

Beyond the Bars of the London Zoo: Curating, Collecting, and Classifying Animals at the Zoological Society of London, ca.1847-1903

Submitted by Daniel Phillips, to the University of Exeter as a thesis for the degree of Doctor of Philosophy in History, February 2024

Declaration

This thesis is available for Library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

I certify that all material in this thesis which is not my own work has been identified and that any material that has previously been submitted and approved for the award of a degree by this or any other University has been acknowledged.

Signed: Daniel Phillips

Abstract

The Zoological Society of London (ZSL) and its gardens, better known as London Zoo, is one of the oldest modern zoos in the world. Founded in 1826, the Zoological Society of London played a significant part in the development of scientific research during the nineteenth century – and has continued to do so today. At first a private 'garden', London Zoo (officially established in 1828) eventually opened to the general public in 1847, which, at the behest of the society's newly elected secretary, David William Mitchell, completely transformed the gardens' appeal. From then on, the Society's outlook changed, accelerating the commodification of zoological recreations in the gardens' space. In order to sustain this collection, however, the Society relied on a variety of benefactors, which, as the century progressed, became increasingly associated with the British Empire. These factors had a profound impact on the development of the ZSL, affecting the way the Society portrayed its animals in the gardens. This thesis examines the development of the Zoological Society of London and its gardens in the second half of the nineteenth century, exploring how the ZSL shaped (western) understandings of the natural world. Central to this study are three historical discussions, the nature of science, the animals' place in historical studies, and the global imperial context in zoo histories, which collectively address key components of the ZSL's history. All three themes speak to how the ZSL curated, collected, and classified its animals, which, in turn, influenced understandings of the natural world. As a site for animal encounters, the zoo was all at once a place of scientific endeavour, popular entertainment, and imperial experiences. The thesis will therefore slither, fly, and gallop beyond the enclosure space, examining five animal species - hummingbirds, hippopotamuses, elephants, giraffes, and okapis – to uncover how the Zoological Society of London influenced (and ultimately continues to influence) perceptions of the natural world.

Acknowledgements

Firstly, I would like to thank my supervisors, Dr Gajendra Singh and Professor Nandini Chatterjee, who have supported me throughout my PhD. Your advice, words of encouragement, and enthusiasm have been a source of inspiration throughout the project. I would also like to thank the University of Exeter for awarding me the College of Humanities PhD Studentship, as well as the extended Covid-19 funding awarded through the University of Exeter, as the funding body of this research project.

The majority of my research was conducted at the Library and Archives of the Zoological Society of London, to which I am greatly indebted. My thanks go to Ann Sylph, Natasha Wakely, Emma Milnes, and Sarah Broadhurst for all their help in finding, collecting, and talking me through the mountain of documents I requested. Other libraries and archives I wish to thank include the British Library, the National Archives, the Natural History Museum Library and Archives, the City of Westminster Archives, Lambeth Archives, the Archives of the Linnean Society, Brighton and Hove's archives service The Keep, the Museum of English Rural Life Archives, and the Powell-Cotton Museum Archives.

I would also like to thank my family for all the support they have given me. A special thanks to my wife's aunt, Professor Jane Everson, who hosted me during my research trips to London. Last but certainly not least, I want to thank my wife, Alex, who dutifully checked several versions of the thesis, and who has been my mental and moral support from beginning to end.

Table of Contents

	Declaration	page	i	
	Abstract		ii	
	Acknowledgements		iii	
	List of Figures		V	
List of Tables				
	Abbreviations		viii	
Intro	duction: A Walk and Talk Through London Zoo		1	
1	Establishing the Zoological Society of London: The Evolution of Display in London Zoo	I	27	
2	The Zookeeper is 'an Obscured Individual, Perfectly Unknown to Fame': Caring for Animals, and the Ethnographic Display		71	
3	'Walking in the Zoo is the O.K. Thing to Do': Gentle Souls with Brutish Outbursts and the Elephant(s) Experience at London Zoo 1865-1896		116	
4	'It is a Rare Thing to See a Dead Donkey; Certainly it is Still Rarer to See a Dead Giraffe': Animal Acquisitions and the Jubilee Giraffe, ca. 1897		156	
5	Science and the Nature of Discovery: The Scramble for the C ca.1901-1910	Okapi	200	
Con	clusion: From Mitchell to Mitchell: A New Century at the Zoolog Society of London	ical	243	
Арре	Appendix I		254	
Appendix II			255	
Appendix III		256		
Bibli	Bibliography		257	

List of Figures

1.	A Ride on the Elephant and Camel, 1901	3
2.	Map of Regent's Park with the Gardens of the Zoological Society of London, c. 1833	39
3.	Views of different buildings built by Decimus Burton, 1832	40
4.	Sketch of the Zoological Gardens in the Summer, 1837	48
5.	Print of the Zoological Gardens in the Summer, 1872	48
6.	Beasts at the Zoo, Punch	51
7.	Easter Monday in the Great Zoological Hall, The British Museum	61
8.	The Interior of the Hummingbird House	65
9.	The Bear Pit, Zoological Gardens, Regent's Park	72
10.	The Keeper's Lodge by Decimus Burton, 1828	82
11.	Photograph of the Polar Bear being fed by a Keeper	88
12.	A Portrait of Hamet Safi Cannana and Obaysch the Hippopotamus	108
13.	The Hippopotamus' New House	108
14.	The Female Hippopotamus at the Zoological Society's Gardens, Regent's Park	111
15.	The Elephants at the London Zoo	129
16.	Photograph of Jung Perchad and Suffa Culli giving rides around the Gardens	138
17.	The Burmese White Elephant and Keeper	147
18.	Victorian Hunter Lassoing a Giraffe by its Neck in the Africa Savanna	166
19.	A Levée of Pets, the Prince of Wales' Royal Ark, 1876	182
20.	Daisy the Giraffe with H Windhorn, 1895	188
21.	The Jubilee Giraffe in Africa, presented to Queen Victoria by King Khana, 1897	194
22.	Printed Cartoon of ZSL Scientific Meeting, Punch	206

23. 'A New Species of Zebra', The bandoliers of an unidentified animal	223
24. Watercolour painting of an okapi by Harry Johnston, 1901	226
25. Map of the Congo with estimated distribution of okapis, 1907	235

List of Tables

1.	Admission to the ZSL Museum, 1830-1840	59
2.	Staff appointments with known animal charges, 1829-1903	86
3.	Receipts from the Elephant/Camel Rides, 1882-1903	137
4.	Giraffes Exhibited in the Gardens, 1836-1897	186
5.	Timeline of Okapi specimens sent to Europe, 1900-1910	237

Abbreviations

CWA		City of Westminster Archive
LA		Lambeth Archives
LS		Linnean Society Archives
NA		The National Archives
NHM		Natural History Museum Archive
ZSLA		Zoological Society of London Archive & Library
	СММ	Council Meeting Minutes
	GMM	General Meeting Minutes
	RoC	Reports of Council
	SMM	Scientific Meeting Minutes
ANH		Archives of Natural History
ILN		The Illustrated London News
JICH		Journal for Imperial and Commonwealth History
JMBRAS		Journal of the Malaysian Branch of the Royal Asiatic
		Society
P&P		Past & Present
PMLA		Publications of the Modern Language Association of
		America
PZS		Proceedings of the Zoological Society of London
TGJ		The Geographical Journal
TZS		

A Walk and Talk Through London Zoo

We're off to the Zoo! We're off to the Zoo! We haven't a moment to spare We're going to see the kangaroo, And feed the big brown bear.
We're going to hear the hyena laugh, And see the lion to-day, The tiger and the tall giraffe, And the monkeys all at play.
We'll ride the camel and elephant too, And be happy all the while, with the hippopotamus and the gnu, And the crawly crocodile.

We're off to the Zoo! We're off to the Zoo! It's sure to be dry and fine,
For we're going to see the cockatoo, And the prickly porcupine,
The snakes that scarcely ever stir, The huge rhinoceros,
The llama with such lots of fur, And the snow-white albatross.
We'll see the ostrich, then, I hope, The angry buffalo,
The seal, the wolf, the antelope, - And now it's time to go!

- E. B. S. Montefiore, Off to the Zoo, 1901

When visiting London Zoo today, there are several things people tend to experience. Firstly, they spend a lot of time walking: ambling along from enclosure to enclosure as they switch from the plains of Africa to the tropical rainforests of South America. Once at their preferred enclosure, visitors then stand in front of or near the exhibit window, bobbing and weaving to catch a glimpse of the animals whilst they talk, point, and press their fingers against the glass. For some, there is a sense of pride when they finally spot the animal hiding in the corner or witness it move into view. Meanwhile, as all this is happening, parents frantically chase after their children as they listen to them replicate the sights and sounds of their favourite animals; for some, these children are quite literally little monkeys. For the vast majority of people nowadays, this is what constitutes a visit to London Zoo.

Taking a break from the throngs of people in the main part of the gardens, there are two main eateries in the Zoo. One can dine in the terrace restaurant or in the grade II listed Mappin Pavilion, looking out onto views of wallabies and emus in their Australian 'outback' home. At specific times of day, visitors also have the opportunity to meet with the zookeepers and ask them questions, listen to talks, or even join them in the enclosure for more hands-on activities with specific animals. Failing this, there is always the gift shop; it is a welcome sanctuary to any weary zoo traveller. Indeed, adjacent to the gift shop in the middle of the main gardens is an open lawn surrounded by large Turkey oak trees. Today the area is enclosed by various exhibits, including a pen for red river hogs, a giant Galápagos tortoise house, and a lawn for temporary displays. It marks the centre of London Zoo and is on the border between the gardens' 'orange' and 'blue' zones, which are designed to help visitors navigate the zoo space. At this junction, visitors have the option to visit 'Tiger Territory' and 'Penguin Beach', or turn towards the tunnel and see 'Into Africa' across the way. It is the central fixture of the zoo's fabricated natural world. Yet, on this exact spot nearly 125 years ago, those Turkey oaks were not yet the giant gnarled trees that now dominate the gardens' skyline, nor were the sights and sounds of the nearby animals the same as they are today.

When standing on this open verdure around 1900, the atmosphere was quite different – a configuration that has aptly been depicted in E. B. S. Montefiore's picture book A Day at the Zoo [figure 1].¹ On the opening page of Montefiore's book is an image of an elephant and camel walking along a gravel path, depicted as if the illustrator was standing on the gardens' Great Lawn. Children are seated on both animals, with those riding the elephant positioned in a manner that evokes an intrepid expedition or safari. The animals are led by a keeper, a rather dubious replacement of an Indian mahout, enabling onlookers to stand in awe as the two animals walk in front of them. Another group of visitors are standing further back, gathered to examine the content of the enclosures under the old carnivora terrace. Although the number of visitors is relatively small for such a sunny day, the image epitomises London Zoo as a site for animal encounters at the turn of the century, shaping a particular understanding of the natural world. It is a scene somewhat different from today. It sets the stage for this study of the Zoological Society of London and its gardens 'beyond the bars' in the Victorian era, exploring the nature of science, animals in zoo history, and the global context in which the ZSL functioned. The purpose of this thesis is,

¹ A Day at the Zoo, illus. E. B. S. Montefiore (London: T. Nelson & Sons, 1901).

simply put, to investigate this space and discuss how the Zoological Society of London has shaped understandings of the natural world.



Figure 1. 'A Ride on the Elephant', in *A Day at the Zoo*, illus. E. B. S. Montefiore (London: T. Nelson & Sons, 1901).

In order to achieve this, it is first necessary to give an overview of the thesis, and explain how it contributes to the field of historical zoo studies. The introduction will therefore begin with a sweeping and necessarily schematic survey of the relevant historiography, tracing a few highly visible yet dominant threads from the rich tapestry of zoo history. The following section will then place the inquiry in its appropriate context, applying three overarching themes to account for the ways the ZSL curated, collected, and classified animals in the nineteenth century. The final section will detail how each chapter unfolds, and, like any good guidebook to the zoo, will map out the various contours of the thesis. It is these issues that will be addressed and reconciled in the remaining portion of the introduction.

Keeping up with the pack: Animals and zoos in context

Since Harriet Ritvo published *The Animal Estate: The English and Other Creatures in the Victorian Age* in 1987, there has been a flurry of academic interest in zoological gardens (colloquially abbreviated to 'zoos'), which over the

last few decades has emerged as a serious subject of scholarly debate.² The history of zoos in the nineteenth century has been particularly fruitful, which, as Sally Kohlstedt has argued, is not merely by chance.³ The 'modern zoo' emerged in a 'golden age' of scientific development, with the study of natural history becoming a popular activity by the mid-nineteenth century.⁴ Unlike private menageries and travelling shows – in many ways the precursors of the modern zoo – these new institutions differed considerably from the older forms of animal display, promoting 'education, the advancement of science, and in some cases conservation, as well as entertainment'.⁵ The interplay between power, politics, and deep-seated cultural values were still very prevalent, but the emphasis on education and science provided a new model and impetus for the development of zoos around the world.⁶ The era of the 'classical zoo' thus emerged in the second quarter of the nineteenth century, just before the high noon of imperialism, in a period subsequently characterized by the expansion of European empires and the circulation of enterprise between institutions, places, and peoples.⁷

The Zoological Society of London – the proprietary organisation of London Zoo – was one of the first of these new institutions, and played a crucial role in the ensuing development of 'classical zoos' around the world.⁸ Founded in 1826, the Zoological Society of London emerged in a context which was thriving with animal life.⁹ Animals abounded in nineteenth century London, and as part of this,

² H. Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987).

³ S. G. Kohlstedt, 'Reflections on Zoo History' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 3-7 (p. 6).

⁴ S. G. Kohlstedt, 'Reflections on Zoo History', p. 3; H. Cowie, *Exhibiting Animals in Nineteenth Century Britain: Empathy, Education, Entertainment* (London: Palgrave, 2014), p. 6.

⁵ E. Hanson, *Animal Attractions: Nature on Display in American Zoos* (Princeton: Princeton University Press, 2002), p. 3.

⁶ B. Mullan & G. Marvin, *Zoo Culture*, 2nd edition (Chicago: Illinois Chicago Press, 1999), p 108. Far from confining exotic animals as symbols of personal power, the conception of the nineteenth century zoo 'was not unlike that of a public library or museum', providing access to information, education, and entertainment. See, T. Veltre, 'Menagerie, Metaphors, and Meanings' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 19-29 (p. 27).

⁷ A. Flack, *The Wild Within: Histories of a Landmark British Zoo* (Charlottesville: University of Virginia Press, 2018), pp. 7-8.

⁸ S. Zuckerman, 'The Rise of Zoos and Zoological Societies', in *Great Zoos of the World: Their Origins and Significance*, ed. S. Zuckerman (London: Weidenfeld & Nicholson, 1979), pp. 1-26 (pp. 7-15).

⁹ Compared to today, urban life in London was more visibly connected with animals in the nineteenth century, evoking scenes of cattle being driven to market, the commercialisation of pet-

London Zoo (officially opened in 1828) became a privileged site of animal spectacle, evolving into a 'popular destination for family excursions, a refuge from everyday social realities, and an ideal contact zone with the natural world'.¹⁰ Initially a private garden, the zoo eventually opened to the general public in 1847, effectively transforming into a zoological amusement park as it held the 'balance between science and commerce'.¹¹ From then on, the zoo's immense popularity rested on its capacity to appeal to the masses, accommodating science with spectacle in a way that was informative yet rewarding. How these developments impacted understandings of natural history are key to this thesis, offering a glimpse into historical understandings of natural history that have been embedded in the Zoo's culture.

It is, as Takashi Ito argues, important to study zoos in the societies in which they first developed, as zoos are human-centred institutions that concentrate on an idealistic and practical relationship with the natural world.¹² Zoos offer 'a peculiar blend of nature and culture', providing perspectives of the natural world within a specific time and place.¹³ Even today, zoos showcase animals relative to contemporary debates, highlighting how zoological knowledge is circulated, influenced, and integrated into wider systems of knowledge transmission. To quote Bob Mullan and Garry Marvin, a study of the zoo is 'about watching people watch animals'.¹⁴ What then makes the study of the nineteenth century Zoological Society of London so important?

To return briefly to Montefiore's picture book image mentioned earlier, there are a few details which require additional remarks. Akin to the designated colour zones marked out in the twenty-first century, Montefiore's image also highlights the intersection of several social worlds in London Zoo at the end of the Victorian era. There are not just people and animals depicted, nor do they simply fit into a

cultures, and the removal of undesirable animals like rats and strays. See, T. Ito, 'Locating the Transformation of Sensibilities in Nineteenth-Century London', in *Animal Cities: Beastly Urban Histories*, ed. P. Atkins, (London: Routledge, 2012), pp. 189-204.

¹⁰ T. Ito, 'History of the Zoo', in *Handbook of Historical Animal Studies*, ed. M. Roscher, A. Krebber & B. Mizelle (Oldenbourg: De Gruyter, 2021), pp. 439-455 (p. 443).

¹¹ T. Ito, 'Locating the Transformation of Sensibilities in Nineteenth-Century London', p. 193.

¹² T. Ito, *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014), p. 1.

¹³ E. Hanson, Animal Attractions: Nature on Display in American Zoos, p. 2.

¹⁴ B. Mullan & G. Marvin, *Zoo Culture*, cover page; S. G. Kohlstedt, 'Reflections on Zoo History', p. 7.

binary observer-observed analogy. Instead, there are various dynamics at play, revealing active and passive participants, visible and invisible figures, and real and imaginary interactions between people and animals alike. There are men and women, children and parents, and even employees represented. The onlookers could be scientists, amateur naturalists, ZSL fellows, thrill-seekers, or first-time visitors, amongst other applicable labels, each having an individual appreciation of the animals they encountered. Similarly, the animals incorporate their own nuances too, interacting with the visitors inside and outside the enclosures as well as with each other. There is not just an elephant and a camel portrayed, but potentially two named individuals, members of a herd, or sole representatives of their species displayed for the first time in captivity. The animals could simultaneously be the naturalists' specimen, the child's zoo favourite, the photographer's worst nightmare, or the zookeepers' personal charge. Such categories highlight the variety of dynamics at play in the gardens space, uncovering a multiplicity of visions and meanings in relation to the ZSL and its animals.

It is this complexity that makes the study of the Zoological Society of London and its gardens so important, pointing to a range of perceptions of the natural world. The ZSL is an ideal place for studying this crosspollination of ideas, sociocultural developments, and the politics of global enterprise. By tracing a history of the Zoological Society of London and its gardens, this study offers a new perspective of zoo history, beginning with the animals and expanding outwards to look beyond the bars to account for the functioning life of the zoo. Therefore, to contextualise this inquiry, it is necessary to explore the three main themes which are used to plot these developments, investigating the nature of science, the history of animals, and the global context in which the ZSL operated. In each case, the themes interrelate different historical debates and ideas, illustrating how the Zoological Society curated, collected, and classified animals.

Curating, collecting, and classifying animals

The first of these themes is the nature of science, which should not be overlooked; the original ZSL charter specifically sought to assemble a collection

of exotic animals for scientific research and experimental breeding.¹⁵ The history of science first emerged as an academic discipline with a fixed set of interests in the 1960s and was initially linked to the history of ideas and the philosophy of science. At that time, it was widely assumed that the study of scientific development should be concerned with scientific theory, a position that encouraged scientists to take an active interest in historical studies.¹⁶ This early model primarily focused on 'great men' of science, purportedly demonstrating 'a one-way flow of influence between theoretical innovation...and the wider domains of Western science and culture'.¹⁷ However, since then, 'externalist' historians have shown that peripheral factors - as opposed to the internal methodological and epistemological problems in searching for an objective knowledge of nature - have played a significant role in shaping scientific knowledge.¹⁸ This social constructionist turn, heavily inspired by Michel Foucault and Thomas Kuhn, has completely transformed approaches to scientific knowledge production, demonstrating that scientific developments need to be explained in sociological terms.¹⁹ In a broader 'postmodern rejection of our unmediated access to reality', scholars such as Lynn Nyhart have argued that scientific knowledge has been constructed rather than discovered in nature, and that it was not 'the work of individual minds but was ineluctably social.²⁰

Concerned with the engagements of science and the outside world, historians of science have increasingly turned away from the theories of science to the professional groupings and sociological elements that defined the way

¹⁵ M. Hutchins, R. J. Wiese & B. Smith, 'Introduction: Research in Zoos and Aquariums: Purpose, Justification, Utility and Welfare', in *Scientific Foundations of Zoos and Aquariums: Their Role in Conservation and Research*, ed. A. B. Kaufman, M. J. Bashaw & T. L. Maple (Cambridge: CUP, 2018), pp. 1-42 (p. 2).

¹⁶ P. J. Bowler & J. V. Pickstone, 'Introduction', in *The Cambridge History of Science, Vol. 6: The Modern Biological and Earth Sciences*, ed. P. J. Bowler (Cambridge: CUP, 2009), pp. 1-12 (p. 2).

¹⁷ P. J. Bowler & J. V. Pickstone, 'Introduction', p. 3.

¹⁸ P. J. Bowler & J. V. Pickstone, 'Introduction', p. 2. Also see, L. K. Nyhart, 'Historiography of the History of Science', in *A Companion of the History of Science*, ed. B. Lightman (Chichester: Wiley-Blackwell, 2016), pp. 7-22 (p. 7).

¹⁹ See, M. Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception* (London: Tavistock, 1973); T. S. Kuhn, *The Structure of Scientific Revolutions: 50th Anniversary Edition* (Chicago: University of Chicago Press, 2012); L. K. Nyhart, 'Historiography of the History of Science', pp. 8-9.

²⁰ L. K. Nyhart, 'Historiography of the History of Science', pp. 8-9.

scientific activities have been conducted.²¹ As Peter Bowler and John Pickstone have argued, historians now pay much greater heed to the emergence, maintenance, and transformation of research disciplines in order to understand the history of science and its production, investigating 'the social and economic features of the period', as well as its institutions and ideas.²² Viewed as much as a practical and social activity as an epistemological endeavour, the history of science has been approached from a variety of angles, placing a more tightly focused emphasis on the 'situatedness of knowledge'.²³ As a result, four broad analytical categories have emerged which are central to any history of science: roles, places and spaces, communications, and tools of science.²⁴ Like other histories of science, these investigative junctures are paramount to this thesis.

The peoplescape of contributors involved in the production of scientific knowledge has been particularly expansive, addressing who was involved in the process of knowledge production. Sandra Harding and Donna Haraway have been at the forefront of this conversation, advocating that many people were involved in the production of knowledge, performing various tasks that contributed to a shared reliable knowledge. Broken into partial perspectives, these 'situated knowledges' have lent particular authority to the agency of individuals whose communal efforts contributed to a standpoint of social progress.²⁵ Similarly, in his seminal work *The Invisible Technician*, Steve Shapin has investigated 'the invisible hands' of operators and laborants involved in making scientific knowledge, considering both historical and modern attitudes towards the value of skilled work and the transparency of technicians.²⁶ Although Shapin is concerned with technicians within a laboratory in-situ, a similar

²¹ J. Agassi, *Science and its History: A Reassessment of the Historiography of Science* (Boston: Springer, 2008), pp. 119-124. Also see, S. Dubow, 'Introduction', in *Science and Society in Southern Africa*, ed. S. Dubow (Manchester: MUP, 2000), pp. 1-10.

²² P. J. Bowler & J. V. Pickstone, 'Introduction', p. 2.

²³ B. Lightman, 'Introduction', in *A Companion of the History of Science*, ed. B. Lightman (Chichester: Wiley-Blackwell, 2016), pp. 1-6 (p. 4).

²⁴ L. K. Nyhart, 'Historiography of the History of Science', p. 7.

²⁵ D. Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives', *Feminist Studies*, Vol. 14, No. 3 (Autumn, 1988), pp. 575-599 (p. 590). S. Harding, *The Science Question in Feminism* (Ithaca: Cornell University Press 1986).

²⁶ S. Shapin, 'The Invisible Technician', American Scientist, Vol. 77, No. 6 (1989), pp. 554-563 (pp. 554-556). Also see, K. Hentschel, Unsichtbare Hände: Zur Rolle von Laborassistenten, Mechanikern, Zeichnern u. a. Amanuenses in der physikalischen Forschungs- und Entwicklungsarbeit (Diepholz: GNT-Verlag, 2008).

countenance to Bruno Latour and Steve Woolgar's *Laboratory Life*, the diversity of people included in this social reckoning has subsequently expanded tenfold.²⁷ The centrality of hidden labourers, women, common scientists, non-specialists, and other practitioners involved in the production of science outside the laboratory environment has grown accordingly – important aspects this thesis also extends to individuals associated with the ZSL.

The scope of this methodological approach certainly has its advantages, opening up questions about what constitutes a 'scientist' and the intermediate level of scientific behaviour between individuals and institutions. These debates have drawn considerable attention to the discrepancies between elitist scientific organisations and individuals who were excluded, marginalised, or even rebelled against the 'dictature of the academies'.²⁸ Furthermore, this has also drawn out intricacies between 'high' and 'low-brow' forms of science, the variance between those who cultivated and engaged in scientific activities, and the specialisation and professionalisation of scientific communities.²⁹ Accordingly, public science has become an increasingly sophisticated historiographical field, moving away from a diffusionist popularisation of 'hard' science towards an analysis of science and its 'publics', as well as the interactions between them.³⁰ The pretension of a so-called 'proper way of doing science' in 'institutionalised centres of power', has given way to perspectives in which both 'writers for the general public and [the] public itself are treated as active cultural interpreters and knowledge-makers worthy of study'.³¹ To return to the comments made about Montefiore's image, these analytical categories can illuminate how different understandings of

²⁷ B. Latour & S. Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverley Hills: Sage, 1979).

²⁸ L. Pyenson & S. Sheet-Pyenson, *Servants of Nature: A History of Scientific Institutions, Enterprises and Sensibilities* (London: Harper Collins, 1999), p. 320.

²⁹ A. Desmond, 'Redefining the X Axis: 'Professionals,' 'Amateurs' and the Making of Mid-Victorian Biology', *Journal of the History of Biology*, Vol. 34 (2001), pp. 3-50.

³⁰ For discussions on public science see, R. MacLeod, *Public Science and Public Policy in Victorian Britain* (Burlington: Ashgate Variorum, 1995); H. Hoffenberg, *A Science of Our Own: Exhibitions and the Rise of Australian Public Science* (Pittsburgh: Pittsburgh University Press, 2019). Specifically for natural history see, S. J. M. M. Alberti, 'The Museum Affect: Visiting Collections of Anatomy and Natural History', in *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, ed. A. Fyfe & B. Lightman (Chicago: Chicago University Press, 2007), pp. 371-403.

³¹ L. K. Nyhart, 'Historiography of the History of Science', p. 13.

scientific production related to the ZSL, linking the multiplicity of visions in both the generation and immersion of zoological sciences.

The intricacy of these analytical lenses cohesively link to the communicative practices of knowledge production, which, as part of a broader interdisciplinary 'spatial turn', have generated lively debate on the circulation and placement of scientific knowledge. As a long-accepted tenet of constructivist histories of science, scientific knowledge begins locally before spreading elsewhere, moving between people and places, as well as through ideas, objects, and cultures. David Livingstone has written extensively on this spatial component, exploring venues where science has been practised, 'made and remade, and from which scientific knowledge spreads'.³² In Livingstone's view, scientific practice and knowledge transmission are guided by spatial settings, collating a range of sensory experiences that induce different optical, acoustic, and olfactory influences.³³ The spatial component is particularly important for the ZSL, especially regarding the relationship between zoology and empire, as many animals were acquired overseas. This will highlight reciprocal interactions between actants (both human and animal) and environments on a truly global scale.

Following in Livingstone's footsteps, this thesis will also explore the circulation of knowledge to stress the importance of networks, exchange, and competing agencies within different localities. The emphasis on circulation will displace some of the unidirectional and somewhat Eurocentric aspects of Bruno Latour's 'centre of calculation' hypothesis, and instead favour the epistemological indispensability of intermediaries and go-betweens 'at sites where "trading zones" existed or hybrid knowledge cultures persisted'.³⁴ The malleability of this approach has particularly powerful implications for institutions like the ZSL, showing multidirectional complexity as zoological knowledge flowed from place to place and between actants. Various historians have already applied this

³² D. Livingstone, *Putting Science in its Place: Geographies of Scientific Knowledge* (Chicago: Chicago University Press, 2003), p. 19.

³³ D. Livingstone, *Putting Science in its Place*, p. 20.

³⁴ L. K. Nyhart, 'Historiography of the History of Science', p. 15. Also see, D. Turnbull, 'Boundary-crossings, Cultural Encounters and Knowledge Spaces in Early Australia', in *The Brokered World: Go-Betweens and Global Intelligence, 1770–1820*, ed. S. Schaffer & Others (Sagamore Beach: Science History Publications, 2009), pp. 387-428.

multidirectional aspect (and the above-mentioned analytical threads) to other contexts, but it is this thesis' objective to consider its application in a study of the ZSL.³⁵ Combining all of the aforementioned approaches to the nature of science, the thesis will demonstrate that science was made and remade at different levels through the ZSL's global interactions, simultaneously bridging spatial, epistemological, and cultural boundaries to reflect a salutary constellation of scientific production and engagement.

The second theme of this thesis is the study of animals, which throughout predominantly relates to wild animals and 'exotic' animals in captivity. In recent years, there has been a surge in historical animal studies which have not only sought to uncover animals as humanity's historical accomplices but also as selfdirected individuals with their own histories and forms of agency. As Mieke Roscher, André Krebber, and Brett Mizelle have argued, 'animals and the relationships humans have with them surface not only as powerful lenses for unpacking history, but as powerful forces in shaping history in the first place'.³⁶ David Shaw has even suggested animal history raises fundamental questions about the nature of history by forcing us to rethink 'who...the 'we' of history is'.³⁷ Although animal history has often been associated with environmental history – albeit set apart from their environment - since the 1990s scholars have developed a detailed picture of historical animal studies that now spans a variety of historical sub-fields. The field can no longer play the underdog, according to Joshua Specht, as historians have moved animals to the heart of fields 'as varied as imperial history and the history of technology'.³⁸ Comparable to feminist

³⁵ See for example, A. Marples & V. R. M. Pickering, 'Exploring Cultures of Collecting in the Early Modern World', *ANH*, Vol. 43, No. 1 (2016), pp. 1-20; K. Raj, 'Localities and Spaces of Circulation: Mapping Humanity from Calcutta in the Late 18th Century', in *Connecting Worlds: Production and Circulation of Knowledge in the First Global Age*, ed. A. Polónia, F. Bracht & G. C. Conceição (Cambridge: Cambridge Scholars Publishing, 2018), pp. 18-44; P. F. Gómez, 'The Circulation of Bodily Knowledge in the Seventeenth-Century Black Spanish Caribbean', *Social History of Medicine*, Vol. 26, No. 3 (2013), pp. 383–402.

³⁶ M. Roscher, A. Krebber & B. Mizelle, 'Writing History After the Animal Turn? An Introduction to Historical Animal Studies', in *Handbook of Historical Animal Studies*, ed. M. Roscher, A. Krebber & B. Mizelle (Oldenbourg: De Gruyter, 2021), pp. 1-18.

³⁷ D. G. Shaw, 'A Way with Animals', *History and Theory*, Vol. 52, No. 4, Iss. 52 – Does History Need Animals? (Dec., 2013), pp. 1-12 (p. 11).

³⁸ J. Specht, 'Animal History After its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens', *History Compass*, Vol. 14, No. 7 (2016), pp. 326-336 (p. 326).

historians remarking on '*his*tory', animal historians now seek to extend this critique to the '*human*ities'.

Central to the animal history discourse is the notion that animals have been an integral part of practically every human society. Dorothee Brantz has asked: what would the history of agriculture, transportation, the arts and sciences, and even warfare look like without animals?³⁹ Much of this analytical rethinking derives from the pioneering works of Keith Thomas and Harriet Ritvo, who have encouraged scholars to investigate various cultural arenas in which animals have played a role.⁴⁰ Takashi Ito and Helen Cowie, for instance, have recently sought to relocate sites of 'exotic' animals in cities, looking at animal life in the nineteenth century and how this affected popular sensibilities towards animal spaces.⁴¹ Similarly, approaches to animal afterlives has been equally productive, tracing the shifting meanings (scientific, cultural, emotional) of stuffed specimens in museums. They are not only deceased animals, but specimens with personalities; 'not only data, but also historical documents', creating perennial biographies of individual animals both before and after death.⁴²

The expanding interest in the animal's place in human society has ensured that most mainstream historians accept the tenet that animals are important within historical cultures. Yet, grappling with animals as history-shaping agents has been slightly harder to pin down; nonhuman agency still raises important methodological and theoretical questions.⁴³ Seeking to tackle the issue head on, Donna Haraway has become an inspirational pillar of theoretical reference in human-animal studies. Borrowing from Bruno Latour to push the boundaries of humanist discourse, Haraway has suggested that humanity is just one part of 'a

³⁹ D. Brantz, 'Introduction' in *Beastly Natures: Animals, Humans, and the Study of History* (Charlottesville: Virginia University Press, 2010), pp. 1-14 (p. 2).

⁴⁰ K. Thomas, *Man and the Natural World: Changing Attitudes in England 1500-1800* (London: Penguin Books, 1984); H. Ritvo, *The Animal Estate*, pp. 1-42. Also see, D. Brantz, 'Introduction', p. 4.

⁴¹ T. Ito, 'Locating the Transformation of Sensibilities in Nineteenth-Century London', p. 204; H. Cowie, *Exhibiting Animals in Nineteenth Century Britain*, pp. 52-76.

⁴² J. M. M. Alberti, 'Introduction', in *The Afterlives of Animals: A Museum Menagerie* (Charlottesville: University of Virginia Press, 2011), pp. 1-2. Also see, R. Poliquin, *The Breathless Zoo: Taxidermy and the Cultures of Longing* (Singapore: Tien Wah Press, 2012), pp. 1-10.

⁴³ C. Pearson, 'History and Animal Agencies', in *The Oxford Handbook of Animal Studies*, ed. L. Kalof (Oxford: OUP, 2018), pp. 240-253.

spatial and temporal web of interspecies dependencies'.44 In When Species Meet, Haraway explores this inter-relationality via 'companion species', adopting gestures from phenomenologist Maurice Merleau-Ponty to illustrate how humans and non-humans engage in 'mortal world-making entanglements' that are embodied by cross-species sociality.⁴⁵ These units of being, according to Haraway, do not precede the meeting of such partners, as 'species of all kinds, living and not, are consequent on a subject- and object-shaping dance of encounters'.⁴⁶ Her language is reminiscent of Gilles Deleuze and Félix Guattari's conception of becoming-animal, which, as Haraway goes on to explain, envelops companion species as constituents in a 'tapestry of shared being/becoming among critters (including humans)...animals are everywhere full partners in worlding, in becoming with'.⁴⁷ The theoretical implication of Haraway's argument acts as a refreshing analysis of co-habitation and historised co-evolution that challenges anthropocentrism and the 'narcissism of sado-humanist thought', seeing humans as 'one among many other embodied beings who stand neither above nor outside the nonhuman'.⁴⁸ By invoking gestures of phenomenology, Haraway's zoontologies dispose of 'the patriarchal mythos of enlightenment and transcendence' which condition our particular relations with other beings.⁴⁹

Haraway's approach is useful for navigating the pitfalls of anthropomorphism and animal studies, but methodologically it still raises some issues for historians and approaches to *historical* animal studies. There are various challenges when discussing animal/human interactions and agency in historical contexts, as most historical documents tend to be written or collected

⁴⁴ D. Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), p. 11. Although Haraway is often associated with posthumanism, in an interview conducted in 2006 she spoke about her scepticism of the term. Instead, Haraway acknowledged the philosophical alignment but adopted 'companions species...to get away from posthumanism'. In her own words, 'I'm with zoontologies more than posthumanism because I think that species is in question here big time and species is one of those wonderful words that is internally oxymoronic. See, N. Gane, 'When We have Never Been Human, What is to be Done? Interview with Donna Haraway', *Theory, Culture, & Society*, Vol. 23, No. 7-8 (2006), pp. 135-158 (p. 140).

⁴⁵ D. Haraway, *When Species Meet*, p. 4. Also see, M. Merleau-Ponty, *Phenomenology of Perception*, trans. D. A. Landes (London: Routledge, 2012), p. 407.

⁴⁶ D. Haraway, When Species Meet, p. 4.

 ⁴⁷ G. Deleuze & F. Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), p. 264; D. Haraway, *When Species Meet*, pp. 72, 301.
 ⁴⁸ Z. Weisberg, 'The Broken Promises of Monsters: Haraway, Animals and the Humanist

Legacy', Journal of Critical Animal Studies, Vol. 7, Iss. 2 (2009), pp. 22-62 (pp. 27-28).

⁴⁹ Z. Weisberg, 'The Broken Promises of Monsters', p. 28.

by humans. A true 'animal perspective' – methodologically speaking – is hard to obtain, as access to animals in the past is directed by sources produced, accumulated, and/or shaped by humans. We are never looking at the animal, Erica Fudge states, 'only ever at the presentation of the animals by humans'.⁵⁰ Animals had past lives, but not always historical lives, making human-animal interactions difficult to comprehend. Nevertheless, in trying to look past the representational animal, historians are now seeking to explore new methodological avenues to avoid these conceptual constraints.

Gesine Krüger, Aline Steinbrecher, Clemens Wischermann, and Charlotte Hoes, for example, have sought to address agency by embracing approaches to human-animal interactions via embodied agency.⁵¹ Not dismissing the importance of agency, their approach removes the emphasis of intentionality and motivated agency, instead, advocating an embodiment of agency in which animals fulfilled purposeful actions through interactions with humans and environments, thereby influencing the outcome of historical events.⁵² Through this viewpoint, animals are granted some autonomy, as they are somatic beings, fighting 'against capture, confinement, and transport, [documenting] the agency that animals had in their interactions with humans, which also influenced practices and outcomes'.⁵³ Thinking about zoo animals, animal behaviours had to be factored into logistics, affecting movement and regulations, as well as human-centred decisions such as when keepers were used in certain circumstances. Acknowledging these lived experiences can bridge the presentational gap between human and animal interactions, placing the actants within an active social world. In accepting these dialectical processes, it is

⁵⁰ E. Fudge, 'A Left-Hand Blow: Writing the History of Animals', in *Representing Animals*, ed. N. Rothfels (Indianapolis: Indiana University Press, 2002), pp. 3-18 (p. 6).

⁵¹ G. Krüger, A. Steinbrecher & C. Wischermann, 'Animate History: Zugänge und Konzepte einer Geschichte zwischen Menschen und Tieren', in *Tiere und Geschichte: Konturen einer "Animate History",* ed. G. Krüger, A. Steinbrecher & C. Wischermann (Stuttgart: Franz Steiner Verlag Wiesbaden, 2015), p. 31.

⁵² C. M. Hoes, 'Live Cargo, Dead Ends: The German Wildlife Trade in Global Perspective', *Bulletin of the German Historical Institute*, Vol. 70 (Fall, 2022), pp. 67-96 (p. 89). Also see, H. Kean, 'Challenges for Historians Writing Animal–Human History: What Is Really Enough?', *Anthrozoös*, Vol. 25, Sup. 1, (2012), pp. s57-s72 (p. s59, s64); S. J. Pearson & M. Weismantel, 'Does "The Animal" Exist? Toward a Theory of Social Life with Animals', in *Beastly Natures: Animals, Humans, and the Study of History*, ed. D. Brantz (Charlottesville: University of Virginia Press, 2010), pp. 17-37 (pp. 31-32).

⁵³ C. M. Hoes, 'Live Cargo, Dead Ends: The German Wildlife Trade in Global Perspective', p. 89.

possible 'to resituate [humans *and* animals] within an amplified understanding of social life', in which perceptions arose out of lived experience, in all their social, geographic, and material complexity.⁵⁴

The third and final theme relates to imperial history and understanding the ZSL within a global context. There has been a seismic shift in how the history of empire has been studied over the past three decades, highlighting a diverse range of perspectives concerning the expressions, tensions, and complexities of colonialism. Unlike the older school of imperial history, which primarily focused on the geo-strategic, economic, and political implications of European empires, more recent studies have devoted considerable attention to the cultural and socio-political manifestations of imperialism. John MacKenzie is often credited as the main instigator of this newer focus on social and cultural factors, so much so that several scholars now refer to this shift as the 'MacKenzian moment' of imperial history.⁵⁵ Underlying much of the 'new imperial history' is the desire to blur the boundaries between different histories of empire, showing how realms that were previously thought to be distinct actually bled into one another. As a result, the presence of different groups operating within territorial boundaries of empire and their engagement with different colonial projects has produced 'multiple, and at times conflicting and contradictory, discourses of imperialism'.⁵⁶

The impact of the British metropolis on the colonies has never been in doubt, but following John Mackenzie's works *Propaganda and Empire* and *Imperialism and Popular Culture*, there has been a greater focus on the impact of empire on metropolitan cultures.⁵⁷ Championed in book series such as the 'Studies in Imperialism' and academic journals like the *Journal of Imperial and Commonwealth History*, scholars have striven to explore many of these colonial

⁵⁴ S. J. Pearson & M. Weismantel, 'Does "The Animal" Exist? Toward a Theory of Social Life with Animals', pp. 31-32.

⁵⁵ S. Barczewski, 'Introduction: The 'MacKenzian Moment' Past and Present', in *The MacKenzie Moment and Imperial History: Essays in Honour of John M. MacKenzie*, ed. S. Barczewski & M. Farr (London: Palgrave, 2019), pp.

⁵⁶ J. M. Hodge, 'Science and Empire: An Overview of the Historical Scholarship', in *Science and Empire: Knowledge and Networks of Science across the British Empire, 1800-1970*, ed. B. M. Bennet & J. M. Hodge (Basingstoke: Palgrave, 2011), pp. 3-29 (p. 15).

⁵⁷ J. M. MacKenzie, *Propaganda and Empire: The Manipulation of British Public Opinion, 1880-1960* (Manchester: MUP, 1984); J. M. MacKenzie, *Imperialism and Popular Culture* (Manchester: MUP, 1986).

influences, investigating how the relationship between imperial powers and their colonies, albeit in highly uneven and somewhat extractive ways, have constituted 'vectors of assemblage' that shaped reciprocal elements of culture and society.⁵⁸ The display of empire in museums and world fairs, for example, has been thoroughly discussed by Sarah Longair and John McAleer amongst others, demonstrating a multifaceted story of Britain's engagement with the wider world.⁵⁹ As a site of imperial experience, museums were influenced by empire and subsequently informed others about it, curating a particular version of empire. Through these case studies, scholars have demonstrated the profound impact of Britain's overseas empire on the people in the United Kingdom, not only pervading 'high' culture but also popular culture experienced by the vast majority of the population.⁶⁰

Yet, despite the advances into the way empire permeated British culture, far less attention has been paid to the zoo as a site of the exhibition of empire (and the idea of empire), at least compared to other institutions in the imperial metropolis. This is not to say zoo historians have overlooked the importance of empire, far from it, but there is still plenty of work to be done.⁶¹ Takashi Ito's work *London Zoo and the Victorians* is the most recent in-depth study of the ZSL, exploring the earliest portion of the institution's history (roughly 1828-1859). The work is a detailed analysis of the Society's early developments, in which Ito challenges the general perception of London Zoo being a site of imperial display.

⁵⁸ For a good overview, see the 100th book celebrating the Studies in Imperialism series, *Writing Imperial Histories*, ed. A. S. Thompson (Manchester: MUP, 2013). Also see, D. Livingstone, *Putting Science in its Place*, p. 171; J. M. MacKenzie, 'Introduction', in *European Empires and the People: Popular Responses to Imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy*, ed. J. M. MacKenzie (Manchester: MUP, 2011), pp. 1-18.

⁵⁹ S. Longair & J. McAleer, *Curating Empire: Museums and the British Imperial Experience* (Manchester: MUP, 2012), p. 225. Also see, P. Greenhalgh, *Ephemeral Vistas: The Expositions Universelles, Great Exhibitions and World's Fairs, 1851-1939* (Manchester: MUP, 1988); J. M. MacKenzie, *Museums and Empire: Natural History, Human Cultures and Colonial Identities* (Manchester: MUP, 2009); *Exhibiting the Empire: Cultures of Display and the British Empire*, ed. J. M. MacKenzie & J. McAleer (Manchester: MUP, 2015).

⁶⁰ J. M. MacKenzie & J. McAleer, 'Cultures of Display and the British Empire', in *Exhibiting the Empire: Cultures of Display and the British Empire*, ed. J. M. MacKenzie & J. McAleer (Manchester: MUP, 2015), pp. 1-41 (p. 2).

⁶¹ For examples of discussions on empire and zoos see, H. Ritvo, *The Animal Estate*, pp. 205-288; N. Rothfels, *Savages and Beasts: The Birth of the Modern Zoo* (Baltimore: JHUP, 2002), pp. 44-80; H. Ritvo, 'The Order of Nature: Constructing the Collection of Victorian Zoos' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 43-50 (pp. 47, 50); R. Malamud, *Reading Zoos: Representations of Animals and Captivity* (London: Palgrave, 1998), pp. 57-104.

Although Ito does not completely reject empire as a component in the zoo's cultural display, he does question the symbiotic relationship between science and empire, and the notion of an imperial zoo. The acquisition of the Society's first four giraffes from Egypt in 1836 and a botched Indian acclimatisation programme in 1856-7 are used to test whether the ZSL actively took advantage of the infrastructure and manpower of the British Empire to create a 'zoological empire'.⁶² Ito argues that colonial collaboration did not develop into a cohesive system and 'hardly went beyond spontaneous activities'; empire was just a contextual factor with which the ZSL engaged.⁶³ Not in direct challenge to Ito's approach regarding the ZSL's early history, this thesis seeks to add to the discussion by focusing on the Society's global engagements after the zoological gardens opened to the public in 1847, finishing at the turn of the century. Here, the nuances of imperial expansion become more apparent, especially given that many of Ito's case studies occurred before the scramble for Africa or, in the case of the Indian acclimatisation project, just before British rule was destabilised in the uprising of 1857. Arguably, Ito's end date marks a watershed moment in the history of British imperialism; it led to a wider self-fashioning of empire from a loosely informal composition to a more formal configuration. The territorial evolution of empire, and even the slightly more elusive developments of informal encroachment, encompass their own intricacies which need to be acknowledged; they are just as important as the ZSL's engagements with the wider world. The complexity of the ZSL's relationships with the 'extra-European world', and the persistence of this debate, are therefore addressed in several of the chapters.

In a similar vein, the upsurge in imperial history has also led to a reconceptualisation of the structural connections of empire and the relationship between the metropole and its colonies. Tony Ballantyne has provided a revised analytical model for understanding the spatial organisation of empire, challenging the orthodox perspective of empire as a spoked wheel, where Britain is the centre that links each colony through self-containing parts. Influenced by Catherine Hall's work on the colonial influences in Britain, and Ann Stoler and Frederick Cooper's single framework analysis of empire, Ballantyne places a distinctive

⁶² T. Ito, London Zoo and the Victorians, pp. 160-161.

⁶³ Ibid., p. 161.

emphasis on the horizontal and vertical linkages of empire, advocating colonial developments were 'shaped by a complex mesh of flows, exchanges, and engagement'.⁶⁴ This web-like spatiality reimagines the complex connections of empire as a 'messier and more dynamic set of shifting linkages that were constantly being remade as the relationships between colonies, as well as between Britain and its colonies shifted'.⁶⁵ These factors cannot adequately be explained by older national and metropole/periphery imperial historiographies.

What is useful about a networked conception of empire is, as Jospeh Hodge points out, colonial relations spanned across space and time in contingent, nondeterministic, and unstable ways.⁶⁶ It recognises that dialogic colonial projects existed in tandem and were shaped through overlapping networks that were often in competition or opposition against one other. By conceptualising empire into structures of interactivity and web-like connections, Ballantyne argues that 'certain locations, individuals or institutions in the supposed periphery, might in fact be the centre of complex networks themselves'.⁶⁷ Thomas Metcalf has most persuasively demonstrated this in his study of British India, contending India was a sub-imperial centre that extended influence across oceanic pathways from 'Zanzibar to Singapore, from Durban to Basra to Penang, the port cities of the Indian Ocean rim, [and] with their hinterland'.⁶⁸ Furthermore, these networks were not always coterminous within separate empires.⁶⁹ As Natasha Glaisyer has noted regarding trade and commercial exchange patterns, British interests were also embedded in networks that frequently crossed other imperial boundaries, including Dutch, French, and Spanish metropolitan and

⁶⁴ T. Ballantyne, Webs of Empire: Locating New Zealand's Colonial Past (Toronto: UBC Press, 2012), p. 16. Also see, C. Hall, "From Greenland's Icy Mountains ... to Africa's Golden Sand": Ethnicity, Race and Nation in Mid-Nineteenth Century England', Gender & History, Vol. 5, No. 2 (1993), pp. 212–30; C. Hall, White, Male and Middle Class: Explorations in Feminism and History (Cambridge: Blackwell Publishers, 1992); A. L. Stoler & F. Cooper, 'Between Metropole and Colony: Rethinking a Research Agenda', in *Tensions of Empire: Colonial Cultures in a Bourgeois World*, ed. F. Cooper & A. L. Stoler (Berkeley: California University Press, 1997), pp. 1-58.
⁶⁵ T. Ballantyne, Webs of Empire, p. 17.

⁶⁶ J. Hodge, 'Science and Empire: An Overview of the Historical Scholarship', p. 17.

⁶⁷ T. Ballantyne, 'Race and the Webs of Empire: Aryanism From India to the Pacific', *Journal of Colonialism and Colonial History*, Vol. 2, No. 3 (2001), pp. 1–36 (p. 31).

⁶⁸ T. Metcalf, *Imperial Connections: India in the Indian Ocean Area, 1860-1920* (Berkeley: California University Press, 2007), p. 9.

⁶⁹ J. Hodge, 'Science and Empire: An Overview of the Historical Scholarship', p. 17.

colonial places.⁷⁰ The trans-imperial 'interactivity of regions' helps uncover the 'cultural traffic' between empires, enabling historians to explore the inherent relationality of nodal points and transnational forms of interdependence that have previously been marginalised in national histories of empire. Rather than a simple binary, the network conception illuminates the crisscrossed operations of empire, signifying encounters between different peoples, places, and cultures through a polycentric lens.

Through a networked conception of empire, the ZSL's engagement with the wider world becomes more apparent. The thesis therefore extends this methodological approach to the ZSL and its connections with empire, exploring the Society's interactions with different nodal points throughout (and in some cases beyond) Britain's colonial territories. The ZSL not only acquired animals directly from colonial territories but also through middlemen and in exchange with other institutions both in Britain and abroad, engaging in multiple networks to acquire live animals for the gardens and deceased specimens for its scientific meetings. Many of these interactions evolved as the century progressed, with some becoming more entrenched in Britain's empire whilst others withered into obscurity. In considering the ebbs and flows of these interactions, this thesis explores how the ZSL tapped into predominantly British colonial networks and engaged with specific nodal points. It will also investigate the strands and pathways that joined these centres together, examining the movement of animals between contact zones and the logistics involved in transporting them to the ZSL.

Collectively, the above-mentioned themes – the nature of science, the history of animals, and the global imperial context – are the building blocks for this study of the Zoological Society of London during the nineteenth century. The themes are embedded throughout each chapter and are used to explore the different components of the ZSL's history. As a whole, they combine different historical approaches to explore how the ZSL contributed to an understanding of the natural world. The Zoological Society of London not only curated a microcosm

⁷⁰ N. Glaiser, 'Networking: Trade and Exchange in the Eighteenth-Century British Empire', *Historical Journal*, Vol. 47. No. 2 (2004), pp. 451-476 (pp. 475–476). This perspective has more recently been adopted by animal historians in, *Animal Trading Histories in the Indian Ocean World*, ed. M. Chaiklin, P. Gooding & G. Campbell (London: Palgrave, 2020).

of empire, but also collected vast amounts of resources from around the world in order to classify the 'unknown' animals it encountered. Hence, the reliance on this thematic configuration will uphold the structural unity of the thesis, demonstrating how the ZSL curated, collected, and classified animals.

To achieve this, the thesis relies on numerous sources, particularly the earlier official histories of the Zoological Society of London and its gardens. These studies have outlined the long-term developments of the institution, recording important details about the animals, people, and significant events which occurred during the nineteenth century. This includes Philip Lutley Sclater's A Record of Progress of the Zoological Society of London during the Nineteenth Century (1901), Henry Scherren's The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library (1905), Peter Chalmer Mitchell's A Centenary History of the Zoological Society of London (1929), and a collection of paper delivered at the ZSL's 150th anniversary meeting, edited by Solly Zuckerman entitled The Zoological Society of London, 1826-1976 and Beyond (1976).⁷¹ Wilfred Blunt also published a history of the zoo for the sesquicentennial anniversary, The Ark in the Park (1976), and more recently John Barrington-Johnson has produced The Zoo: The Story of London Zoo (2005).⁷² As a whole, these works represent 'approved' versions of the Society's history, having all been produced by generations of internal members of the ZSL, three of whom served as secretaries of the Society.73

⁷¹ P. L. Sclater, A Record of Progress of the Zoological Society of London during the Nineteenth Century (London: W, Clowes, 1901); H. Scherren, The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library (London: Cassell & Co, 1905); P. C. Mitchell, A Centenary History of the Zoological Society of London (London: Printed for the Society, 1929); The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40), ed. By S. Zuckerman (London: Academic Press, 1976).

⁷² W. Blunt, *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976); J. Barrington-Johnson, *The Zoo: The Story of London Zoo* (London: R. Hale, 2005).
⁷³ Between Sclater, Mitchell, and Zuckerman, their secretaryships amount to forty-eight per cent of the ZSL's entire existence. Scherren first became a fellow in 1889 and in February 1901 was asked by Sclater to write his book. Similarly, Blunt was asked by Zuckerman to write his book to coincide with the sesquicentennial of the foundation of the Society. John Barrington-Johnson served on the ZSL council for fourteen years and in 1999 chaired the committee which proposed the way forward for the London Zoo after the difficult financial period in 1990-1.

Although access to certain archives was hindered by Covid-19, this project has taken advantage of various primary sources and comprehensive collections available at the time of writing. The Zoological Society of London Library and Archives were particularly important, which, as an institutional archive, primarily contain the records associated with the ZSL's internal activities dating back to 1826. Alongside the guidebooks and scientific journals, the archives house a sizable collection of letters to and from the secretaries, as well as minutes from the council meetings, scientific meetings, gardens committee, and the published reports of council. Many of these have yet to be thoroughly analysed by historians which is something this thesis rectifies, shedding light on behind-the-scenes activities in the gardens, as well as who was engaged in procuring animals for the Society. Other archives, such as the National Archives, the London Metropolitan Archives, and City of Westminster Archives are used to draw out visual sources, whilst corresponding letters sent from the ZSL to other institutions have been used from the Linnean Society Archives and Natural History Museum Archives.

Similarly, the thesis has taken advantage of several online resources, especially The British Newspaper Archive collection. In partnership with the British Library, The British Newspaper Archive is home to the largest online anthology of historical newspapers, illuminating a range of national, regional and local opinions of the Zoological Society. These periodicals contain anecdotes and interviews, illuminating realistic, satirical, and idealistic illustrations of the animals, buildings, and people associated with the Society. However, an additional dose of scepticism is often required when analysing these texts, as many mainstream articles were plagiarised by local reporters, transmitting inaccurate or modified information. In this respect, the variance between local and national newspapers needs to be acknowledged, as information varied across broadsheets, illustrated weeklies, and penny papers. Articles without illustrations differed from those with images, whilst editorials found at the back of newspapers or under 'miscellaneous news' may not have received the same amount of attention. With access to such a wide range of sources at the touch of a button or keyword search, it is often easy to overlook these subtitles, ignoring the semantic and socio-cultural parameters in which these texts were written, read, or even overheard in

public/private spaces. Nevertheless, they are still useful for understanding public relations with the zoo and the Society's wider influences.

Finally, scholastic analyses have flourished in recent years too. The most noteworthy is Takashi Ito's London Zoo and the Victorians, 1826-1859, which paints a closely observed portrait of the institution in its early years, assessing the cultural politics, public science, and meaning of the animal world as perceived in the gardens.⁷⁴ Several broad themes permeate Ito's book, from which this thesis draws considerable influence, especially the first two chapters.⁷⁵ Likewise, other historians have forwarded informative perspectives as well, exploring specific aspect of the ZSL's history such as the zoological gardens being a site of entertainment, the development of scientific zoological practices, and connotations of imperial display in the nineteenth century. Harriet Ritvo and Robert Jones, for instance, have separately focused on the gardens' imperial aesthetic, the latter advocating a Marxist materialist perspective to account for the increase in animal commodification and the 'seriality of fashion'.⁷⁶ Peter Guillery, on the other hand, has concentrated on the buildings of the London Zoo, whilst John Edwards has complied a series of historical photographs in London Zoo: From Old Photographs 1852-1914, using anecdotal accounts to bring a sundry of black-and-white images to life.⁷⁷ Therefore, in building upon these works, this project seeks to add an original contribution to the field, extending the scholarly interest in the zoo space post-1859 - where Ito's work concludes - and provide new interpretations of the zoo's history to counteract older and more 'traditional' institutional approaches. Thus, this thesis aims to bring animals themselves to the fore of the Society's history, offering an original in-depth study

⁷⁴ T. Ito, *London Zoo and the Victorians*, pp. 1-20.

⁷⁵ Adrian Desmond and John Bastin have also produced insightful articles regarding the Society's early years. See, J. Bastin, 'The First Prospectus of the Zoological Society of London: New Light on the Society's Origins', *Journal of the Bibliography of Natural History*, Vol. 5, No. 5 (1970), pp. 369-388; A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part I', *HoS*, Vol. 23, No. 2 (1985), pp. 153-185; A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part II', *HoS*, Vol. 23, No. 2 (1985), pp. 223-250.

⁷⁶ H. Ritvo, *The Animal Estate*, pp. 205-242; R. W. Jones, "The Sight of Creatures Strange to our Clime': London Zoo and the Consumption of the Exotic', *Journal of Victorian Culture*, Vol. 2, No. 1 (1997), pp. 1-26 (p. 12).

⁷⁷ P. Guillery, *The Buildings of London Zoo* (London: Royal Commission on the Historical Monuments of England, 1993); J. Edwards, *London Zoo: From Old Photographs 1852-1914, 2nd edition* (London: Butler & Tanner, 2012).

of the ZSL and its animals 'beyond the enclosure space' in the latter half of the nineteenth century.

A guide to the history of the Zoological Society of London

The structure of the thesis is organised in a semi-chronological format, interweaving the three main themes throughout each chapter. The main body consists of five chapters, each focusing on a specific animal or species to contextualise the subject matter. This includes separate case studies on hummingbirds, hippopotamuses, elephants, giraffes, and okapis. Although the species mentioned are by no means the only appropriate examples available, the chosen animals represent some of the best documented exemplars in the archival records. Certain individuals, like Obaysch the hippopotamus and Jumbo the elephant have already been well-documented, but others such as the jubilee giraffe and Jung Perchad (an Asian elephant) have rarely been discussed in historical studies, if at all. Similarly, hummingbirds and okapis are relatively obscure species that have not hitherto been thoroughly researched by historians. Through these species and the context of their natural habitats, the chapters cover a range of environments, accounting for various peoples, cultures, and interactions. As can be surmised from the natural habitats and geographic distribution of the case study animals, the thesis predominantly looks at animals from the Indian Ocean World, a macro-region that stretches from southern and eastern Africa, through to South Asia, Southeast Asia, and Australasia. The thesis is therefore more than a mere institutional history of the ZSL. Instead, it delves into the wider implications of London Zoo's exhibition layout, workforce management, perception of animals, global procurement processes, and contributions to western science.

