers