

In pursuit of the conservation of natural history collections. Training experiences with Latin American specialists

Rodrigo Ruiz Herrera*

*Coordinación Nacional de Conservación del Patrimonio Cultural
Instituto Nacional de Antropología e Historia

Abstract

My interest in the conservation of natural history collections was born during my professional training at the Escuela Nacional de Conservación Restauración y Museografía (ENCRyM). As a conservator and restorer of cultural heritage, I had the interest to expand my knowledge in this field, taking extracurricular courses in other countries (Argentina and Cuba). These academic experiences in other Latin American countries allowed me to get a deeper knowledge in the study of the preparation techniques and conservation processes in taxidermy, as well as the diversity and structure of the natural history collections, taking an emphasis on their conservation and intervention techniques. I had the opportunity to share experiences with other specialists who dedicate their lives to the conservation of this kind of patrimony, as well as to reflect about the extent of information the conservation field has to offer.

Keywords

Natural history collections; taxidermy; cultural and natural heritage; conservation.

Origin of a professional interest

I have always had an interest for nature and animals, having worked in a taxidermy workshop allowed me to learn how to turn different types of animals into sculptural pieces, where you freeze their nature in order to transmit it to the viewer. Later on, when I was studying to get a bachelor's degree in restoration of movable cultural heritage at the Escuela Nacional de Conservación Restauración y Museografía (ENCRyM) of the Instituto Nacional de Antropología e Historia (INAH), an academic interest in the conservation of scientific and academic collections awoke in me, in particular, the natural history collections. The experience with this kind of work allowed me to ponder on the concept of cultural heritage that extends to any object created by men, when they are recognized as such by a group or different social groups. This is where the scientific collections fit, when they are gathered and guarded by specialized groups. On the other hand, this approach allowed me to search in this kind of patrimony, the link between cultural and natural heritage, which ranges from natural areas and landscapes, where living creatures grow and develop, to objects created by men, when he modifies or preserves natural species.

Training experience in Argentina

With my first academic experience of training with specialists from different countries, I sought to underpin the construction of my professional interest. When I was studying the ninth semester of the degree, I had the opportunity to study at the Instituto Superior de Taxidermia y Conservación (ISTC)¹, under the direction of Pedro B. Viamonte, in Ezeiza, province of Buenos Aires, Argentina. This institution founded in 1970, is specialized in teaching of taxidermy and conservation of natural collections, being the only school of its kind in Latin America.

I took three courses in this institute: the Curso Profesional Taxidermista, in which you learn the basics of taxidermy that include topics like the preparation of a piece from the moment it arrives at the lab, and how to make a mold in order to build dioramas and make an assembly according to the anatomy of the animal. The Curso de Preparador Taxidermista, where the knowledge of taxidermy is refined and larger pieces and assemblies are worked on, in addition to learning other techniques, such as fluid preservation, osteotech and diaphanization. Finally, my training was complemented with the Curso de Conservación de Colecciones Científico Naturales in which topics of preventive conservation and museography where taught.



Figure 1. Carved polyurethane mold for mounting the taxidermy of a *grisón* (*Galictis* sp.). Imagen: ©Rodrigo Ruiz Herrera, 2015.



Figure 2. Taxidermy of a *grisón* (*Galictis* sp.). Image: ©Rodrigo Ruiz Herrera, 2015.

¹ Higher Institute of Taxidermy and Conservation (ISTC), Ezeiza, province of Buenos Aires, Republic of Argentina. For more information, you can consult the following link: <<https://institutosuperiordetaxidermiayconservacion.wordpress.com/>>.



My stay in Argentina was enriched by having the opportunity to visit the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET) in Buenos Aires, where I was able to meet the museology conservator Ignacio Legari, who is in charge of monitoring, preventive conservation and intervention of the collections on display. I also met Soledad Kankof, the person in charge of the biological collections, their preventive conservation and advising the 22 national biological collections that are preserved in this great building. They explained the museum's conservation criteria, how they care for the collections in general, and some specimens in particular, depending on their scientific value and/or dissemination value.



Figure 3. Taxidermy assembly process of the head of a large kudu (*Tragelaphus strepsiceros*).
Image: ©Rodrigo Ruiz Herrera, 2015.

This experience allowed me to appreciate in a wide spectrum the world of scientific collections of natural history, and to continue learning techniques and processes in different types of taxidermy, as well as their intervention and preventive conservation. This greatly enriched my training as a conservator of this type of cultural properties. When discussing and putting into practice the conservation criteria, making assessments and diagnoses to different cases, led me to appreciate the richness that these objects possess, in terms of their construction techniques, historicity, as well as aesthetic and/or scientific aspects.



Training experience in Cuba

The next step after finishing my degree was the presentation of my thesis, where I try to prove the viability of the conservation treatment methodology proposed by conservator Barbara Appelbaum, applied to the mammalogy collection of the Instituto de Biología (IB) at the Universidad Nacional Autónoma de México (UNAM). As I approached my universe of study, I realized the need to get more involved with the nature and conformation of this type of collections. With this objective in mind, I sought to attend the Course of Curatorial Procedures for Natural History Collections, given at the Instituto de Ecología y Sistemática (IES)² in Havana, Cuba. Master in Science, Nayla García Rodríguez, imparted the course.

