Unbundled: European Collecting of Andean Mummies 1850-1930

Ordoñez Alvarez, M.P.

Chapter 6

Rethinking Bodies

Museum collections are not one-dimensional. They are composed of the history of collecting as much as by the objects themselves. As has been explored earlier, one cannot be understood completely if separated from the other. Nevertheless, it is through the objects biographies (as explained in chapter 2) that the relevance of any object within a collection can be understood.

In the previous two chapters, the process of formation of Andean mummy collections in the seventeen museums that are part of this research was investigated. A comparative glance at the recorded history of the individual mummies that are part of those collections has also been given, in an attempt to show that these processes of collecting are not isolated. Rather, these processes are part of a seemingly universal impulse to "complete" museums, aided by political incidents, which delineated the relationship between Europe and the Andes starting in the nineteenth century.

The previous chapters have, therefore, made a classification within historical parameters. This chapter, conversely, aims to look at the collections of mummies presented in previous chapters through a contemporary lens. The intent is to reanalyze the mummies in these museum collections in light of present-day archaeology, in order to see how historical and contemporary perceptions of the same object have changed, or not. In doing so, the roles, uses, and storage practices in which these remains have been involved –the museum practices that surround them– are addressed. In this chapter, it is argued that the historical process that led to their collecting is no longer the most relevant point of comparison, but rather their current state of preservation.

Looking at the remains in terms of museum practice is vital because, once the people who collected the remains and during what historical processes that occurred have been explored, it is the aspect of classification, the order given to the collections once accessioned, that becomes most relevant. This implies not only a change of perspective from historical to contemporary, but also a whole series of different interactions with the collections.

One such instance is the focus on the different actors involved in the collection-making process. When considering the process of collecting historically, the explorers and donors are the relevant actors. Nevertheless, once introduced into the museum, it is not the collector that determined the classification of the objects (both human remains and artifacts that accompany them), but rather the curators that have arranged the purchase or donation of the items. This implies that some of the first-hand knowledge regarding the remains has been lost and the classifications made are not always accurate. Through time, collections have been re-accommodated, curated, and displayed. Significant changes to the state in which they initially entered the collection can be seen.

As has been done previously, collections in this chapter will be seen as part of a single universe, or rather, merged into one single group (population) outside of the individual museums. The merger of data into a single grouping offers the possibility to address

contemporary museum concerns, such as the determination of object authenticity from a more nuanced perspective. Objects collected, restored, and changed by the practice of collecting itself can be reclassified in erroneous ways that seem to disqualify their authenticity. The inspection of the collections in this research points out that an object has not lost its authentic qualities, even when its reclassification under parameters currently in use may overshadow diagnostic characteristics or confuse them for non-authentic ones.

When looking at mummies as individual data points, their materiality becomes the most relevant information. The first-hand data collected from the object itself, as explained in chapter 3, is organized in a specific database where it can be compared and opposed to its peers. By removing the collection division, the data can be seen as the consequence of a long period of collection, but irrespective of personal and motivations. The focus of interpretation is now on why certain objects are collected, while the individual ways in which the objects were collected now becomes irrelevant.

As stated earlier, here the historical process that led to their collecting is no longer the most relevant point of comparison, but the focus is their current state of preservation. This does not mean that the historical and contemporary data do not intersect, or that these temporalities become exclusive. Indeed, they intersect only in regards to the actors who have looked or worked with the collection from its accession until today. As is explained in this chapter and the next, in most of the museum collections there was no record of previous research conducted with the remains, and no explicit desire to look at them before this research. Nevertheless, it is important to point out that it is not necessarily that the museum has not wanted to update their contextual information, but that they have not had the opportunity. As is mentioned in chapter 2 and discussed in the following chapter, the holding, preservation, and ethical concerns regarding human remains, and especially mummified human remains have preoccupied the museum world since the inclusion of such collections to the storerooms. However, though many discussions have been held regarding the ethical aspects of these sensitive materials, very little has been done until recently to try and sort the materials themselves.

In more practical terms, what this change of scope also presents is the opportunity to look at these collections as reflections of the contemporary archaeological view of the Andes. The Andes, as represented by mummies, is a concept that is explored in more detail in the following discussion chapter. However, it is useful here to point out that the reason to look into the materiality of the remains today is to find the commonalities and divergences in the collections that help interpret the reasons behind past collecting.

From here, the task is to counterpose these narratives to the current, or rather contemporary, understanding of the archaeology of the Andes. The identification, classification, and understanding of funerary traditions in the region have changed dramatically since the nineteenth century. As the techniques to identify and describe mummified human remains have changed, so have the biographies of the mummies stored in museums.

However, in the case of the national European museums in this research, the information available about these remains has not always kept up with the times.

This implies that geopolitical changes, such as the redrawing of borders, have been largely ignored. This fact has already been called to attention in the previous chapter, but it will be explored again here. Other information that has become more accurate in time, regarding cultural affiliations of remains, has not been updated in the museum databases either. In consequence, many of the locations given by the collectors for the remains have been used as cultural affiliations. Outdated categorizations have also been used to provide a cultural affiliation for the remains, and examples of such cases are explored in this chapter.

Another important aspect of inquiry for the existing databases is the demographic information recorded. The accuracy of age at death and sex assessments, before the standardization of the methodologies described in chapter 3, is to be taken into question. The way these collections have been presented to the public in reference to that demographic data has also been explored. It is important here to notice briefly that the gendered hairstyles, for example, as well as gendered labors (such as fishermen, textile worker, etc.), have been used as ways to determine the sex of the remains. This gendering has been done by the collectors, using contemporary modern ideas of the gender distribution of physical attributes and of the sexual division of labor. Needless to say, most of those classifications do not match with pre-Columbian ones, and hence lead to the incorrect attributing of sex to human remains.

In light of all these important changes in the way human remains can be described, categorized and therefore presented to the public, this chapter is divided into three parts. The first will address the issue of provenience, as well as that of cultural affiliation. This is done by comparing the information still present in the databases to that attainable through visual analysis. The second part concentrates on demographic data. Estimations of sex and age at death from those remains that can be assessed will be presented, in order to gain an insight into the importance of this type of data when looking at a collection of human remains. Finally the third part refers to the processes of preservation and modification that the remains have undergone since their time of collection until today. Although neither the exact timeline of those changes nor the motivation for them can be described, in most cases, the regularity of some of those changes and what they constitute for the overall collection will be highlighted.

6.1 Whereabouts in the Andes?

Accession books, museum inventories and catalogs present a version of which objects are held in a collection. In all cases of museums included in this dissertation, several moves, reorganizations and changes in the way these objects are stored have taken place over the years. These changes also mean that, in some very few and unfortunate cases, by the time

an object needs to be accessed, it cannot be located in a storage facility.

Of the 237 remains listed in this dissertation, 215 (or 95%) were available for inspection. The reasons for this vary, from counting two representations of mummies that were the only ones left of what had been collected –those are the items 02203, 02346, 02347 from the Inventory at the Museo de América– or because, though items were listed in inventory pages, they had not been photographed and therefore could not be linked to actual remains seen in storage –those are cases VA33977, VA33978, VA403, VA405 and VA66445– as well as objects that could simply not be located at the time when the visit to the storage facilities was undertaken because the museum storage areas had recently moved or the object itself had been moved from exhibit to storage. The bulk of the collections, however, were available for inspection. As can be seen in the graph below, the ten individuals absent account for only a 5% of the total. When possible, because the information available on the inventory allowed us to do so, the type and size of remains has been taken into account.