Chapter one begins the discussion by exploring the earliest developments of the Zoological Society of London and London Zoo, investigating how the ZSL's priorities shifted from 1826 to 1855. The chapter examines the changing nature of animal displays in the gardens, especially during David William Mitchell's secretaryship (1847-1859) when the zoo opened to the public. Mitchell's new policies altered the social and scientific outlook of the Zoological Society, increasing the commercial value of live animals at the expense of its preserved specimens. The demise of the Society's museum in 1855 signalled the end of this mode of display. However, just before this occurred, John Gould exhibited a taxidermy hummingbird collection in the gardens, which was hugely successful. It represented the Zoological Society's last attempt to accommodate deceased specimens with its new policies of rational recreation in the gardens. The first chapter therefore explores these transformations, questioning why the temporary hummingbird collection was so popular compared to the museum.

Chapter two investigates the role of the zookeeper, which, as a result of the policies enacted after 1847, increased their responsibilities in the zoo. As the personification of the invisible technician, this chapter seeks to re-evaluate the zookeepers' role in the production of scientific knowledge and counteract their relative historical obscurity. The chapter questions how their day-to-day activities shaped the maintenance (and in some cases mismanagement) of the living collection, taking a holistic approach to uncover their significance during the period between 1850 and 1870. Who were the zookeepers employed by the ZSL, and what roles did they fulfil? Similarly, the chapter traces the history of non-European handlers who occasionally visited the gardens, investigating Hamet Safi Canaana, an Egyptian animal catcher turned handler, who conveyed Obaysch the hippopotamus to London in 1850. Reading animal-centred texts against the grain, the chapter seeks to uncover Hamet's historical invisibility, providing fresh insight into the histories of non-European handlers in the midnineteenth century.

Moving into Philip Lutley Sclater's secretaryship (1859-1903), chapter three focuses on three elephants that lived in the gardens between 1865 and 1896, namely Jumbo, Jung Perchad, and Taoung Taloung. The chapter explores the difficulties in studying the history of elephants in captivity, which, like other animal related-studies, tend to be described as generic representatives of their species or as isolated individuals. Instead, this chapter proposes an alternative analytical lens for studying elephants in the zoo (and by implication other gregarious animals), investigating the aforementioned individuals in relation to each other. It will also touch on their ability to interact with the public beyond the enclosure space through an intraspecies perspectives. Lastly, the case of Taoung Taloung

will be used to explore the different attitudes towards Asian and African elephants, examining how elephant species were perceived in relation to race, empire, and anthropomorphic outlooks.

While the first three chapters primarily focus on matters within London Zoo itself, the subsequent two chapters pivot away from these internal affairs to consider the wider context and external factors that impacted the ZSL. Broadening the geographic scope considerably, chapter four looks at the logistics in transporting animals to the zoo and how animals were acquired. Amalgamating environmental studies with global imperial history, this chapter contemplates how environmental factors and trans-cultural practices affected animal acquisitions. The case of the jubilee giraffe, presented to Queen Victoria from the southern African Chief of Batheon in 1897, is used to exemplify this endeavour, investigating the circumstances, methods, and individuals involved in the procurement process.

Finally, chapter five turns attention to the nature of zoological 'discoveries' at the turn of the twentieth century, investigating the conduct of the Society's scientific meetings in relation to the 'discovery' of the okapi in East Africa in 1901. Encountered by westerners at the tail end of the scramble for Africa, the 'discovery' of the okapi, its classification, and the subsequent race for specimens has been perpetuated as a lost and found claimed and named case. This chapter reexamines that supposedly uncomplicated development, exploring the period before and immediately after the okapi was encountered by Harry Johnston and given its binomial nomenclature, *Okapia johnstoni*. The chapter draws on the disparity between local, popular, and professional forms of science, the transmission of knowledge, and the relationship between science and empire in retelling the okapi 'discovery' narrative.

Returning to the original concern of this thesis, the conclusion draws the three main themes together to readdress the role the ZSL played, and continues to play, in shaping understandings of the natural world. As depicted in Montefiore's picture book *A Day at the Zoo*, London Zoo was a complex microcosm of cultural encounters that extends beyond the enclosure space; it was quite literally a space teeming with life. Indeed, taking a stroll through London

Zoo today, one can still identify the subtle influences of the animals discussed in this thesis, showing how the zoo and its animals continue to challenge and influence our understandings of the natural world.

Chapter I

Establishing the Zoological Society of London: The Evolution of Display in London Zoo

The establishment of the Zoological Society forms an era in the history of science in England as regards the higher departments of animated nature. In its Gardens and Museum our countrymen in general, whether previously attached to Zoology or indifferent to its allurements, have found incitement as well as opportunity to make themselves familiarly acquainted with the appearance and manners of a large proportion of the animal creation.¹

- Edward Turner Bennett, 1830

The establishment of the Zoological Society of London in 1826 was one of the most intriguing developments in the history of zoological science. In the strictest sense of the word, the Zoological Society of London was the first learned institution of its kind and, following the establishment of its zoological gardens in Regent's Park in 1828, it became the proprietor to the world's first modern zoo. As custodian of London Zoo, the Zoological Society of London has often been associated with the advent of modernity and playing a key role in the emergence of public science in nineteenth century Britain. Established on the then-immediate periphery of London, the gardens of the Zoological Society were one of the first zoological establishments to accommodate aspects of leisure and urban renovation with scientifically oriented perspectives. Its foundation marked the start of a new era in zoo history and the subsequent expansion of zoological gardens around the world, evolving into a national institution and world-famous organisation. To quote Solly Zuckerman, the anatomist and secretary of the ZSL between 1955-1977, the Zoological Society of London has always been a unique and complex institution, offering 'entertainment, interest and valuable information to both amateur and professional zoologists'.²

¹ E. T. Bennett, *The Gardens and Menagerie of the Zoological Society Delineated: Quadrupeds, Vol. I.* (London: C. Whittingham, 1830), p. v.

² The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40), ed. By S. Zuckerman (London: Academic Press, 1976), frontmatter.

In the mid-1820s, however, these characteristics were not yet affirmed. Founded at the end of the Georgian era, the Zoological Society of London was still a novel idea. It was a new kind of venture which, especially in the first few decades, underwent a series of transformations that radically changed the nature of the institution.³ For early nineteenth century contemporaries, the Zoological Society was an innovatory institution that emerged out of a complex set of interactions, involving different people, ideas, and localities. It was not a simple process but a series of negotiations with conflicting interests, successes, and failures. The first two decades were particularly turbulent, and despite Edward Bennett's (the secretary of the ZSL 1833-1836) optimistic outlook in 1830 – as quoted at the start of this chapter - the opportunities for making oneself acquainted with the appearance and manners of the animal world were not as straightforward as they first appeared. Access to the gardens was restricted to fellows and friends of the Society, whilst even the ZSL's core principles faced public criticism and internal division. In its earliest form, the ZSL was not an assured social venture but a tentative project at the forefront of Britain's scientific awakening.

This all changed in 1847, when David William Mitchell was elected secretary of the Zoological Society of London. Under his guidance the ZSL was completely transformed, opening the gardens to the general public and paving the way for a new period in the institution's history. It was a progressive move that flew in the face of exclusivity, rank, and elegance that successive councils had previously adopted. New enclosures were built and the number of animals increased dramatically. The Society's council recognised 'the need to keep regular attractions' and adopted a policy that turned certain animals into star attractions.⁴ The starring system ensured that there was always at least one new animal exhibit in the gardens, presenting them in terms of their 'scientific or political significance, as evidence of [Britain's] ability to subdued exotic territories and convert their wild products to useful purposes'.⁵ The resultant policy accelerated the commodification of zoological recreations in the gardens, which in contrast to

³ T. Ito, *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014), p. 21.

⁴ T. Ito, London Zoo and the Victorians, p. 120.

⁵ H. Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987), p. 215.

the ZSL's earlier objectives, rehabilitated the Society's reputation 'with the pleasures of music, literary imagination and physical exercise'.⁶

The charm of novelty signified a new stage in the ZSL's history, moving from a generic scientific perspective towards a more competitive leisure market. The gardens were no longer the revered private space that Edward Bennett and his fellow country gentleman had formerly enjoyed. The allurements attached to zoology were now open to a much broader class of visitors, redefining the Society's mission.⁷ Consequently, the way the animals were displayed changed dramatically, and as the living collection expanded other branches experienced a decline. To refer back to Bennett's statement mentioned above, in 1830 the Zoological Society's gardens and museum were both essential parts of the higher departments of animated nature, serving different yet complimentary roles. By 1847, the perceived importance of the museum had steadily waned. Between Bennett's statement and the start of Mitchell's secretaryship, there was a decisive shift in the Society's display of nature, prioritising the living collection over its preserved one. The manner in which animals were exhibited changed, shifting from dead to living specimens. But why was that the case? Although Mitchell largely inherited this imbalance, the museum's importance was intrinsically tied to the wider developments of the Society's living collection in the first half of the nineteenth century. The museum's demise signalled the end of the Zoological Society's desire to display animals in a taxidermied fashion. The disparity between the living collection and the taxidermied collection therefore raises some important questions about the purpose of the Zoological Society in its earliest form and the subsequent effects David Mitchell's policies had on the gardens. Why was there a shift in the way the ZSL displayed its animals, and what factors influenced this change? How did this impact the ways the gardens were valued? An analysis of these changes can shed light on the wider implications of the Zoological Society in the mid-nineteenth century, exploring the various twists and turns of the institution's earliest developments.

The chapter will therefore begin with the founding years of the London Zoological Society, focusing on its establishment in 1826 and the construction of

⁶ T. Ito, *London Zoo and the Victorians*, p. 136.

⁷ H. Ritvo, *The Animal Estate*, p. 214.

the zoological gardens. The following section will then look at the role David Mitchell played in revitalising the ZSL, exploring how his policies affected the relationship between science and recreation in the gardens space after 1847. Lastly, the chapter will consider how Mitchell's new approaches changed the way animals were valued in the gardens, moving away from taxidermied specimens towards live animals. This museological transition was most evident in the decline of the Society's museum, which was sold to the British Museum and regional museums in 1855. Between 1851 and 1852, however, there was a short-lived attempt to revitalise the appeals of a taxidermied collection when John Gould displayed a temporary collection of hummingbirds in the gardens. The dissolution of the museum collection nevertheless marked the end of the ZSL's in-house efforts to promote a scientific based education using taxidermied specimens, reflecting the Society's wider shift from dead to living specimen displays. In order to grasp the significance of these later developments however, it is first worth considering the origins of the Zoological Society of London.

The making of an institution: The early years at the ZSL and the Zoological Gardens 1824-1847

In August 1824, Sir Thomas Stamford Raffles, the former lieutenant-Governor of Bencoolen on West Sumatra and an influential figure in making Singapore an entrepôt trading post for the British Empire, arrived back in Britain after nearly thirty years in the service of the British East India Company.⁸ Having spent most of his life in Southeast Asia, Raffles had developed a keen interest in zoology and natural history, and, following his final return to England in 1824, he was determined to expand the branch of natural history into a profitable field of scientific research.⁹ Enlivened by an 'already keen interest in natural history', Raffles was deeply invested in virtually all branches of natural history, but, having

⁸ J. Huang, 'Stamford Raffles and the 'Founding' of Singapore: The Politics of Commemoration and Dilemmas of History', *JMBRAS*, Vol. 91, Part. 2, No. 3 (Dec., 2018), pp. 103-122; F. A. Noor, *The Discursive Construction of Southeast Asia in 19th-Century Colonial-Capitalist Discourse* (Amsterdam: Amsterdam University Press, 2016), pp. 65-97.

⁹ J. Bastin, 'Sir Stamford Raffles and the Study of Natural History in Penang, Singapore and Indonesia', *JMBRAS*, Vol. 63, No. 2 (259), (1990), pp. 1-25 (p. 4); T. P. Barnard, *Imperial Creatures: Humans and Other Animals in Colonial Singapore, 1819-1942* (Singapore: NUS Press, 2019), pp. 21-22.

witnessed the prospects of his own zoological encounters in Southeast Asia, he was resolute in creating a zoological institution that could rival the *Muséum national d'histoire naturelle* and the *Jardin des plantes* in Paris.¹⁰ When he finally returned to Europe, Raffles was confident that 'more than a hundred subscribers would be ready to join' his cause and establish a zoological society.

The idea of founding a zoological society had been a personal project for Raffles for some time, and his ideas were warmly received by Sir Joseph Banks – then President of the Royal Society (1778-1820) – during a visit to England in 1817.¹¹ Thus, when Raffles indefinitely returned to England seven years later, he immediately set out to turn his vision into a reality. Of course, Raffles was not the only person pushing for a zoological institution in the early 1820s, and, coinciding with his own efforts, a number of similar ideas were already in circulation. In September 1823, an anonymous correspondent, who gave their initials as 'C.T.', addressed a letter to the editor of the *Morning Chronicle*, emphasising the urgent need for a zoological garden in London. According to Helen Cowie, 'C.T.' hoped the letter would draw public attention to 'a subject which other nations have not thought beneath their notice'.¹² A national zoological collection would be beneficial for Britain, both socially and scientifically, raising the country's status

¹⁰ In 1820, when Raffles returned to Bencoolen, he established a menagerie at Dove's Rise, his country house about twelve miles from Fort Marlborough, where he indulged his passion for natural history. Raffles also had some success in keeping live animals elsewhere in Southeast Asia. He had housed two orangutans at Malacca, kept a number of animals in Penang, and raised a Malayan sun bear 'that was brought up in the nursery with his children and often admitted to his table' in West Sumatra. However, he later lost his private menagerie onboard the Fame, which caught fire on his return voyage to England in February 1824. The 'shameful carelessness of the steward', who caused the fire by striking a naked light to draw off brandy from a cask, resultantly destroyed all '[his] splendid collection of drawings, upwards of two thousand in number', papers and maps, not to mention his collection of living animals. Raffles later wrote, 'we were, in short, in this respect, a perfect Noah's Ark'. See, D. C. Boulger, The Life of Sir Stamford Raffles (London: H. Marshall, 1897), p. 344; J. Bastin, 'Sir Stamford Raffles and the Study of Natural History in Penang, Singapore and Indonesia', pp. 3-4; J. Bastin, 'The Letters of Sir Stamford Raffles to Nathaniel Wallich 1819-1824', JMBRAS, Vol. 54, No. 2 (240), (1981), pp. 1-73 (p. 65); S. Raffles, Memoir of the Life and Public Service of Sir Stamford Raffles, Particularly in the Government of Java, 1811-1816 and of Bencoolen and its Dependencies, 1817-1824 (London: J. Murray, 1830), pp. 361-373; 'Remarks on Thomas Raffles' Paper 'On the Birds of Sumatra' – Thomas Horsfield', LS, SP/934; C. M. Turnbull, 'Sir (Thomas) Stamford Bingley Raffles (1781-1826)', Oxford Dictionary of National Biography, https://www.oxforddnb.com/display/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-23010?rskey=Gaifhr&result=2.

¹¹ H. Scherren, *The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library* (London: Cassell & Co, 1905), pp. 6-8.

