The Animals at Lockwood Manor

Digital read along pack



Made by Gracie Price.

All quotes are from The Animals at Lockwood Manor by Jane Healey.

Welcome to The Animals at Lockwood Manor Read along pack.

The aim of this pack is to share some of the real-life science, experience and history behind topics discussed in the book.

How this digital read along pack works:

- There are 10 bookmarks which you can view in this PDF:

P.14	P.232		
P.49	P.233		
P.110	P.315		
P.159	P.337 (End)		

- As you go along there are prompts to share your thoughts either on social media or within your book club.
- You will also find links and recommendations for further reading you can explore in your own time.

If you would like to share your thoughts with me as you read along tag me on Instagram @Magnifying_reader

"This was their chosen sacrifice: where other owners of country houses would be preparing for evacuated children and babies, the Lockwoods would receive a quiet menagerie" p.14

Why do you think the Lockwood family has allowed the Natural History Museum (NHM) to store their specimens in their house?

Open the catalogue record to discover how the NHM really protected their objects during WW2



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GLOSSARY



Chiroptera - The order in which bats are found, it translates as 'hand-wing' referring to the bats wings.

Insectivora - now obsolete this was used to group mammals which subsist primarily on insects.

Marsupialia -Scientific name for marsupials such as kangaroos and opossums.

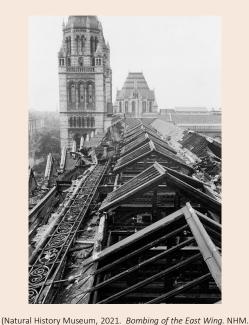
Cetacea - aquatic mammals such as orcas and blue whales.



Catalogue Record

During World War 2, the Natural History Museum did send some of their objects to country estates to protect them from bombing. Larger specimens which couldn't be transported, including some of the skeletons, remained in their displays protected with sandbags.

The museum experienced several bombings, one of which damaged the east wing of the museum, which held the botany department and herbarium. Many of the objects and books were lost in the resulting fires. Almost every display case suffered from shattered glass, which became embedded within the fur of taxidermy specimens.



Available at: https://www.nhm.ac.uk/discover/the-museumduring-wartime.html.)

Where to read more:

- www.nhm.ac.uk/discover/the-museum-during-wartime
- iwmvolunteerlondon.wordpress.com/2019/01/02
- A Museum at War: Snapshots of Life at the Natural History Museum during World War One, by Karolyn Shindler

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What do you think has happened to the Leopard? Has it been stolen?

"Places where fur had worn away, thread or glue had loosened, eyes had become scratched or dull cabinets bashed or rotten." p.42

Can you think of a "bad" taxidermy you have seen? After reading this chapter would you change your thoughts about it if you saw it now?

Turn over to see examples of how taxidermy can deteriorate over time



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The Victorian hummingbird case



Not much is known about the origins of the Victorian hummingbird case on display at the Natural History Museum. It may have come from William Bullock's personal museum which was sold in 1819.

There are at least 100 hummingbirds within the case. To Victorian collectors, hummingbirds were valued for their jewel qualities, often being displayed in abundance (Syperek, 2015).

Turn over to see where you can read more!

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Specimen of the month: Hummingbirds

A great blog post from Amy Freeborn about some of the Victorian hummingbirds in the NHM collections

tinyurl.com/specimenof-the-month

Jewels of the Natural History Museum P.163-204

This is a PHD discussing gendered aesthetics in the Natural History Museum. This chapter in particular discusses the Gould hummingbird collection which contains over 300 specimens. It also touches on the Bullock Victorian hummingbird case too.

tinyurl.com/Jewels-ofthe-NHM



Why is Hetty so protective of the collection? Do you think it is through loyalty to her job or another reason?

"In the centre of the jagged hole I could see a bare branch and the empty space where a handful of hummingbirds had sat only this morning." p.109

Sadly, theft isn't uncommon in museums, they often hold valuable objects that are desired by collectors.



Turn over to read about two famous cases of museum theft



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In 2019 three jewellery sets were stolen from Dresden's Green Vault museum, the pieces have not been recovered so it is likely they were broken up and distributed (BBC, 2020).

In 2009 a German flautist broke into the Natural History Museum, Tring and stole over 300 rare birds. The reason? to make flies for salmon fishing. Edwin Rist was ordered to pay £125,150 - the estimated amount he made through the sale of the stolen birds.



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The taxidermy specimens appear to be moving in the night. What do you think is causing it?

Can you think of another book, film or TV programme that uses taxidermy to create tension?

List them below:

Turn over to learn more about the use of taxidermy in film

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Taxidermy is often used as a physical representation of psychopathic traits in film, TV and books. One of the best examples is the character of Norman Bates in Psycho who is an amateur taxidermist. This use of taxidermy in media can build tension however, it can feed into the negative perception of the discipline.



In 2019 the film Stuffed was released, it celebrates taxidermy as both an artform and science.

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"The environment inside Lockwood Manor was not an ideal location for the specimens." p.232

There are 10 agents of deterioration which put collections at risk. How many have appeared in the book so far?