Included among those mummies that were not personally examined are the remains of the Chinchorro mummies at the Museum of World Cultures in Gothenburg. These remains had been already extensively studied and described with current technology, which allowed the author to be able to use the already available information instead of going to the museum.

The remaining 215 elements are divided into remains that the author could see personally, and those that had to be seen through catalog entries and inventory descriptions with photographs. In the case of the Berlin collection, remains as a whole were inspected. Their general characteristics, as well as their holdings and classification, were noted, though not individually. However, individual descriptions of the remains were based on the inventory pages provided by the curator, as well as through already existing publications on the collection.

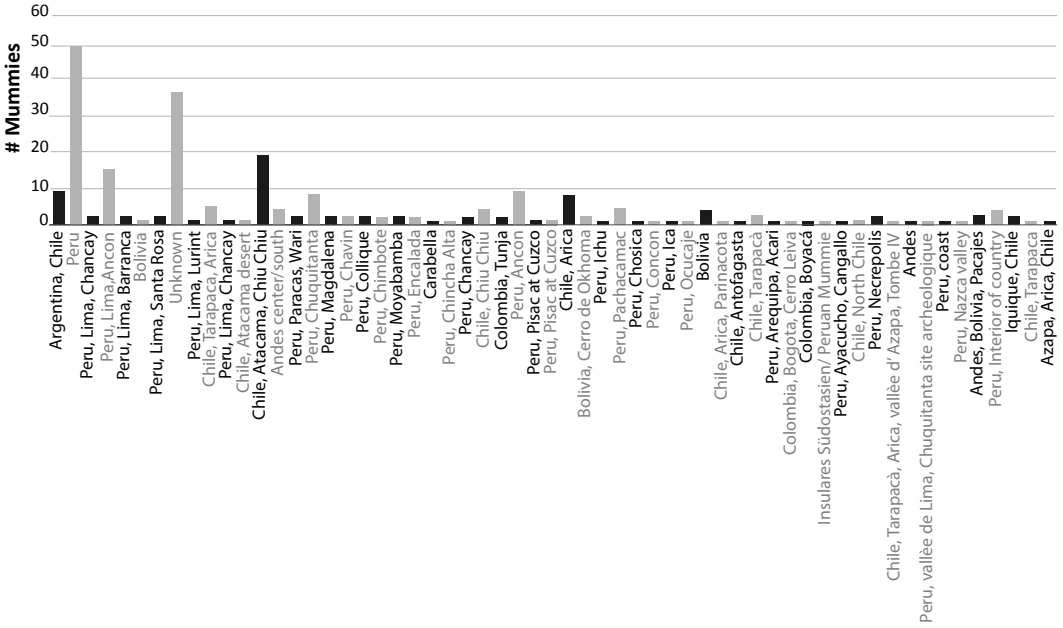
Table 22: Total number of remains explained.

Type of inspection	#
Remains individually inspected	151
Remains seen but not individually inspected	74
Remains not found	10
Remains not seen but included from literature	2
Total number of remains	**237**

As shown in previous chapters, the remains were first inspected in terms of provenience. The annotated proveniences had been recorded at the moment of accession. In some instances, a cultural affiliation was suggested at the same time as a place of collection. The most common collection sites listed are “Peru,” as a general category without

a specific location; “Peru, Lima Ancón” and “Peru, Ancón,” probably referencing the very popular necropolis of Ancón; “Chile, Atacama, Chiu Chiu”; and “Chile, Arica,” “Chile, Arica y Parinacota.” The last three refer to the northern Atacama desert area, once part of Peru, now part of Chile, and hence classified as such. In the graph below, the most common provenience sites are highlighted.

Graph 9: Archival Data on Mummies Organized by Provenience.

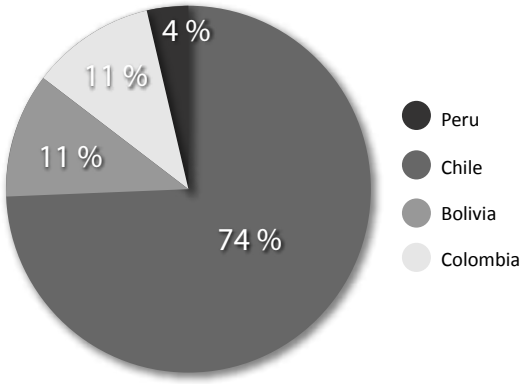


Although the location of the remains at the moment of collection may indicate a cultural affiliation, this is not always made apparent in the archival information. Moreover, when an area is too large or generic, then it is almost impossible to link a provenience with a cultural affiliation.

Contextualization of a mummy can infer nothing regarding the place of collection of said remains. What can be pointed out are the differences between historical and contemporary classifications of the areas mentioned, as has been done in the previous chapter.

In terms of classification, something noteworthy is that after a reclassification of mentioned sites and the cultures, Peru is still the most prevalent country of origin in the analyzed collections. The previous chapter mentioned that more than half of the mummies of all the collections are described as coming from Peru. Chile was the second largest provenience recorded from archives, but very far behind Peru. In third place came Argentina, followed closely by Bolivia, and in very last place Colombia.

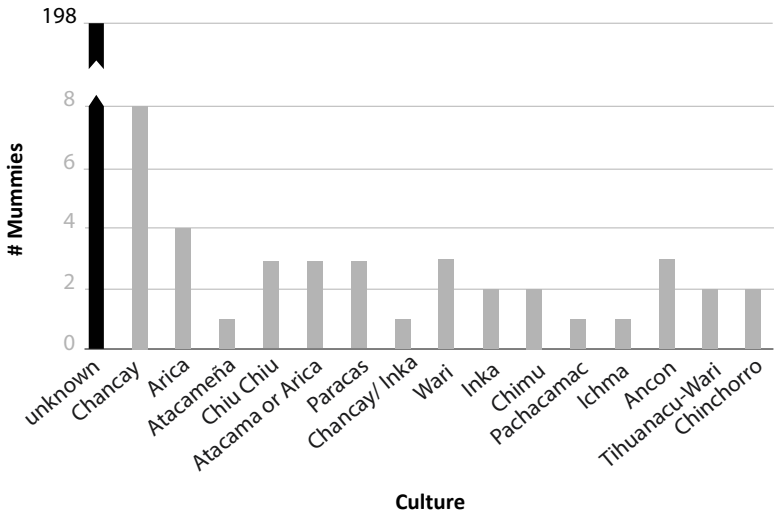
Graph 10: Percentages of Mummies in Relation to the Contemporary Country Where They Are Located.



The distribution trend continues only in respect to Peru after the reclassification of the remains.[66] Peru represents 78% of all human mummified material collected. Bolivia, however, has gained prominence with 12% of the total, followed by Chile, with Colombia in last place.

Similarly, as with the graph of the proveniences, the following chart presents the recorded archival cultural affiliation. It is clear that the unknown cultural affiliations account for the majority of remains, 198 of 237.

Graph 11: Archival information Regarding Cultural Affiliation of Mummies.



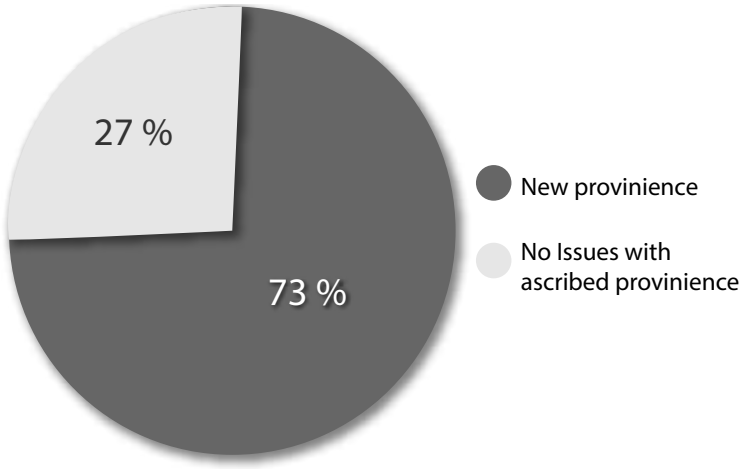
66 For details see chapters 3 and 5.

The second and third most commonly noted cultural affiliations in the archives are Chancay and Arica. Arica is both a indicator as well as a cultural affiliation, so it can be expected to be quoted more often than other cultural affiliations. Chancay refers to the pre-Columbian culture that developed between the valleys of Fortaleza, Pativilca, Supe, Huaura, Chancay, Chillón, Rimac and Lurin, all of them in the central coast of Peru, close and around the present-day Lima area and towards the north. Because of the temporality of Chancay (1200-1450 A.D.), after the Wari Empire (600- 100 A.D.), as well as before and during the Inca Empire, many sites associated with Chancay in historical data can also be allocated to those other cultures. The occupation of the necropolis of Ancón, for example, spans from Wari to Inca. Therefore the remains that have been classified in regards to that provenience can actually be affiliated to any of the three cultures that occupied it, including Chancay.

Using the methodology described in Chapter 3, the cultural affiliation of remains has been more precisely pinpointed. As has been noted in that chapter, the associated textiles both on the mummies and stored with them, the type of burial (cradle, versus crouched, versus basket), and any closely linked associated artifacts were used for re-contextualization.

After examination of the remains, a number of individuals were reassigned to a different cultural affiliation. This means that the affiliation suggested by archival information was replaced with a new contextualized cultural affiliation. There are a total of eighty individuals that can be linked to a specific culture. Of those, sixty-six remains have been reassigned to a different cultural group, while fourteen have remained unchanged.

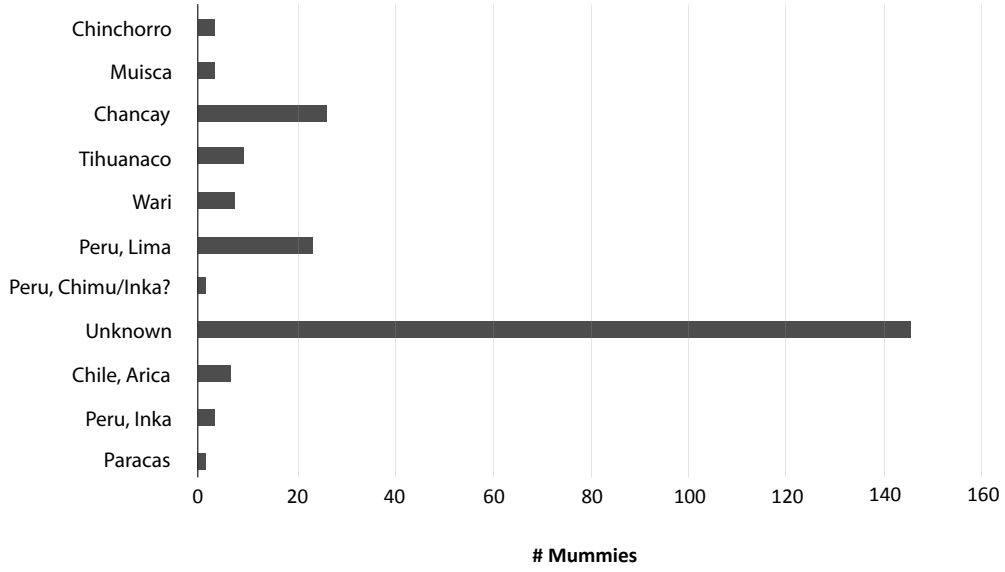
Graph 12: Percentages of Mummies with Reassigned Versus Not-reassigned Proveniences.



Eighty two percent (82%) of the remains that had been assigned a cultural provenience on the archival data were, in fact, inaccurate. A graph with the new information can be seen below. Although most remains continue to be unclassified –145 in total– this indicates that forty-four remains which were previously unclassified could actually be assigned a cultural affiliation based solely on their associated artifacts.

Some of the existing cultural classifications are not valid today. That is the case, as mentioned earlier, of those such as Ancón and Atacameña, which referred to a geographic area and not to a culture. Another classification that was not taken into account was that of Pachacamac, which refers to the archaeological site, and not to a cultural affiliation. Other classifications such as the broad "Peruvian" were, when possible, narrowed down. In seven cases the Peruvian classification was erroneous, and those remains have been reclassified as Tiahuanaco and associated to a more likely Bolivian, rather than Peruvian, provenience.

Graph 13: Mummies Organized According to Contemporary Cultural Affiliation.



Once the reclassification was carried out, the Chancay and Lima affiliations became the most common, with the first two including twenty-six and twenty-three individuals, respectively, and by far the biggest groups. The Tiahuanaco (nine), Arica (six), Wari (seven), Muisca (three), Inca (three) and Chinchorro (three) classifications make up the second largest group; while Paracas and Chimu-Inca are last with only one individual each. When looking at the graph above, it becomes very clear that of the over a dozen cultures that are known for mummification in the Andes, only a fraction are represented in the sample. The possible classification is limited by collecting constraints; first, by the histor-

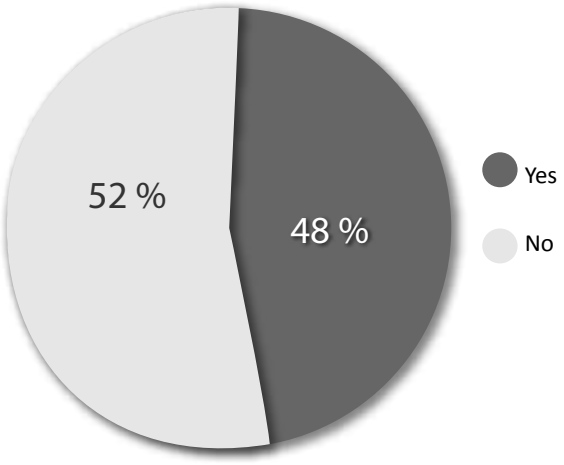
ical process that led collectors mainly to the central and southern coast, and secondly by the contextualization possibilities of the associated artifacts to the mummified remains. The professionalization of archaeology allowed many cultures to be identified individually and a series of diagnostic traits for their recognition to be standardized. Those standardizations are not always applicable to mummies, mainly because they are formed on the basis of ceramic analysis, and very often these classifications cannot be extrapolated to human remains.

The nuance in chronologies and the separation of data into a significant number of cultures in the Andes started at the end of the nineteenth century and were consolidated in the early twentieth century. Early chronologies of Peru, for example, include Uhle's 1910 classification (Ramón Joffré, 2005), followed by Kroeber's in 1944, and Julio Tello's in 1942. A series of attempts after the early chronologies are noted, culminating in the most widely used chronologies today, those proposed by John Rowe (1952) and Dorothy Menzel (1964), and much later Luis Lumbreras (1969) and Peter Kaulicke (1994).