¹² H. Cowie, *Exhibiting Animals in Nineteenth Century Britain: Empathy, Education, Entertainment* (London: Palgrave, 2014), p. 12.

and international image.¹³ The correspondent argued that now, nearly a decade after the Napoleonic Wars, would be an ideal time to found such an establishment, since it would be well suited to 'these times of peace and general improvement'.¹⁴

Around the same time, on 29th November 1822, a meeting was held in Joseph Bank's old house in Soho Square to establish a zoological club under the umbrella of the Linnean Society.¹⁵ Chaired by William Kirby, the Zoological Club was an internal organisation established as a forum for discussing zoological matters, encouraging Linnean fellows and prospective members to be 'just as much interested in animals as in plants'.¹⁶ Created with good intentions, to some extent, the club was a reaction to the Linnean Society's wider preoccupation with botany, which, eclipsed by the powerful pre-eminence of Joseph Banks at the Royal Society, had driven the Linnean Society's interests at the expense of other natural history branches. Members of the club, such as Nicolas Aylard Vigors and Joseph Sabine, had become dissatisfied with the Linnean Society's ethos, and, besides advocating an English quinarian system of taxonomy, the club was a mild-mannered revolt against 'the [Linnean] Society's autocratic and outmoded restrictions'.¹⁷ Hence, the Zoological Club provided its members with a useful 'semi-autonomous scholarly forum', publishing works within the internally produced Zoological Journal.¹⁸ Nevertheless, the Linnean Society council continued to undermine the club, imposing several administrative restrictions until the club was disbanded in November 1829.

The Zoological Club did not play a direct role in the formation of the Zoological Society of London – Raffles was eligible, having been elected a Fellow

¹³ Morning Chronicle, 9 September 1823.

¹⁴ H. Cowie, *Exhibiting Animals in Nineteenth Century Britain*, p. 12.

¹⁵ 'Zoological Club Nov. 1822 to Nov. 1829 - Drafts, Notes and Correspondence', LS, ZC/6.

¹⁶ H. Scherren, *The Zoological Society of London*, p. 2.

¹⁷ A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part I', *HoS*, Vol. 23, No. 2 (1985), pp. 153-185 (p. 157). For more on the quinarian system see, E. Mayr, *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge, MA: Belknap Press, 1982), pp. 202-203; A. Novick, 'On the Origins of the Quinarian System of Classification', *Journal of the History of Biology*, Vol. 49 (2016), pp. 49-95; D. A. Lowther, 'The Reverent Eye: Scientific Visual Culture and the Origins of Modern British Zoology, 1815-1840 (Unpublished PhD Thesis: Newcastle University, 2016), pp. 1-107.

¹⁸ The Zoological Journal outlasted the Zoological Club by a number of years and continued to print until 1834. See, T. Ito, *London Zoo and the Victorians*, p. 22; A. Desmond, 'The Making of Institutional Zoology...Part I', p. 157.

of the Linnean Society in 1825, but chose not to join the club – however, in concurrence with John Bastin, it would be a mistake to argue the two bodies were completely disconnected.¹⁹ As noted by Nicholas Vigors, the last Club chairman and the first ZSL secretary, when the Club disbanded the Zoological Club was 'one embryo of that higher body [the Zoological Society] which has now sprung into perfect form'.²⁰ It is conceivable that Raffles' project was discussed in scientific circles both before (via Joseph Banks) and after his indefinite return to England, especially among the Fellows of the Royal and Linnean Societies, to both of which Raffles, Joseph Banks (until his death in 1820), William Kirby, Nicolas Aylard Vigors, and Joseph Sabine belonged. Thus, when Raffles privately circulated a detailed prospectus regarding the formation of a zoological society in July 1824, an assortment of 'friends of the proposed Society' met to discuss the proposition, setting the terms of a general advancement of zoological science into motion.²¹ They nominated a committee to rework the prospectus, and on 1st March 1825 a draft was ready. It would become the first official prospectus of the Zoological Society of London.²²

The proposition appealed to many initial supporters, especially Nicholas Vigors and his colleagues at the Zoological Club, to whom, for want of legitimacy, almost immediately transferred their allegiance 'knowing the restrictions the Linnean body continued to impose' on the Zoological Club.²³ Of the twenty-eight members at the Zoological Club, fifteen enlisted as members of the Zoological Society and 'a number of Club officers stepped into administrative roles in the Society'.²⁴ There were some concerns about the new institution, however, not least from Sir Humphrey Davy who had succeeded Banks as President of the

¹⁹ J. Bastin, 'The First Prospectus of the Zoological Society of London: New Light on the Society's Origins', *Journal of the Bibliography of Natural History*, Vol.5, No. 5 (1970), pp. 369-388.

²⁰ P. L. Sclater, A Record of Progress of the Zoological Society of London during the Nineteenth Century (London: W. Clowes, 1901), p. 146.

²¹ H. Scherren, *The Zoological Society of London*, p. 10.

²² H. Scherren, *The Zoological Society of London*, p. 10.

²³ T. Ito, *London Zoo and the Victorians*, p. 22. Once the Zoological Society was founded the Zoological Club went into rapid decline. Whilst the latter always had relatively low membership, after April 1826 it was made worse when the meetings were regularly cancelled due to lack of support. The club's finances subsequently went into the red, and in 1829, almost inevitably, the Zoological Club was discontinued.

²⁴ P. L. Sclater, *A Record of Progress*, p. 145; N. Murray, 'Lives of the Zoo: Charismatic Animals in the Social Worlds of the Zoological Gardens of London, 1850-1897' (Unpublished PhD Thesis: Indiana University, 2004), p. 21; A. Desmond, 'The Making of Institutional Zoology', p. 157.

Royal Society (1820-1827). Since his appointment at the Royal Society, Davy had faced 'increasing demands for the reform of scientific societies by men of scholarly merit and reputation', and, in wanting to preserve his reputation, deliberately 'involved himself in the foundation of the Zoological Society in order to maintain his influence in the emerging field'.²⁵ Conscious of the need to have support beyond what he called 'those scientific persons', Davy recommended the new society collaborate with the landed gentry to secure greater provisions.²⁶ In Davy's view, this strategy would take advantage of the political-financial patronage and personal connections of the landed elite, recruiting members who 'preferred to collect exotic animals rather than discuss scholarly nomenclature'.²⁷ For Davy this would incorporate the social and financial influences he thought the nascent Society needed. Consequently, a compromise was reached, and a revised prospectus was published in late March 1825; the new copy was denuded of terminology likely to appeal to natural historians over the country gentlemen and aristocrats. The objectives of the Society therefore became those of utility in its earliest attention, and, if the Society could later afford it, would subsequently focus on the means of more scientific views. 'A philosophy of zoology' would henceforth be fixed 'on the permanent basis of direct utility'.28

From the start Davy's intervention split the infant Society's initial objectives between the practical application of zoology and the philosophical study of animals, a condition that would later divide the different factions of the Society. Raffles was keenly aware of this, and acknowledged the division in a letter to his cousin a few days before the updated prospectus was issued. He wrote, 'Sir Humphrey Davy and myself are the projectors, and while he looks more to the practical and immediate utility [of] the country gentlemen, my attention is more directed to the scientific department'.²⁹ The tension between utility and a philosophy of science would evolve into a divisive topic, but in their initial formation at least, the two strands acted in relative harmony. Davy was still an

²⁵ T. Ito, London Zoo and the Victorians, p. 22.

²⁶ This was a strategy Joseph Banks had previously adopted at the Royal Society. See, *The Collected Letters of Sir Humphrey Davy, Vol. 3: 1817-1826*, ed. T. Fulford & S. Ruston (Oxford: OUP, 2021), No. 995, letter dated 3rd March 1825.

²⁷ T. Ito, London Zoo and the Victorians, p. 23.

²⁸ P. C. Mitchell, *A Centenary History of the Zoological Society of London* (London: Printed for the Society, 1929), p. 9.

²⁹ Quoted in H. Scherren, *The Zoological Society of London*, pp. 16-17.

invaluable figure who helped Raffles establish the Zoological Society of London, providing the project with a level of respectability as a secondary promotor. Davy ensured that enlightened subscribers and influential aristocrats were drawn to the new Society, sourcing the much needed financial backing. The period of incubation was over and the new Society could duly hatch.

In April 1826, the Zoological Society of London was officially founded, following several months of negotiation with the government for support. It was a shaky start - the government was unable to offer any financial support - but the Society pulled through, and was formed with the responsibility for advancing 'zoology and physiology, and the introduction of new and curious subjects of the animal kingdom' to Britain.³⁰ Raffles was elected the president and Nicolas Aylard Vigors as secretary. Significant support was granted by members of the scientific community including Sir Humphrey Davy and Joseph Sabine, the latter being the honorary secretary of the Horticultural Society, and both were duly elected to the council.³¹ Financial support was also granted by gentlemanly menagerists, politicians, and aristocratic patrons, including the future presidents Henry Petty-Fitzmaurice, 3rd Marguis of Lansdowne (ZSL President 1827-1831), and Edward Smith-Stanley, 13th Earl of Derby (ZSL President 1831-1851), who raised the additional funds through subscription fees. At the close of the year, the Society had 342 members, 'drawn mostly from the world of science but discreetly seasoned with a sprinkling of [polite society]', whose subscriptions, along with those received in 1825, amounted to £1829.32 The council immediately set to work, and, over the next few years, the main features of the Zoological Society were developed.

³⁰ The Charter, By-Law and Regulations of the Zoological Society of London (London: Taylor & Francis, 1829), p. 5. For more information see, J. Bastin, 'The First Prospectus of the Zoological Society of London', pp. 369-388; T. Ito, London Zoo and the Victorians, p. 22; S. Zuckerman, 'The Zoological Society of London: Evolution of a Constitution', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40*), ed. By S. Zuckerman (London: Academic Press, 1976), pp.1-16 (p.10).
³¹ See, D. P. Miller, 'Between Hostile Camps: Sir Humphrey Davy's Presidency of the Royal

³¹ See, D. P. Miller, 'Between Hostile Camps: Sir Humphrey Davy's Presidency of the Royal Society of London, 1820-7', *BJHS*, Vol. 16, No. 1 (1983), pp.1-47; H. R. Fletcher, *The Story of the Royal Horticultural Society, 1804-1968* (Oxford: OUP, 1969), p. 113.

³² W. Blunt, *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976), p. 25; H. Scherren, *The Zoological Society of London*, p. 24.

Regrettably, Sir Stamford Raffles did not see this come to fruition. He died suddenly aged forty-five on 6th July 1826 between the second and third meetings of council. He had only been able to attend one of the ZSL council meetings; Raffles was the first and shortest serving President of the Zoological Society of London.³³ Saddened by the loss, the council nevertheless pressed on, itemising the Society's main goals: to establish a zoological garden, construct a zoological museum and library for scientific research, promote experimental breeding on a farm in the countryside, organise a set of rooms for administrative work and scientific meetings, and publish its findings in specialist journals. The most elaborate of these was the zoological gardens.

Two months before his death, Raffles, along with the 1st Earl of Auckland, had applied to the Commissioners of Woods and Forests to construct a menagerie in Regent's Park. The choice was a reasonable proposition, as Regent's Park had been transformed into a 'picturesque garden...integrated into the expanding residential areas of the metropolis' in the aftermath of the Napoleonic Wars.³⁴ The ZSL's first proposal was rejected – they initially requested a piece of land in the park's Inner Circle – but after an abrupt intervention by Davy, the Society was able to secure a piece of land in the northeastern corner in July 1826. With the basic layout of the Regent's Park completed by the 1820s, the Zoological Society's allocated plot was still an attractive option, and was easily accessible to prospective patrons in polite society.³⁵ With a more or less site secured, the next task was to appoint an architect to construct a series of dens for the animals, to which the council turned to Decimus Burton.

Seen as an up-and-coming talent, Decimus Burton was 'a clever and ambitious man who had already won fame' with a number of projects around the

³³ It is most likely Raffles had a stroke but other diagnoses point to a brain tumour. As Peter Chalmers Mitchell noted, the Zoological Society was 'no more than a babe in arms' when Raffles died, yet he lived long enough 'to stamp its future with his strong personality'. See, W. Blunt, *Ark in the Park*, p. 25; P. C. Mitchell, *A Centenary History of the Zoological Society of London*, p. 30. ³⁴ T. Ito, *London Zoo and the Victorians*, pp. 24-25.

³⁵ T. Ito, *London Zoo and the Victorians*, p. 26. For the origins and history of Regent's Park see, J. Anderson, 'Marylebone Park and the New Street: A Study of the Development of Regent's Park and the Buildings of Regent Street, London, in the First Quarter of the Nineteenth Century' (Unpublished PhD Thesis, University of London, 1998); J. Summerson, 'The Beginnings of Regents Park', *Architectural History*, Vol. 20 (1977), pp. 56-62+90-99.

capital, most notably the clubhouse of the Athenaeum Club, the Palm House and Temperate House at Kew Gardens, and the villas around Regent's Park.³⁶ The ZSL council considered itself fortunate to have acquired his services, and, in due course, he was appointed the Society's official architect.³⁷ By July 1827, Burton's plans for the first five acres of the garden were ready, and on 7th August additional plans were submitted to build on the north side of the Outer road. The gardens of the Zoological Society of London (what would later colloquially become known as London Zoo) were officially opened on 27th April 1828 by the Duke of Wellington – then Prime Minister (1828-1830) – offering restricted access to subscribers of the Zoological Society and their friends upon payment of 1s plus a written order

the Zoological Society and their friends upon payment of 1*s* plus a written order from a Fellow.³⁸ It was a private preserve for the wealthy and scientifically-minded members of British society.

The main area of the gardens amounted to a small triangle on the south side of the Regent's Park Outer Road, forming 'an informal enclave with meandering paths and a raised terrace', but, after receiving permission from the Commissioners of Woods and Forests, the ZSL was also able to develop a six acre strip on the north side of the Outer Circle just south of the Regent's canal. This became the middle gardens following a royal charter in 1829, which legally confirmed the institution's identity as a charted body.³⁹ By 1831, the main gardens were enlarged to ten acres, and an additional three acres were added north of the canal in what would become the north gardens [figure 2].⁴⁰ Although the gardens were an irregular shape, Decimus Burton tried to utilise as much of the available space as possible, constructing rustic garden style buildings that Peter Guillery has described as architectural 'follies set in an elegant garden'.⁴¹ This

³⁶ D. Arnold, *Reading Architectural History* (London: Routledge, 2002), pp. 66-67.

³⁷ W. Blunt, Ark in the Park, p. 28.

³⁸ C. Grigson, *Menagerie: The History of Exotic Animals in England* (Oxford: OUP, 2018), p. 250.

³⁹ P. Guillery, *The Buildings of London Zoo* (London: Royal Commission on the Historical Monuments of England, 1993), p. 2; N. Murray, 'Lives of the Zoo', p. 22; P. C. Mitchell, *A Centenary History of the Zoological Society of London*, pp. 37-43, 61.