The course consisted on theoretical classes as well as visits to the collections of the IES: National Herbarium; the Mycology Herbarium; and the Zoological Collections of malacology, entomology, arachnology, herpetology, mammalogy and ornithology, which are the largest and best represented of the archipelago. In addition, I visited the Acuario Nacional that houses the marine specimens, the Museo de Historia Natural de la Facultad de Biología de la Universidad de La Habana, the Museo de Historia Natural “Felipe Poy”, the Parque Zoológico Nacional, and the Centro de Conservación de la Oficina del Historiador.



Figure 4. Different examples of taxidermisted birds. Museo de Historia Natural, Facultad de Biología, Universidad de La Habana, Cuba. *Image: ©Rodrigo Ruiz Herrera, 2018.*

² Ecology and Systematic Institute. For more information consult: <<http://www.ecosis.cu/>>.





Figure 5. Exhibition hall, Museo de Historia Natural Felipe Poey, La Habana, Cuba. Image: ©Rodrigo Ruiz Herrera, 2018.



Figure 6. Some specimens of gastropods, national collection of malacology. Instituto de Ecología y Sistemática, La Habana, Cuba. Image: ©Rodrigo Ruiz Herrera, 2018.



Figure 7. Preserved skulls of *Eumops ferox* bats. Mastozoological collection, Instituto de Ecología y Sistemática, La Habana, Cuba. Image: ©Rodrigo Ruiz Herrera, 2018.



Figure 8. *Macrotus waterhousii* gray, taxidermied in the 19th century. Museo de Historia Natural Felipe Poey, La Habana, Cuba. Image: ©Rodrigo Ruiz Herrera, 2018.



The theoretical classes about the curatorship and management of natural history collections allowed me to have a broader vision about their conformation, order and normativity. In addition, I learned the particularities of its preventive conservation, main causes of decay, and how to carry out direct interventions without altering the biological information of the specimens, thus allowing the scientists to continue with their investigations. Moreover, I learned to delve into the role these collections keep as cultural and natural heritage, becoming "testimonies of human creation and the evolution of nature" (García, 2018).

The topics of the theoretical classes complemented with visits to the different collections, resulted in a very vast learning experience, nurtured with the voice of the curators and conservation staff of each one of them, thus expanding the information about the repertoire in question and the problems and realities that each one confronts daily. With this, it was possible to obtain a more in-depth view of the role of the conservator-restorer as part of the organic life within a collection of natural history. About the professional contributions such as the intervention of specimens, I learned about inferring the ideal conditions for the conservation of a scientific collection according to their reality, and with this, influence on its management plans; furthermore, recognizing the scientific and cultural values that contribute to society, as part of its natural richness and identity.

Conclusions of these experiences

Firstly, I must highlight the value of these experiences with Latin American specialists, as well as the relevance of sharing cultural and political realities, which are the starting point to also understand our differences, that were always evident at the time of the courses, when executing processes and when exemplifying our problems. That, in turn, helped me complement the knowledge and skills I acquired by comparing and applying them to Mexican case studies.

I particularly appreciate, having the chance to meet professionals so willing and so committed to teaching, and incredibly generous with knowledge, during these academic exchanges. They were always willing to clarify my doubts or go into detail about the topics we discussed. This knowledge has been fundamental to the way I now approach the conservation of these collections in Mexico.

From extracted specimens of nature, that when transformed into objects, allow a multitude of analysis, hypotheses and interpretations (Aragón, 2012: 374), I was able to share with these specialists, the different possible approaches to natural history collections and their conception as cultural and natural heritage. I was able to understand these collections relevance as part of the evolution of man's knowledge and their contribution to society, science, art, education, history and culture.

The conservation field has a lot to offer to the study of natural history collections. Given the level of specialization that is achieved when looking after them, it makes possible the identification of the manufacturing techniques in the preservation of specimens, the analysis of materials and their deterioration, the attention to preventive conservation conditions, among others. In addition, it is possible to stablish preservation criteria and recognize the values within the collections, as well as the impact these values have in their conservation given their scientific, dissemination or aesthetic purposes.

Therefore, what began as curiosity has strengthened and became a serious professional interest. The first outcome of this work will be the conclusion of my thesis, and it will be greatly improved by adding my experiences in the field of taxidermy and conservation of natural history collections.





Acknowledgements

In these experiences, I have to thank:

MSc. Pilar Tapia López, professor at ENCRyM, who was my mobility tutor during my stay at the ISTC.

My teacher Pedro B. Viamonte, Director of the ISTC, in Argentina.

MSc. Nayla García Rodríguez, who opened the doors for me at the IES, in Cuba.

References

Aragón, Santiago (2012) "Las colecciones universitarias de historia natural: un recurso docente de permanente actualidad", in Juan F. Beltrán, Mercedes Conradi, Juan J. Gutiérrez and Margarita Rodríguez (eds.) *Nuevos estándares en la innovación docente en Historia Natural, Actas del I Congreso Internacional de Innovación Docente Universitaria en Historia Natural*, Seville, Universidad de Sevilla.

García, Nayla (2018) Tema VII. Las colecciones de historia natural como parte del patrimonio natural y cultural de la nación, clase teórica en el marco del Curso de Procedimientos Curatoriales para Colecciones de Historia Natural, Instituto de Ecología y Sistemática, Havana, Cuba, June.