The chronologies cited above however are not reflected in these early collections of remains, neither in the archival data nor in the possibilities of contextualization.[67] Therefore, only a small number of those cultures mentioned can be directly linked (especially by textile work) to the mummified remains found in the collections analyzed in this research.

The diagnostic traits considered to re-contextualize the mummified remains within the methodology of this dissertation, and described in chapter 3, were various. Possible diagnostic traits for individual remains were also recorded and integrated into the working database. The percentage of remains that presented a diagnostic trait versus those that did not is shown in the graph below:

Graph 14: Percentages of Mummies That Exhibit Diagnostic Traits Versus Those That Do Not.



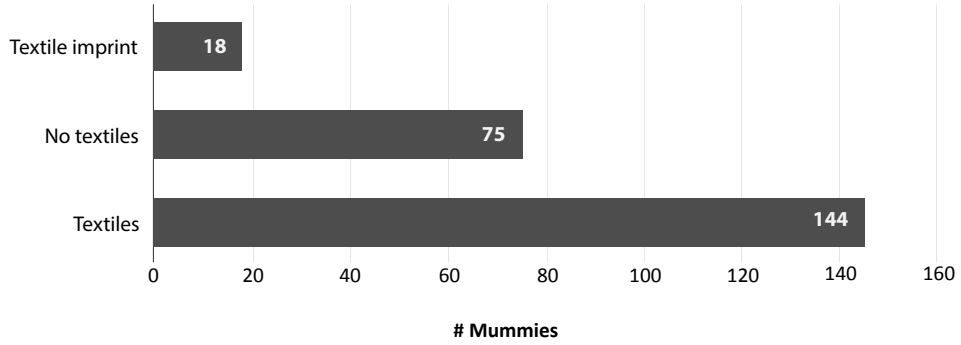
67 The reasons why will be further discussed in the next chapter.

More than half of the remains examined lacked a trait that could be considered sufficient to contextualize them. That includes textiles that were plain, bundling or burial techniques that were not specific to a area or culture, and lack of associated artifacts.

Of the total eighty remains that were reassigned, four were contextualized by other researchers, as is the case of the Gothenburg Chinchorro mummies and the Muisca mummies at the British Museum (Arroyo, 1990). The remaining 48% included in the graph above, correspond to a total of seventy-six individuals identified by traits recorded during the inspection.

As has been mentioned in chapter 3, in the vast majority of cases, the diagnostic trait used was the type of textiles associated or directly in contact with the mummified remains. That is not particularly surprising when considering that out of the 237 individuals in the collection, a total of 142 (or 59%) individuals either included or were associated with textiles. Furthermore, another 8% included textile imprints, which implies that the textiles of the bundles were removed from the remains during or right after collection.

Graph 15: Number of Individuals That Have Textiles As Diagnostic Traits for Contextualization.



Other diagnostic traits which were thought relevant proved of little use when trying to contextualize remains. Braids, for example, recorded as important in eight cases, were only once treated as diagnostic for individual, 71.1886.174.3 from the Quai Branly collection. This was the mummified head of a juvenile. The only associated textiles were “green” cotton threads wrapped on the ends of three braids that made up the front hairdo (two on the right side, one on the left side), and on the end of the braid “nest” that covers the back of the head. The head is covered with interconnected loose braids of different sizes. The right side has at least six braids, one of them making a similar “net or nest” pattern as the one in the back of the head. Well-recorded hairstyles from the area of Arica allowed for this mummy to be contextualized by this means, but that was the only exception.

It was at the beginning of this research that association between collections would help contextualize remains. However, only three cases of a definite connection between two museums were found,[68] all from the Danish National Museum collection. Two of the remains were fully bundled mummies that had been traded with the Trocadéro museum, and one was a false head and textiles exchanged with the Berlin museum.

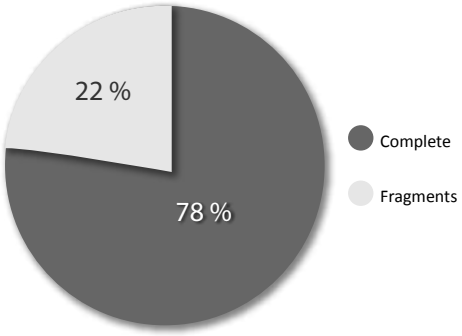
6.2 Who Are You?

Once the provenience and cultural affiliation of the remains were disentangled, as well as the diagnostic traits that helped with their contextualization, the demographic aspects of the collection needed to be explored. Following the framework of object biographies, the case of human remains presents the unique possibility to look at demographic data such as age at death and sex. Ideally, stature, pathological conditions, ancestry markers, and mummification techniques such as evisceration could be recorded from these types of remains, but that could only be done with a homogenous set of CT data access to all remains.[69]

Considering the data available for all remains, this section is dedicated to looking at sex and age at death data, as well as other physical attributes of the remains (size, type and completeness). This is done in order to get a better grasp of the characteristics of the remains collected and to allow further discussion into the use and validity of these remains for future research as is addressed in the following chapter.

The first relevant information has to do with the completeness of the remains.[70] Of the total individuals in the sample, most account for fully complete remains (78%), while 22% is made of fragments of mummified individuals.

Graph 16: Percentages of Mummies That Are Complete, Versus Those That Are Fragments of Bodies.



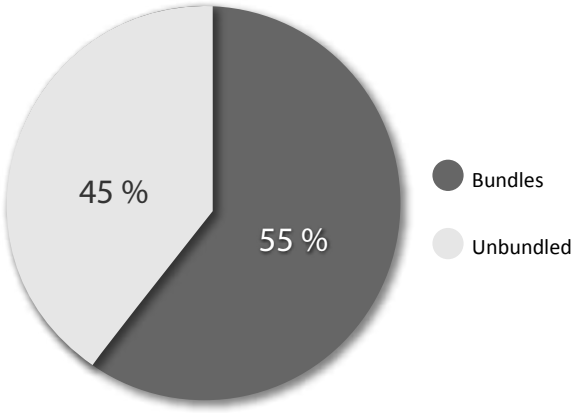
68 The number of recorded exchanges is surprisingly low, especially given the collector and site connections between collections. A discussion on the importance of this low number of connections between collections will be further explored in the next chapter.

69 This has been argued in some detail in chapter 3. However, it was necessary to note it here in order to introduce the types of demographic data that was looked at in the collection.

70 The criteria for what is complete or fragmented can be found in chapter 3.

These percentages indicate that, including the empty bundle located in the Austrian collection, 173 remains count as complete and can be measured in regards of size, as well as compared in terms of being full bundles or unbundled remains.

Graph 17: Percentages Bundled vs. Unbundled Mummies.



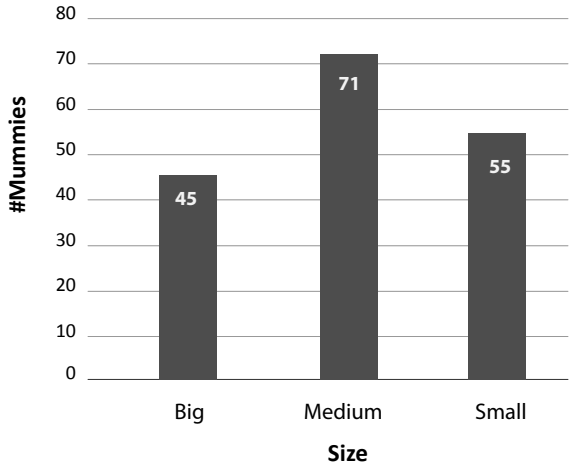
The percentage of bundled and unbundled individuals is very similar, with 10% more of bundled individuals. The quantity of unbundled individuals signals the practice of separating the human remains from the associated artifacts that surrounded them, both before and after collection. Textiles are the majority of those separated artifacts and are considered within the subsection on collection changes later in this chapter.