⁴⁰ T. Ito, *London Zoo and the Victorians*, 29. The land north of the canal was given up in 1841 only to be reacquired in 1869. Hence, between 1841 and 1869, the council referred to the middle gardens as the 'north garden'. However, the full extent of the north gardens was not used until 1905-6. Given the thesis covers the period before and after the ZSL reacquired the land north of the canal, the different parts of London Zoo will be referred to as the main, middle, and north gardens – if applicable - to avoid confusion. See, P. Guillery, *The Buildings of London Zoo*, p. 5.
⁴¹ J. W. Toovey, '150 Years of Buildings at London Zoo', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of*)

included a tunnel that connected the middle and main gardens, a gothic llama/camel house built in 1829 – an accompanying clock tower was added in 1831 – and a thatched roof elephant stable and a Tuscan brahmin bull house that were both built 1830-1 [figure 3].⁴² A giraffe house was also erected in 1837. These buildings reflected a picturesque *cottage orné*, whilst the giraffe house was more firmly rooted in the functionalism of contemporary industrial architecture.⁴³ The buildings were as varied as the occupants, but the general layouts were designed to display the animals as much as the structures, giving the architecture an 'aura of novelty'.⁴⁴

The gardens also contained several other structures as well, including landscaped lawns and enclosures that housed a surprising number of animals. On the south side of the main gardens, for instance, the Society installed a row of monkey poles with small shelters on the top. The monkeys, usually one per pole, each had a thin leather belt tied around their bodies with a lightweight chain that slid up and down the pole. Though quite rudimentary, the harnesses enabled the monkeys to run around the base of the poles or climb into the shelters when necessary.⁴⁵ Close contact between visitors and monkeys was possible, indeed inevitable, and explains why so 'many hats, gloves, and handbags were purloined'.⁴⁶ By the mid-1830s, London Zoo had become a 'new urban amenity', enjoying increased popularity despite the access being restricted to friends and

London on 25 and 26 March, 1976 – No.40), ed. S. Zuckerman (London: Zoological Society of London, 1976), pp. 179-202 (p. 180). Also see, T. Ito, *London Zoo and the Victorians*, p. 31; D. Arnold, 'A Family Affair: Decimus Burton's Designs for the Regent's Park Villas', in *The Georgian Villa*, ed. D. Arnold (Stroud: A. Sutton, 1996), pp. 105-117.

⁴² P. Guillery, *The Buildings of London Zoo*, pp. 2-5.

⁴³ See, W. H. Pierson, 'Notes on Early Industrial Architecture in England', *Journal of the Society of Architectural Historians*, Vol. 8, No. 1/2 (1949), pp. 1-32; P. Elliott, 'The Derbyshire General Infirmary and the Derby Philosophers: The Application of Industrial Architecture and Technology to Medical Institutions in Early-Nineteenth-Century England', *Medical History*, Vol. 46 (2000), pp. 65-92.

⁴⁴ P. Guillery, *The Buildings of London Zoo*, p. 3. Burton designed most of the Society's early buildings, ranging from a coal cellar to the first carnivora terrace. He also designed the Society's Raven Cage, Bear Pit, and Promenade walk. For more information see, J. W. Toovey, '150 Years of Buildings at London Zoo', p. 180.

⁴⁵ 'Gardens of the Zoological Society, Regent's Park', *Mirror of Literature, Amusement and Instruction*, No. 330, 6 September 1828, p. 149.

⁴⁶ J. Barrington-Johnson, *The Zoo: The Story of London Zoo* (London: R. Hale, 2005), p. 21. This happened so often that the monkeys were eventually moved to an indoor house, built in 1839, and the following year outside cages were added. See, P. L. Sclater, *A Record of Progress*, p. 163.

fellows of the Society.⁴⁷ The novelty of the venture had got it off to a good start, and attendance to the gardens passed a quarter of a million for the first time in 1831. For the next five years, this never dropped below 210,000, a factor that was helped by a number of special-interest animals, such as the Society's first four giraffes in 1836. However, some problems still remained, and following this initial period of prosperity there was a slow and steady decline that continued into the late 1840s.

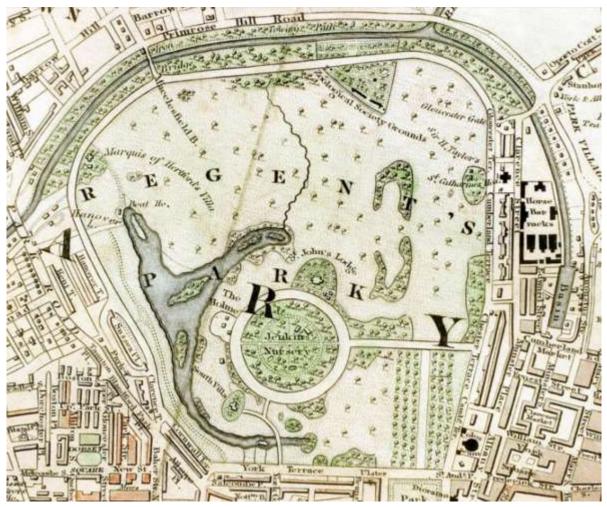


Figure 2. The original application requested land in the Inner Circle (labelled Jenkin's Nursery) but the Zoological Society was granted land in the northeast corner. The north garden, between Primrose Hill Road and the canal, is not included on this map. Map segment from 'Improved Map of London for 1833, from Actual Survey', engraved by W. Schmollinger (London: 1833), The Barry Lawrence Ruderman Map Collection, Stanford University Libraries.

⁴⁷ T. Ito, London Zoo and the Victorians, p. 52.



Figure 3. Left Image: Llama hut *(Top left)* Tunnel *(Bottom left), The Mirror of Literature, Amusement, and Instruction,* 25th February 1832, No. 535, LMA, SC/PZ/SM/01/261; Right Image: Elephant stable (*Middle*) Brahmin bull house *(Bottom right), The Mirror of Literature, Amusement, and Instruction,* 16th June 1832, No. 552, LMA, SC/PZ/SM/01/248.

As the first learned institution of its kind, the young Zoological Society had to learn how to manage itself, and despite displaying a lot of animals for the first time in captivity, it was quite an ordeal keeping multiple animal species alive. Enthusiasm usually outweighed criticism, but after the death of Edward Bennett in August 1836, the Society's energetic and distinguished secretary since 1833, there came a succession of men who were either 'too ill or too busy to give much attention to the affairs of the Society'.⁴⁸ The Society's internal politics were always a little strained, especially between the gentlemen breeders and those more inclined to scientific endeavours, but, in the 1830s, these tensions became even more acute. Different factions clashed over the directions of the Society, disagreeing on how it should be administrated, who should have access to the gardens and when, and whether specific funds should be devoted to the Society's museum or library. In 1830, the pro-science faction managed to force the council to disband the breeding farm at Kingston Hill in Surrey, and three years later the leasehold lands were completely given up.⁴⁹ For gentleman breeders and wealthy patrons wanting to fill their estates with ornamental animals and exotic game, the dissolution of the farm was a severe blow to the Society's utilitarian branch. These differences, according to Takashi Ito, 'culminated at the council ballot in 1835', when a reform lobby tried to oust the Tory coterie which had steadily gained control on the council.⁵⁰ The pro-science advocates were unsuccessful, losing two of their most powerful supporters on the council at the annual general meeting, and 'the Peelites' continued to influence the Society's management.⁵¹ Divisions were firmly entrenched, and subsequent councils became more concerned with utility and leisure, stringently trying to improve the recreational facilities in the gardens.

⁴⁸ W. Blunt, Ark in the Park, p. 37.

⁴⁹ The farm lands were placed in the hands of an agent for disposal and the remaining animals were transferred to the northern portion of the zoological gardens in Regent's Park. See, P. L. Sclater, *A Record of Progress*, p. 157.

⁵⁰ T. Ito, *London Zoo and the Victorians*, p. 40; A. Desmond, 'The Making of Institutional

Zoology in London 1822-1836: Part II', HoS, Vol. 23, No. 3 (1985), pp. 223-250 (pp. 235-241).

⁵¹ The lobbyists tried to prevent the council from removing their advocates. However, the motion passed when the President, the Earl of Derby, mustered Tory affiliated absentees at a second ballot after he nullified the original vote. He argued there were too many members who had not yet paid their subscription and were therefore not valid votes. See, A. Desmond, 'The Making of Institutional Zoology...Part II', pp. 235-241.

Attendance to the zoological gardens peaked at 260,000 in 1836 - mainly due to the four giraffes – but it quickly fell to 173,778 in the following year. A series of honorary secretaries then took charge but chiefly looked upon their office as a position of scientific dignity. They preferred to leave the 'day-to-day work to the paid assistants who, however keen and diligent', carried little to no weight at the council; from this point onwards there was a steady decline in the gardens' admissions.⁵² During William Ogibly's secretaryship (1839-1847), admissions hovered around 100,000 per annum between 1842 and 1846, and in 1847 the gardens attendance shrank to 88,582 (excluding those who attended Promenade-days).⁵³ Admission to the gardens accounted for around 40 per cent of the Society's annual revenue during Ogilby's secretaryship, and as attendance fell, so did the Society's income.⁵⁴ Things also went from bad to worse at the close of 1843. The Society ran up a significant deficit of over £3,000, and 'the funded capital of the Society decreased by nearly £2,500 to £10,642, reaching £3,826 in 1848'.⁵⁵ The Society was losing money faster than it could make, and in terms of memberships, recruitment quickly followed suit. There were 3,050 members in 1836, but just over a decade later this had reduced to 1,710, the lowest figure reached since 1829.56

It was becoming clear that change was necessary. The council urgently needed to balance its dwindling resources if it wished to keep the gardens as attractive as possible – its chief financial asset but also its biggest burden. The Zoological Society was in serious trouble, incurring annual deficits between 1844

⁵² W. Blunt, Ark in the Park, p. 85.

⁵³ P. L. Sclater, *A Record of Progress*, pp. 166-170. Promenade days were exclusively reserved for fellows and friends, and ran from 1844 until 1849. The price of admission was 3*s* 6*d* and to obtain a ticket it was necessary to have an order from a fellow who could purchase tickets for their friends at 2*s* 6*d*. Promenades increased the Society's revenue but were eventually dropped when the gardens opened to the public. See, H. Scherren, *The Zoological Society of London*, p. 95.

⁵⁴ This excludes other forms of income connected with the gardens, such as guidebook receipts, admission annuities, annual subscriptions, ivory tickets, and compositions. By comparison, the gardens accounted for 77 per cent of the Zoological Society's gross expenditure between 1839 and 1847. This included the cost of the keeper's clothes, works and repairs to buildings, land expenses, and rent. Unlike other learned societies, the cost of running the menagerie was extremely high. Food supplies typically exceeded £2000 per annum and new constructions were often expensive, usually costing no less than £1400 per annum. See, RoC (1840-1848).

⁵⁵ This was due to the construction of a new carnivora terrace and promenade walk. See, T. Ito, *London Zoo and the Victorians*, p. 114.

⁵⁶ T. Ito, *London Zoo and the Victorians*, p. 114.

and 1847.⁵⁷ The council realised it would only be a matter of time before the Society would be forced to change its course or face insolvency. Feeling the pressure to reconstruct, the council had no other option but to arrest the decline. It was therefore quite fortuitous that Ogilby resigned in December 1846, giving the council the much needed breathing space for change.⁵⁸ The resultant secretary appointment became, at least in hindsight, a turning point in the Society's history and a chance for recovery. The change came in the form of David William Mitchell who was duly appointed secretary in February 1847.

From private preserve to public space: David William Mitchell and the gardens of the Zoological Society of London

The vacancy of the secretaryship of the Zoological Society of London was high on the agenda at the ZSL council meeting following Ogilby's formal resignation in January 1847. Having sent a letter of thanks to Ogilby for his services on 20th January, at the next three meetings the council deliberated extensively on the duties of the secretaryship, establishing a committee to advertise and appoint someone to the role. Since the Society's foundation, and like all other positions on the ZSL council, the role of secretary had been a voluntary post. However, after a 'mature deliberation upon the exigences of the office thus left vacant', the committee concluded that the council could not justly expect the postholder to take on the degree of responsibility as secretary so long as the position remained honorary.⁵⁹ The charter and byelaws of 1829 were silent on the question of payments to council members, so, as a means of fixing the deficiency, the council decided to depart with the unwritten rule and make the vacancy a fixed salary post, paying the postholder no less than £250.60 Two weeks later, David William Mitchell was appointed a member of council and assumed the role of secretary of the Zoological Society of London.

⁵⁷ P. L. Sclater, A Record of Progress, pp. 167-171.

⁵⁸ William Ogilby issued his letter of resignation to the council on 20th December 1846, explaining he had to return to Ireland to manage his estate and 'keep 30 to 40 heads of families...from actual starvation' in the wake of the Irish Famine. See, ZSLA, CMM, 6 January 1847. ⁵⁹ RoC (1847), pp. 5-6.

⁶⁰ S. Zuckerman, 'The Zoological Society of London: Evolution of a Constitution', p. 7; ZSLA, CMM, 3 February 1847.

Very little is known about David William Mitchell prior to his appointment at the ZSL, and, according to Ito, it is not entirely clear why he was appointed to the post.⁶¹ However, from seemingly disconnected sources, it appears that Mitchell was better suited for the job than has previously been conjectured. Born in Buckinghamshire in 1813, David Mitchell was a graduate from Christ Church College, Oxford, and, having finished his studies in 1836, had moved to Cornwall with his wife in the mid-to-late 1830s.⁶² He was an avid ornithologist and bird spotter, and had quickly become interested in Cornish fauna and flora, helping set up the Penzance Natural History and Antiquarian Society (PNHAS) in 1839, for which he served on the council in 1840.63 Mitchell was a competent ornithological illustrator and collector, which, alongside his experience at the PNHAS, improved his connections with some of the most respectable naturalists of the day – perhaps an early indication of his ambitions within the scientific community. In June 1840, Mitchell sent William Yarrell (a Linnean Society Fellow and an original member of the ZSL) a coloured drawing of a pectoral sandpiper he had shot whilst on one of the Scilly isles.⁶⁴ Yarrell was particularly impressed, and later acknowledged some of Mitchell's other liberalities in A History of British Birds, praising his work on sea-fowl, as well as thanking him for loaning an Iceland gull specimen from his private collection.⁶⁵ Yarrell even referenced an occasion Mitchell housed a shearwater seabird that had been captured, alive, prior to a fishing expedition. The bird had been asleep in the boat and another two were later presented to Mitchell, having been 'taken by hooks' from the cliff face.⁶⁶ Although the birds were probably taxidermied shortly after, the occasion alluded to Mitchell having prior experience with live birds before his appointment at the ZSL.

⁶¹ T. Ito, London Zoo and the Victorians, p. 117.

⁶² 'David William Mitchell: Buckinghamshire Baptism Index', Buckinghamshire Archives, D-A/T/38; A Catalogue of all Graduates in Divinity, Law, Medicine, Arts and Music, who have Regularly Proceeded or been Created in the University of Oxford, between October 10, 1659, and December 31, 1850 (Oxford: OUP, 1851), p. 457.

⁶³ He donated money to its cause and become an annual subscriber. See, *Transactions of the Natural History and Antiquarian Society of Penzance, Established in 1839, Vol. 1 – 1845-1850* (Penzance: F. T. Vibert, 1851), pp. 14, 16.

⁶⁴ Transactions of the Natural History and Antiquarian Society of Penzance...Vol. 1, p. 422.