Fire

Water
Pests - both insects and mammals
Pollutants
Temperature
Humidity
Light
Dissociation - loss of data relating to objects
Thieves & vandals
Physical forces impact, shock and vibration

Turn over to learn more about pest management



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In museums and historical buildings, **Integrated** Pest Management (IPM) systems are used to monitor pest activity. It involves preventative measures such as improving storage, monitoring temperature and humidity and monitoring the number of pest species using traps (AMNH, 2021).



You can learn more about the agents of deterioration from the Canadian Conservation Institute (2017) here: tinyurl.com/Agentsof-deterioration

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Taxidermy is a technique which sits within the world of science and art, however, it is often not celebrated in either discipline.

Artistic skill is needed to create an accurate armature and to sculpt and arrange the final piece in a way

that brings the animal

back to life.

An understanding of nature and the science involved in the preservation process is also needed however, to ensure

accuracy in the piece.

Use the miniature guide to modern taxidermy to discover the process of taxidermy.



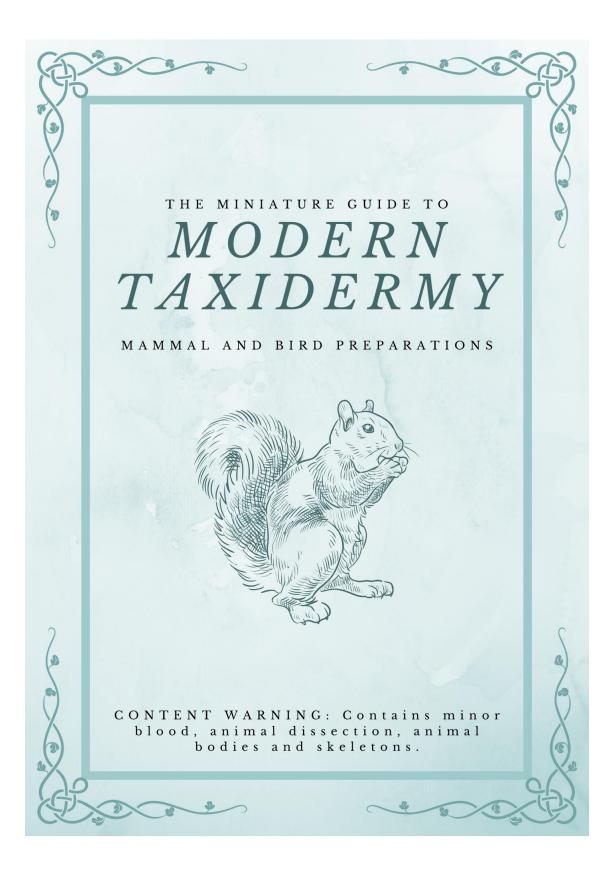
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Until as recently as 1960, arsenic was used within the production of taxidermy and applied as a pest treatment in museums (Omstein, 2010).

The timeline for the Animals at Lockwood Manor makes it very likely that Hetty is using arsenic compounds to fight their pest infestation.





BOTH OF THESE TAXIDERMY PIECES WERE CREATED ON A TAXIDERMY COURSE WITH JAZMINE MILES-LONG.

THE ANIMALS WORKED ON DIED DUE TO NATURAL CAUSES.

(All photos are authors own)

Bird Taxidermy



Stage One - Skinning

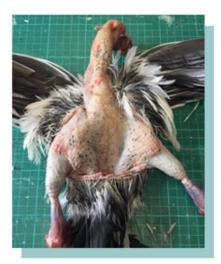
In birds, the incision is typically along the chest, where the feathers are often thicker and can hide the final stiches easily.

[You won't see the internal organs, unless the piece you are working on has internal damage from their cause of death or you want to use them for scientific research.]



At this point, the legs and wings have been detached from the main body however it is still connected by the skull. In a piece of bird taxidermy, the skull, leg and wing bones are all original where possible.

Once the body is detached from the neck it is measured, recorded and kept in a freezer prior to making the replacement.



Once the bird has been skinned it looks like this, any muscles left on the bones is removed and the fat is scraped away from the feather tracts poking through the skin.

Excess fat left in a bird taxidermy can cause discoloration or loss of feathers in the future.

Stage Two - Prepping



Different taxidermists will use a variety of materials for the body of a taxidermy piece. Common materials are wood wool, a pre-made form or balsa wood.

For this piece balsa wood was used, in total there are four pieces which have been shaped against the original body. In this case they were adhered together with superglue due to time restraint although wood glue is more typical.



This is the finished body with the neck in place which is made using wire wrapped with cotton wool to replicate the missing muscles.



The skin is washed in a taxidermy soap with some added salt, this removes more of the excess fat, blood and helps preservation.

[Throughout the skinning process Borax is used to aid gripping, this also aids in preservation.]



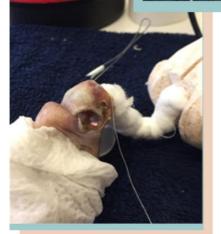
Before and after drying briefly with a low-heat hairdryer

Stage Three – 'Stuffing'



Wires are run along the remaining wing and leg bones. The muscles are built up in the same way as the neck, with cotton wool and thread.