For the total complete remains, size estimation could also be conducted. Sometimes through the measurements already conducted as part of the inventories held at the museums, others measured personally and classified in large, medium and small as indicated in chapter 3.

The largest group is that of medium-sized remains, which account for seventy-one individuals or 42% of the total. The second group, with fifty-five entries, is the small-sized remains, or 32% of the total. The third is the large remains that account for 26% or forty-five individuals.

The classification of the remains in terms of size is very important because it is their size that allows for different methods of transportation and storage. This is relevant both in contemporary scenarios as it was in historical times, or the time of collecting. The discussion of transportation of mummified remains across the Atlantic was initiated in the previous chapter. The information presented in the graph above introduces a more tangible measure of the size characteristic of those remains transported and the possible challenges involved in their transport from their site of collection. This will be further discussed in the next chapter.

Graph 18: Number of Mummies Organized by Size.



The size of the remains is also relevant when considering the limitations of age estimation for those mummies that are fully bundled and that cannot be examined using the tools of bio-archaeology. Bundle size is very often correlated with the size of the remains inside it, meaning that more often than not, big bundles have been classified as adult individuals, while small bundles have been classified as younger groups, or considered as such by curators. This is not always the case, as has been discussed by the author in previous works (Ordóñez et al., 2015). The inaccuracy of this correlation is also further addressed in the subsequent sections and the following chapter.

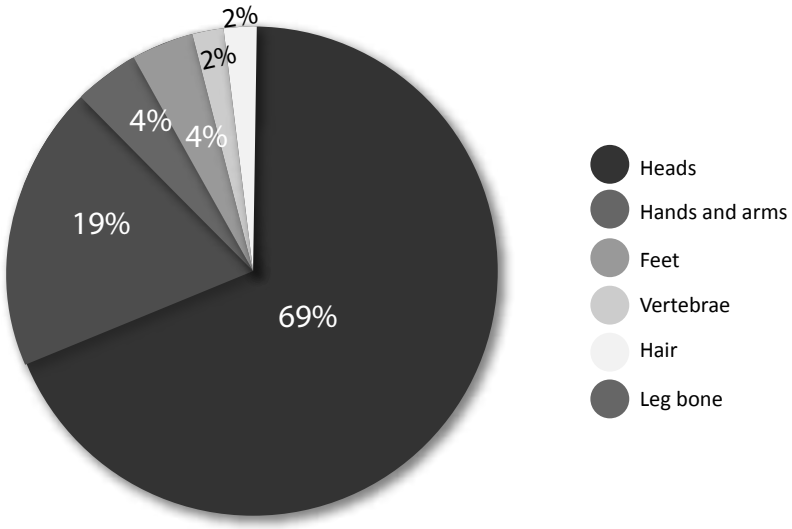
Concentrating on the incomplete remains of the collection, which account for 22% or forty-eight entries in the collection, size is not the most important consideration. Fragmented mummified remains are generally small in size, easily transportable and the hardest to contextualize, by far. All of the incomplete remains in these collections are smaller than the smallest bundle. Those fragmented mummified parts include heads, arms, legs, feet and hair. Separated or individually bundled heads account for the majority of the fragmented remains (thirty-three), followed by arms and hands (nine) as the second most popular fragment, though far behind. Only two feet have been recorded, one of them inside a sandal. Two isolated vertebrae are also uncommon but appear in separate museum collections, though neither of them was available for examination.

Hair is very common as a part of mummified remains collections; the Berlin collection is the clearest example of this trend, as has been addressed in chapter 3. However, the only piece of hair with an individual accession number was found as part of the Pitt Rivers collection, listed as a piece of scalp 2000.69.1, and which was also missing at the time of the author's visit to the museum.

There is valuable information to be gathered from fragmentary remains. Age at death can be estimated in broad terms for example from arms, legs and heads. Likewise,

sex can be assessed via the skull and as such most heads not completely covered with tissue can be sexed as well as aged.

Graph 19: Percentages of Types of Mummy Fragments.

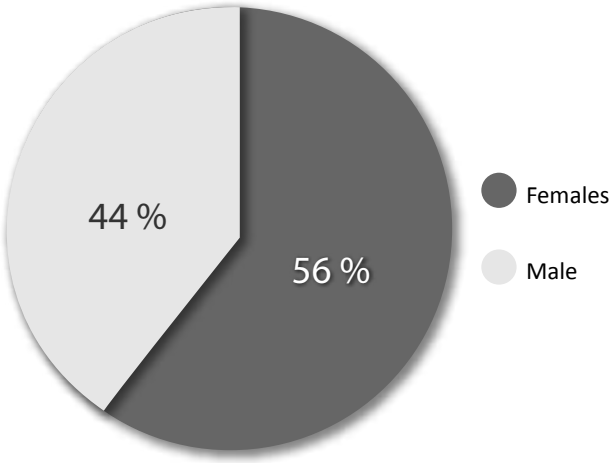


Sexing the mummified remains introduces a category that is greatly ignored in the original accession books data. More than the biological sex of the individuals, only a few entries on gender have been noted as present in the information available for the remains. This difference is very important as it refers more to anecdotal seller information than to a biological approach to collecting the mummified remains. Taking into account how specimens collected for anthropological collections for natural history museums and medical museums were assessed in terms of sex as a rule, this omission of data for mummified remains in ethnology museums may indicate an intention to willfully ignore this human aspect of the individuals collected.[71] Nevertheless, of the 217 individuals available for sexing, fifty-two could be sexed via CT, X-rays or visually.

It is interesting to note that in the archives, only 4 individuals had been assigned a sex. Though multiple mentions of gender roles were made by curators when referring to specific remains such as mother, father, weaver ('tejedora' as the female adj. in Spanish), or fisherman, those were not recorded either on the accession books or on the inventories. Of the four individuals sexed in the accession books, only one was accurate and it made reference to an unbundled mummified infant whose genitalia were exposed and hence left no doubt as to his sex.

71 This idea will be further discussed in the next chapter.

Graph 20: Percentage of Remains that Have a Sex Determination Versus Undetermined



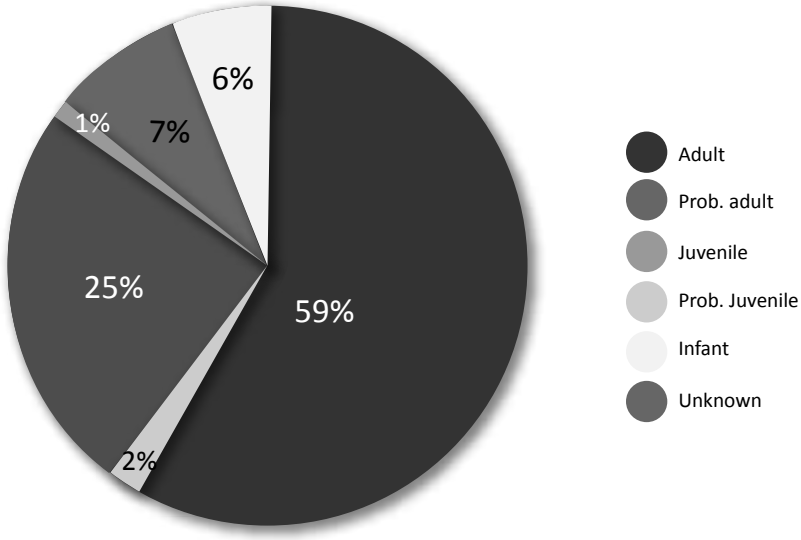
The way sex is attributed in the archival information shows that it was not of great concern at the moment of integrating remains into the collection. Nevertheless, both sexes are very similarly represented on the collections, with less than a 10% difference between them. Of the remains sexed twenty-nine were females and twenty-three males, that is a very small difference if there was no sexual discrimination of what got integrated into the collection. Perhaps the selection occurred in the field and was lost on the way, or perhaps funerary attire for both males and females was equally attractive to collectors and hence no difference occurred at the time of digging them out.

Age at death for the remains is another important layer in terms of what is collected as well as demographic representations within the collection. It is important here to return to a brief explanation of age categories as explained in chapter 3, as well as to the importance of age at death for the determination of the sex of the remains. Both categories are inextricably linked and need to be addressed together as collection markers. These categories are useful first in terms of expected size, and secondly in terms of what can be sexed.

In this case, the size of the remains was only sometimes accurate, in cases where the bundle had been weighted or where parts of the body could be touched through the bundle, the assessment was made clearer. However, for many others, age assessment was only possible through medical imaging.

Again the difference between information collected for this research and that available in the archives is striking. The only mentions of age determination in the archival data for mummified remains are references such as baby, child or, as mentioned earlier, of male or female indicating adult roles. There are no specific ranges given to remains, and it seems that many of the big closed bundles were assumed to be adult, judging by the references on accession books to the sizes of the remains.

Graph 21: Percentages of Age at Death of Remains.



6.3 How Are You Holding Up?

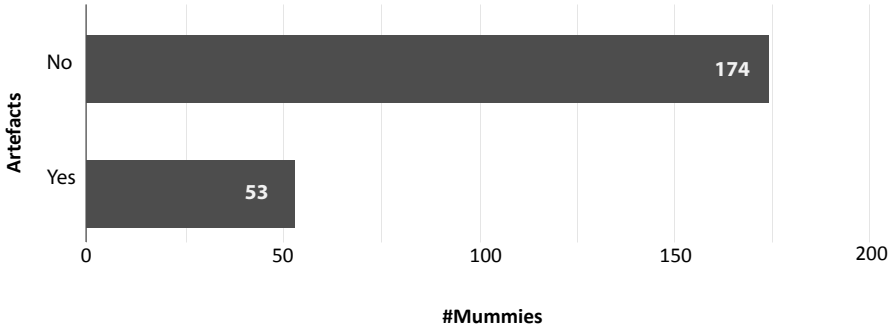
The state of preservation of the remains in museum collections greatly influences the demographic factors described above. How human remains are stored and exhibited is also inescapably linked to the way the remains have been kept over time. In their transport from archaeological digs to museum cabinets, the mummies in these collections have suffered, in some cases, dramatic transformations.

One of the first such transformations is the separation of the mummy from all other objects that accompany them in burial. The category of associated artifacts has been chosen to reflect the difference between mummies that are part of an assemblage of objects versus those remains that were collected on their own. Remains with associated artifacts are listed in accession books and catalogs in reference to those other parts of a collection. Sometimes the same assemblage may contain several mummies from one context, in others they may be part of an assortment of grave goods, an even part of a large donation with several mummies, grave goods and other curiosities.

In general, the mummies in the collections included in this research have not been kept in close relationship with other objects and artifacts. Of the total remains, only fifty-three individuals are associated directly to various types of objects outside of human remains collections. In contrast, 174 cases have no associated artifacts listed on their accession records or in the museum inventories.

Of those fifty-three artifact associations, the types of object listed in the collections that include mummies are varied. There are a number of artifacts that have been included in the lists of grave goods and donations that accompany the remains, from ceramic vases to desiccated corncobs.

Graph 22: Number of Remains With Associated Artifacts.



However, textiles are by far the most common, being present in thirteen entries. In some cases, the same textiles that have been removed from a bundle are integrated into the collection as separate artifacts (MAMF- MA023 Granada). In others, rolls of neatly folded textiles are sold in conjunction with already bundled remains (case 71.1878.2.814 Quai Branly), suggesting they were either part of the grave goods or collected closely to them.

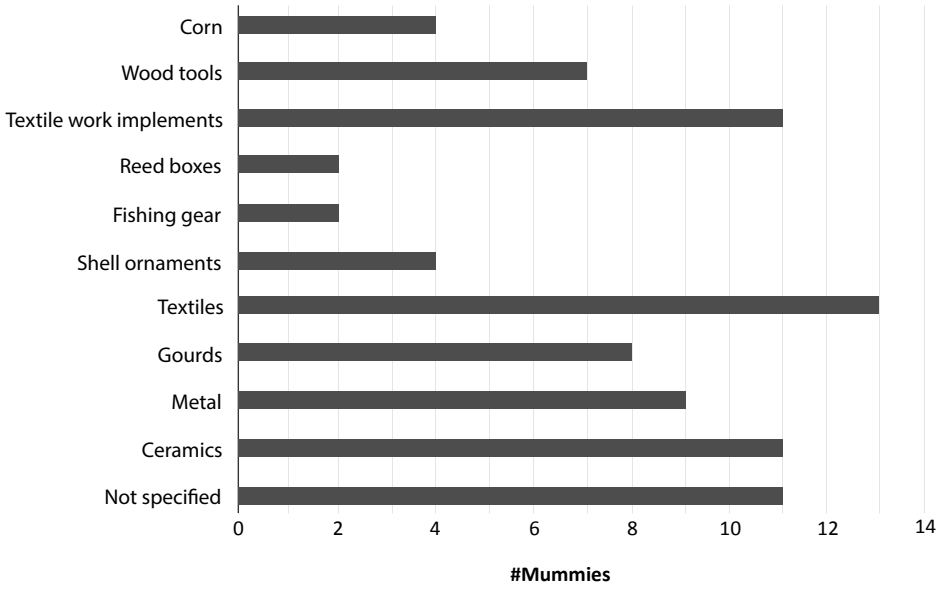
Textile work implements are a close second in terms of associated artifacts (eleven cases). Those include balls of cotton strands and loose packages of wool, needles, spindle whorls, and spindle sticks with thread already on them. Ceramic vessels, utilitarian and rough looking as well as elegant ones, have also been noted. In most cases, collections that include ceramic vessels are listed as containing the grave goods of a burial, indicating which vessels belongs to which individual in multiple burial collections.

Metal objects, crowns, necklaces, rings, nose rings and pendants are all associated with remains. In some cases, because they are made of precious materials (gold and silver mainly), they have been removed from the remains and placed elsewhere. In others, jewelry or decorations made of cheaper materials such as copper, have been kept with the remains and can be seen either on them but with a separate tag (and hence inventory number), or by themselves.

Gourds, or carved pumpkin vases, are also present in a significant number (nine in total) as associated artifacts. There are a number of remains that include small complete gourds and gourd-like objects within the bundles, especially infants classified with Lima as their provenance. But the majority of gourds found as associated artifacts are already carved gourds that could have served as drinking vases or containers.

Wooden tools such as large sticks, possible waist looms, combs and possible carving tools have also been described. Though in some cases the actual artifact is not described in detail (inscriptions of “wooden tool”, or “wooden artifact” are common in archival data), their presence is noted in seven cases in the collection.