To provide a mounting point for the final piece, the leg wires are run through the pad of the foot.



The neck wire is attached into the skull using hot glue to fill the cavity. The eyes are inserted into the sockets using clay with low shrinkage.

Eyes are pre-made by a variety of companies and the taxidermist matches the style to the species and size of the individual bird. They can be made of either glass or acrylic.



The wires get inserted into the balsa wood body where they are secured in position, at this stage the final starts to take place.

The incision is sewn up with a cotton thread and the feathers on the chest cover the incision.

Stage Four – Finalising



The final taxidermy is added to the mount using the wires coming out of the feet. This is where the pose is finalized. The feathers are aligned and organized into a natural appearance.



Card and wire are used to hold the crest and tail feathers in position whilst the taxidermy dries. The feathers can be monitored whilst they dry to ensure they are in the right position.



The final chicken

Mammal Taxidermy



Stage One - Skinning

Mammals often have more signs of damage than birds when working with ethically sourced specimens. In the case of this squirrel, which was hit by a vehicle, there was some damage to the skull.



For mammal taxidermies the incision when skinning is made down the back where the fur naturally parts. This makes it easier to put the skin back over the new form later.

> [If this was a study skin specimen, the incision would be made along the stomach to avoid damaging any key fur patterns.]



In mammal taxidermy the skin is completely removed from the body, the skull will later be cleaned to use in the final piece. The claws remain in the skin as these are used in the final taxidermy piece.

Stage Two – Prepping the body



Different taxidermists will use a variety of materials for the body of a mammal taxidermy piece. Common materials are wood wool or a pre-made form.

For this piece wood wool bound with cotton around a wire frame was used, the body, limbs and tail are all made using this technique.



Because of the broken skull on this piece, caused by the way she died, a replacement was made using balsa wood. The replacement was carved to match the original and eye sockets added.

At this stage, the form starts to take the final position. The skull is secured and bound into the body using more wood wool and thread.



Stage Three – Tanning



After de-fleshing the skin which involves removing excess muscle and fats the skin is rinsed and then tanned.

The type of tanning fluid and length of time in the tanning fluid is influenced by the species. For the squirrel, the tanning fluid was left on the skin overnight.

Stage Four – Mounting

As with a bird taxidermy, the skin is stretched around the replacement body with the wires extending out from all four feet, to be used in the final mounting.

The ears are split internally, and clay is inserted which helps the skin to keep its shape. The mussel is also built-up with some extra clay and, in the case of the squirrel, the visible front teeth are replaced.



"'Fire!' someone screamed. 'There's a fire!'" p.314

How do you think the fire was started? How might this moment change Hetty's life?

Fire can be one of the most devastating disasters museum and heritage institutions face. In a short space of time it can wipe out collections of cultural importance.

In 2019 the world watched as Notre Dame burned but it isn't the only cultural site to suffer extensive fire damage in recent years.

Turn over to read about the Brazil National Museum Fire



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In 2018 the Brazil National Museum caught fire, destroying 200 years of research and knowledge in a single night. Of the 20 million objects in the museum, almost 90% were lost including many natural history specimens.



⁽Photo: BBC News, 2018)

A faulty airconditioning system was all it took for the majority of Brazil's national collection to burn away in six hours.



END

"What would grow from the ashes here what plants would feed on animals that had never stalked this land, never taken a breath here, but instead been dragged, dead, to stand in its dusty halls?" p.329

What do you think the main theme of the book is?

How has taxidermy been used in the narrative to illustrate this?

> Turn over to see where you can learn more about taxidermy



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Taxidermists on Instagram:

@jazmine_miles_long @ellekayetaxidermy @gotham_taxidermy @allis @specimenspod @georgedante @iot_studio

Natural history Museums on Instagram:

@smithsoniannmnh @colezoologymuseum @morethanadodo @nhm_tring @natural_history_muse um

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Conservation or natural history YouTube channels:

The Brain Scoop
The Conservation
Starter
Natural History
Museum; Behind the
Scenes series



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FURTHER	REFERENCES
FURTHER READING Where we belong the Museum Makers Mon-fiction discussing museums and taxidermy Where Room No.1 he Authentic imal he Feather Thief the Afterlives of simals	 S Omstein, L. 2010. Poisonous Heritage: Pesticides in Museum Collections. Thesis. Available at: scholarship.shu.edu/theses/253 C AMNH, 2021. Integrated Pest Management. Available at: www.amnh.org/research/natural-science-collections-conservation/general-conservation/preventive-conservation/integrated-pest-management BBC, 2020. Dresden Green Vault. Available at: www.bbc.co.uk/news/world-europe-55253873 Freeborn, A. 2014. Specimen of the month #5 Hummingbirds. Available at: www.nhm.ac.uk/natureplus/blogs/behind-the-scenes/2014/08/26/specimen-of-the-month-5-hummingbirds.html Syperek, P.K.C. 2015. Jewels of the Natural History Museum. Ph.D. Thesis. UCL. Available at: discovery.ucl.ac.uk/id/eprint/1471589/1/Pandora%20Kathleen%20Cruise%20Syperek%20Jewels-finaltextonly.pdf
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