Graph 23: Types of Associated Remains by Number.

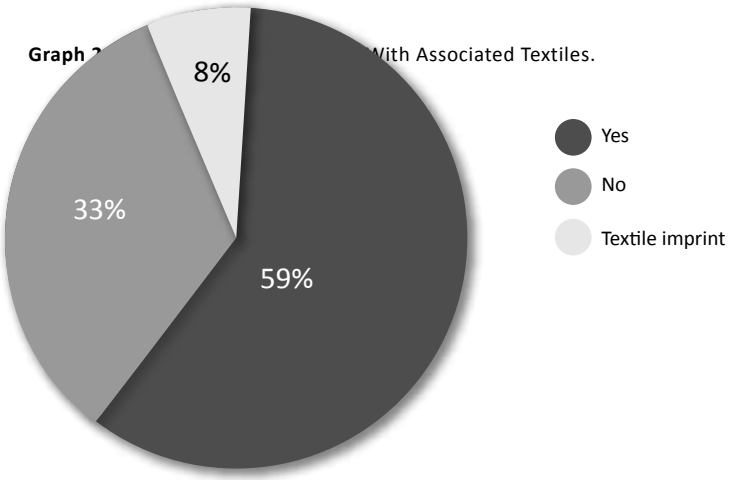


Shell ornaments and beads, as well as fishing tools and hooks also made of shell and bone are noted, the former in four cases, the latter in two. Other objects such as the desiccated corncobs have been recorded for four cases. Two reed boxes, one of them containing raw textiles, were also found with the remains. Though they could indicate textile work, the lack of direct association with textile implements has prompted a separate classification.

The reasons why certain objects are kept with the remains while others are separated from them is unclear. What it does seem to signal is the intentionality to keep remains in context with artifacts in some cases, perhaps to tell a full story of their collecting circumstances, while others are "stand-alone pieces." It is also quite possible that many collections arrived together at the museum, and the part of grave goods and associated contexts, later lost their connection as they were separated to better accommodate their storage. The complexities of collecting objects as varied as ceramic vessels and human mummies over such a long period of time may also aid in this separation of contexts.[72]

Overall, textiles are still the objects more commonly linked to remains and, given that they also represent the best contextualizing tools, it is useful to take a further look at their prevalence in the collections. Of the total 237 individual mummies in the sample, 226 have been recorded as either having, having had, or not having textile associations. The graph below summarizes in percentages the total for textile association and mummies.

72 Further discussion on this subject follows in the next chapter.



From the total remains, 59% or 133 entries record textiles on or with the mummies. While 8% or eighteen remains show clear textile imprints on the desiccated tissue, indicating that they were covered with textiles during the mummification process, it is unclear if those textiles were removed before or after the mummies' integration into the collection. Finally, 33% of the remains, seventy-five cases, have no visible textile association or textile imprints.

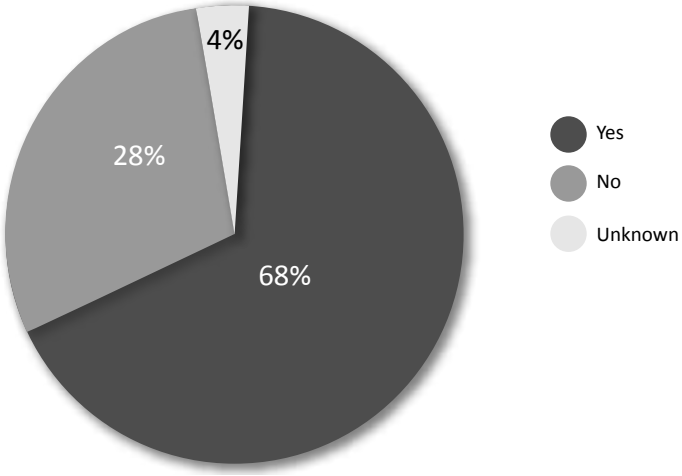
The removal of textiles covering bodies, or the opening of bundles, which results in unbundled individuals, is one of the clearest transformations these remains undergo when collected. Modifications such as unbundling, separation of body parts, and consolidation of the remains by means of metal wires, rods or wooden platforms have also been noted. These changes to the remains have occurred almost in every case during the earlier years of the collection, and are a response to issues such as storage, contamination, and a perceived continuing decay of the mummified remains.[73] Some of these treatments include quite dramatic solutions as arsenic baths or other chemical solutions.

A total of 155 cases, or 68% of the collected mummies, have undergone some degree of intervention in their original state. In 4% of the collection, the existence or lack of changes could not be determined. While in sixty-two cases or 28% there is reason to believe no significant intentional changes had taken place in the mummies.

As has been mentioned earlier, the most common modifications have to do with the removal of textiles covering the body or forming bundles. In 100 cases, the textiles had been clearly and cleanly, removed from the bodies, leaving either what is perceived as an inner layer of the bundle visible, or the tissue and osteological remains exposed.

73 Further discussion on these treatments can be found later in this chapter, as well as in the following chapter.

Graph 25: Percentages of Mummies That Have Undergone Changes After Collection.



In the case of body fragments, their separation from previous fully-mummified bodies post-mummification is evident from the cleanliness of the separation. In the case of heads, this can be seen in the lack of vertebral attachments, and in the case or arms and feet in the clean separation at the joints.

In two of those cases, the separation of the remains was conducted in order to perform a bio-archaeological examination, in order to look at osteological features individually rather than as part of a mummy.[74]

The two more common cases of transformation of the mummies in the collections have to do then with the separation of some part of the original mummy, either of the bundling or of the remains themselves. Both cases account for 149 cases or roughly a 96% of the total changes (64% and 32% respectively).

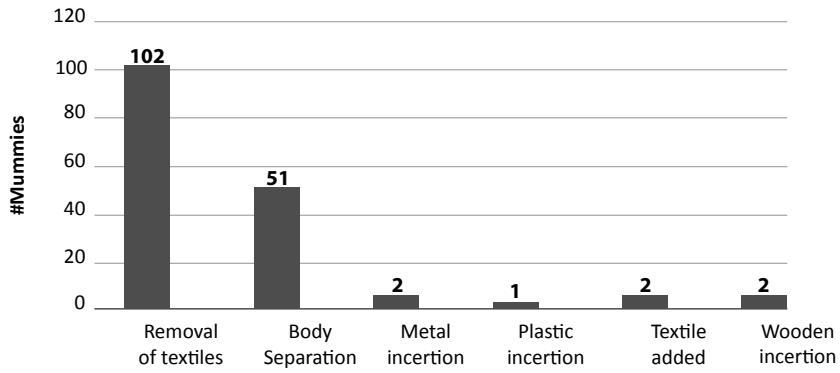
There are only two cases recorded where textiles were added to the remains instead of removed from them. In those cases, a headband has been tied around the mummies' head, presumably to make them look like part of the same context (they were sold to the museum in that state). The added textiles, however, are of modern construction and with designs that do not match the other textiles present and actually part of the remains. All other transformations have to do with the insertion of foreign materials into the remains, either to stabilize them or to hold them in a particular posture.

Platforms or modifications not permanently attached to the remains have not been included in this graph, as those can be replaced and changed in time. However, those that have been inextricably added to the mummies have been included in this analysis.
Wooden fixtures have been added to at least two mummies. In both cases, the wood was added to support the remains, once on a head to keep its overall structure, and once under a full, unbundled mummy to maintain a sitting position. In the first case, the remains

74 The use of such techniques and its validity for mummy analysis is further discussed in the next chapter.

have been plastered on top of the wood in such a way that to attempt to separate them would cause irreparable damage to the head. In the second case, though the wood could theoretically be removed, the remains have come to rest on the piece of wood in such a way that the removal of the piece would require a replacement with a similarly hard material to avoid collapse.

Graph 26: Changes Undergone by Mummies in the Collections by Frequency.



Metal insertions are more dramatic. In one case, two long metal rods were placed into an infant mummy along the spine to maintain an idea of the integrity of the remains. In another case, metal rods were placed into the joints at knee and arm levels to keep them in the original desiccated position. Semi-hard plastic was found in one of the remains, again an infant. The plastic had been placed inside the stomach cavity, possibly to keep the rounded shape of the aperture, over the mummified tissue.

The use of these types of techniques to keep the structure of bundled or unbundled individuals is not uncommon in natural history collecting practice. However, their use on human remains is more rare and should be considered carefully. Further discussion on the matter follows in the next chapter.

In terms of treatments applied to the remains, several considerations regarding when and how they were used came from conversations with the curators and conservators of the collections. The smells, perceived decomposition of the remains, as well as the insect activity that biological specimens can attract are cited as some of the concerns prompting these interventions.

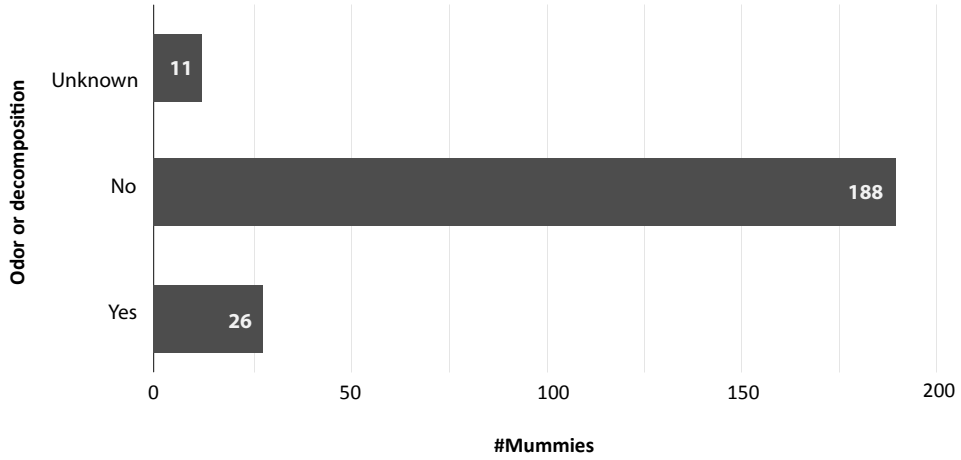
During the individual examination of the remains, the odor, the possible resins and adiopocere[75] concentrations that could be creating those odors and changes in the remains were noted. The existence of odor on mummified remains is in itself a noteworthy

75 A wax-like organic substance formed by the decay, in a wet and low-oxygen environment (anaerobic bacterial hydrolysis), of a dead body's fat.

fact. Similar collections in South America do not encounter these issues, or the issues have not been reported. This points to a conservation issue more so than to actual changes caused by the mummification process.[76]

The prevalence of these odors and adiopocere presence in the total collection, however, is not too high. Of the total, only twenty-six remains or 11% had either or both of these characteristics. In contrast, 188 mummies, or 84%, did not.

Graph 27: Number of Remains With Odor or Possible Decomposition Signs.

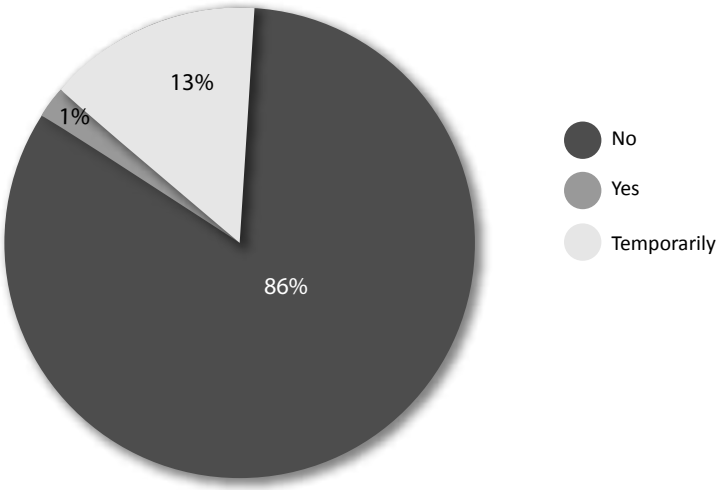


In general, all the changes to which the mummies in the collection have been subjected seem to obey either classificatory or storage needs of curators at a given time. The consequences of these needs on the state of preservation of the remains have the added effect of either encouraging or discouraging their use in permanent or temporary displays. Though ethical considerations have recently been the main reason why these types of objects are not part of most permanent exhibits, there is still an element of conservation quoted and taken into account for the decision to keep them in storage.

The determinant factors of what human remains in a museum are exhibited and why, have been explored elsewhere by the author (Ordoñez Alvarez, 2014). Nevertheless, it is interesting to note that there is no uniform approach to the exhibition of remains in the collections that form part of this research. Indeed, 13%, or 29 individuals, are exhibited permanently at the museums where they are held. Only one instance was recorded of a mummy that had been used, recently, for a temporary exhibit. The other 86% of the collection is no longer on exhibit, though almost all of them were part of permanent exhibits in the early years of their integration to the museum.

76 The comparison with South American collections as well as the possibilities of these decaying odors and perceptions will be further discussed in the next chapter.

Graph 28: Percentages of Mummies on Exhibition Versus Not Exhibited.



The numbers of exhibited remains point to a definite shift in the exhibition practice in contemporary museums. The exhibition contexts, associated artifacts shown with the remains, as well as the type of showcases in which the mummies are placed, define the relevance of the mummies within a museum exhibit.

As mentioned in chapter 3, the resources used to both exhibit and look into the mummified remains have changed dramatically over time. The introduction of video and touchscreens allows the public to interact with objects in a different manner than in a traditional exhibition. These changes in exhibition go hand in hand with the introduction of legislation, as has been discussed in chapter 3. In that regard, the advances in medical imaging technology have proven immensely useful for museums that want to exhibit the mummies in their collections. Similarly, the number of interdisciplinary researchers that use medical images to investigate Pre-Columbian human remains has risen significantly in recent years (Cox, 2015).[77]

77 The creation of specific venues for the presentation of mummy research, such as the International Congress on Mummy Studies, as well as national efforts like the German Mummy Project or the Swiss Mummy Project, are clear indicators of this enthusiasm for research.

6.4 Chapter Summary

The aim of this chapter was to highlight similarities in mummy collections when removing the individual circumstances that surround each collected object. It becomes apparent, by doing so, that the collections are not only comparable but that the joint consideration of the remains allows for a more nuanced look at the way these collections have transformed over time.

The identification of provenience, geographic and cultural, is only the first step to understanding these similarities. Demographic information is fundamental when comparing contemporary to historic classifications of the mummies within collections. Equally important is the consideration of the remains' states of preservation and their processes of conservation once integrated into collections.

In the following chapter, a discussion on the importance of these finds is undertaken, attempting to highlight those issues that are somewhat solved and those that require further analysis.