 ⁶⁵ W. Yarrell, A History of British Birds: Vol. 3 (London: J. Van Voorst, 1843), pp. 461, 509, 525.
 ⁶⁶ W. Yarrell, A History of British Birds: Vol. 3, p. 504.

Yarrell and Mitchell continued to correspond, and, in 1843, Yarrell, seconded by ornithologist John Gould and others, approved Mitchell's certificate of recommendation to the Linnean Society of London.⁶⁷ In December that same year, he was also made a Fellow of the Zoological Society of London and, at some point around this time, he joined a zoological dining group that centred around John Gould, William Jardine (editor of *The Naturalist's Library* 1844–5), and William Yarrell.⁶⁸ Subsequently, Mitchell's name grew 'in the international zoological community', becoming the illustrator to George Robert Gray's *The Genera of Birds*, which was published 1844-1849.⁶⁹ At this point living in London, he was well acquainted with fellow naturalists and had substantial backing on the ZSL council.⁷⁰ Thus, by the time Ogilby resigned, Mitchell was well placed for the job. He was a gentrified sportsman, inclined to scientific pursuits, and competent enough to keep a few wild animals alive. He possessed all the appropriate qualities that could appease the different factions of the ZSL, and, once appointed secretary, he quickly set to work on the Society.⁷¹

Mitchell's most immediate reforms were announced at the annual general meeting in April 1847, just two months after his appointment to the council. At the meeting, the newly elected secretary urged fellows to 'carry forward the work of which twenty years ha[d] but laid the foundation'.⁷² Not satisfied with the Society's supposed inactivity, the secretary called upon fellows to respectfully 'rally, and afford [the council] the means of carrying out to its fullest extent the

⁶⁷ 'D. W. Mitchell's Certificate of Approval, 2nd May 1843', Certificates of Recommendation 1843, LS, CR/56.

⁶⁸ T. Ito, *London Zoo and the Victorians*, p. 117. At some point around November 1843 David Mitchell moved to London. It is probable that he lived in the Bloomsbury area as his daughter, Lilian Mary Mitchell, was born at 28 Great Russell Street (near the British Museum) in 1847. See, 'David William Mitchell Aquarium Ambitions – References', *Parlour Aquariums*, http://www.parlouraquariums.org.uk/Pioneers/Mitchell/refMitch.html.

⁶⁹ Gray first published *A List of the Genera of Birds* in 1840, issuing a revised list in 1841 and 1842. The book was then expanded into three volumes, the first volume of which was illustrated by Mitchell in 1844. When Mitchell accepted the secretary post at the ZSL he was no longer able to devote his time to the work so obtained the assistance of a relatively unknown freelance German artist from Koblenz – Joseph Wolf. Wolf would become one of the greatest natural history illustrators of the nineteenth century and the preferred artist for explorers and naturalists alike. See, G. R. Gray, *The Genera of Birds: Comprising Their Generic Characters, A Notice of the Habits of Each Genus, and An Extensive List of Species* (London: Longman, 1849), p. xi; A. H. Palmer, *The Life of Joseph Wolf, Animal Painter* (London: Longmans, 1895), pp. 82-83.

⁷⁰ This included connections with John Edward Gray, George Gray's brother and Keeper of Zoology at the British Museum, as well as support from William Yarrell, who was a vice-president of the Zoological Society (1839-1851) and member of the secretary appointment committee.
⁷¹ T. Ito, London Zoo and the Victorians, p. 117.

⁷² RoC (1847), p. 3.

comprehensive scheme of usefulness which was originally contemplated by the founders'.⁷³ The speech was a pre-emptive sign of Mitchell's intentions, bolstering support for his radical proposition to abandon the exclusive admission system and adopt a policy of open access in the zoological gardens.⁷⁴ It was a bold new step which counter to the previous decade, flew in the face of exclusivity, rank, and elegance that successive councils had adopted.⁷⁵ The motion passed unanimously, and the resolution recommended the Society embrace a position of 'diffusing [the] taste for Natural Science more widely among the people of this country'.⁷⁶

Initially, the gardens of the Zoological Society were only opened to the public on Mondays and Tuesdays for 1*s*, and Monday to Friday during the two weeks between Easter and Whitsuntide.⁷⁷ However, a year later, the council dropped the admission price on Mondays to 6*d* and permanently increased the opening days to the rest of the week for 1*s* per person – except Sundays, which were reserved for fellows and their friends.⁷⁸ Children were admitted on all public days at a reduced price. The change was widely welcomed in the press, and, as the *Bentley's Miscellany* put it, Mitchell was attributed with 'the salvation of the society...the chief points to which he directed his energies [in] breaking up the old system of exclusiveness' and resuscitating a dormant public's interest in the gardens.⁷⁹ Impressed with the progress, the ZSL council was able to congratulate itself on the increased number of visitors 'consequent upon the late change in the terms of admission', rendering it possible to improve the main features in the gardens [Figures 4 & 5].⁸⁰ The council recommended the only true course of action was 'most earnestly, that whatever is done, shall be done immediately,

⁷³ RoC (1847), p. 3.

⁷⁴ Fellows required some compensation for this trade-off, and the committee of auditors suggested the council increase the privileges of the fellows. In the end, fellows were given 'a discount membership of £3 per annum, which gave subscribers free personal access to the zoo with one companion'. Fellows were also given the option to purchase transferable ivory tickets so subscribers could buy admission tickets in bulk. See, T. Ito, *London Zoo and the Victorians*, p. 117; GMM, 27 April 1847.

⁷⁵ T. Ito, London Zoo and the Victorians, p. 117.

⁷⁶ GMM, 27 April 1847.

⁷⁷ The Morning Herald, 3 April 1847, p. 1.

⁷⁸ ZSLA, CMM, 24 March 1847; ZSLA, CMM, 15 March 1848; ZSLA, CMM, 5 April 1848.

⁷⁹ Anon., 'A Glance at the Zoological Gardens in 1852', *Bentley's Miscellany: Vol. XXXI*

⁽London: R. Bentley, 1852), pp. 622-628 (p. 622).

⁸⁰ CMM, 17 May 1848

effectively and well'.⁸¹ Refining the gardens' aesthetic was high on Mitchell's agenda, and, having first discussed it at a special council meeting in July 1847, the council resolved that 'the attractions of the gardens establishment be increased by every practicable means with a view of exciting additional interest both in the fellows and the public'.⁸²

Extra flower beds were planted in front of the Pheasantry, and a new exit gate was installed at the western extremity of the middle gardens.⁸³ Likewise, a gravel walk parallel to the promenade avenue of Turkey oak trees was constructed in 1851, 'giving greater expanse and symmetry to the existing lawn on the western side of the avenue'.⁸⁴ The additions exemplified the importance of the gardens' aesthetic, and, aligning with these visual improvements, there were similar developments in 'the scale and diversity of the animal collection'.⁸⁵ In early 1847, for instance, the gardens housed just over 900 animals, but by mid-1849 there were over 1300.⁸⁶ The sudden increase in captive animals – mainly of birds and reptiles – further invigorated the council to redirect their energies towards the gardens, drawing attention to the urgent need for more enclosures.

The layout of the gardens in the early 1850s 'presented familiar features to those who had been fellows for at least a quarter of a century' but with a number of striking new additions.⁸⁷ In 1849, the world's first reptile house was built, a hippopotamus house and bath in 1849-1851, and in 1853 the first ever aquarium opened.⁸⁸ The reptile house and aquarium in particular were designed to make the gardens more attractive during the colder months, affording visitors a 'winter

⁸¹ ZSLA, CMM, 16 February 1848.

⁸² ZSLA, CMM, 14 July 1847.

⁸³ ZSLA, CMM, 1 November 1848; ZSLA, CMM, 5 February 1851.

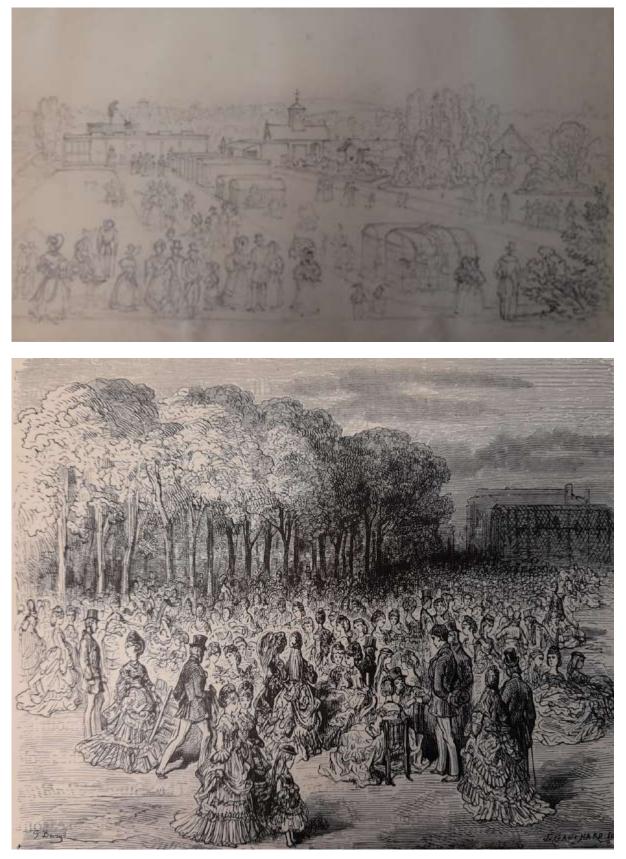
⁸⁴ ZSLA, CMM, 5 February 1851.

⁸⁵ T. Ito, London Zoo and the Victorians, p. 119.

⁸⁶ J. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', *HoS*, Vol. 53, No. 3 (2015), pp. 338-361 (p. 340).

⁸⁷ P. C. Mitchell, A Centenary History of the Zoological Society of London, p. 134.

⁸⁸ P. Onley, 'London', in *Great Zoos of the World: Their Origins and Significance*, ed. S. Zuckerman (London: G. Weidenfled & Nicolson, 1980), p. 42.



Figures 4 & 5. Contrasting images of the zoological gardens' during the spring/summer seasons. The former being a much quieter 'privileged preserve', the latter a 'great popular institution' – a formidable side-effect of the gardens' open policy and its star-studded collection. *Top*: 'Zoological Gardens, Regent's Park, July 29th 1837', LMA, SC/GL/PR/M/REG/P388090. *Bottom:* 'General View of a Fashionable Crowd', LMA, SC/PZ/SM/01/253.

exhibition...without exposure to either wet or cold'.⁸⁹ They were fitted with hot water pipes, which if not quite suitable for the animals were ideal sanctuaries for the visitors.⁹⁰ The new buildings were a step in the right direct, fulfilling Mitchell's goals of accommodating 'a far larger, and more interesting collection of animals that...ever existed in any other menagerie in the world'.⁹¹ Such endeavours, however, irretrievably changed the status of the gardens space, which, from the council's perspective, were optimistic attempts to refine the middle-class tastes for natural history and recreational amusement.

The most important part of this new public arrangement was a shift in status for certain animals from that of 'scientific exhibit to mass spectacle'.⁹² Mitchell's starring system, a policy which transformed animals from 'specimens' to 'stars', was an innovative approach that concentrated on specific animals that 'appear[ed] most likely to be attractive', either in terms of their aesthetic or commercial value.⁹³ Obaysch the hippopotamus, the first hippopotamus to be seen in Britain since the Roman era, was the first of these public attractions, but more 'stars' soon followed.⁹⁴ Timed to coincide with the upcoming season and well-advertised in the press, new acquisitions were given pride of place in the gardens and the guidebooks that described them. Furthermore, the Society's 'acquisition policies became more zealous and more formalized...with specific instructions issued to ensure the right animals' were sourced in advance.⁹⁵ The starring policy was a shrewd one which, as the *Quarterly Review* noted, through his system, Mitchell showed how 'alive he [wa]s to the fact that it is to the sixpenny and shilling visitors who flock to the gardens by tens of thousands on holidays

⁸⁹ J. Hall, 'Encountering Snakes in Early Victorian London', p. 341; 'The Iguana in the Gardens of the Zoological Society, Regent's Park', *ILN*, 24 November 1849, p. 341.

⁹⁰ For instance 'peculiarly unfavourable weather' had dampened the Society's performance in 1852, including 'extreme wet in June, extreme heat in July...[and] almost continuous rain during the autumn and winter'. See, 'Report on the Financial Statement for 1852', in ZSLA, CMM, 2 February 1853.

⁹¹ ZSLA, CMM, 14 July 1847.

⁹² R. W. Jones, "The Sight of Creatures Strange to Our Clime": London Zoo and the

Consumption of the Exotic', Journal of Victorian Culture, Vol. 2, No. 1 (1997), pp. 1-26 (p. 2).

⁹³ 'Band and Exhibition Committee Report 1848 - Report from 24th and 31st January 1848', ZSLA, GB 0814 GAAF.

⁹⁴ The reptile house was also regarded as a great novelty when it first opened. Although no specific animals were regarded as 'star' attractions, the building was described as a particularly attractive mass spectacle and 'source of great attraction'. See, *The Morning Post*, 7 July 1849, p. 5.

⁹⁵ R. W. Jones, 'The Sight of Creatures Strange to Our Clime', p. 14.

that he must look to support the wise and liberal expenditure he has lately adopted'.⁹⁶ The *Quarterly Review* was not alone in its appraisal, and other newspapers, most notably *The Illustrated London News*, assiduously announced the arrival of new exhibits that came to Regent's Park.⁹⁷

The council took full advantage of commercial ploys to publicise their new arrivals, including various advertisements around the capital and other social mediums in the gardens themselves.98 The Society's advertising budget increased substantially from £139 in 1848 to over £700 in 1851, and arrangements were later made with railway companies to make it easier for passengers to access the gardens.⁹⁹ Similarly, in December 1852, the council authorised Mitchell to accept W. H. Smith's proposal to exhibit two advertising boards 'at each of 250 railway stations for six months, ending June 1st 1853, for forty pounds'.¹⁰⁰ Advertisements became so prolific that the Society's advert expenditure was even split between omnibus and newspaper payments.¹⁰¹ The effects of these marketing strategies and other forms of public promotion were key to the gardens' new approach, with the menagerie guidebooks becoming an important source of revenue. Mitchell was responsible for updating the guides, and immediately prepared a new edition at own his expense; this included printing and illustrating new editions, which were sold at the entrance gates for 6d each.¹⁰² The guides were expected to make a profit from the start, and after a map of the gardens were added, sales increased dramatically from £1 in 1847 to £213 in 1852.¹⁰³ The guidebooks were a significant source of exotic spectacle

⁹⁶ *The Quarterly Review: December 1855–March 1856*, Vol. 98, Iss. 195-196 (London: J. Murray, 1856), art. vii, pp. 220-248 (p. 223).

⁹⁷ R. W. Jones, 'The Sight of Creatures Strange to Our Clime', p. 14.

⁹⁸ Visual and literary accounts of prospective animals were promoted with equal enthusiasm. See, R. W. Jones, 'The Sight of Creatures Strange to Our Clime', p. 14.

⁹⁹ ZSLA, CMM, 16 October 1850; RoC (1848-59). Also see, D. van Reybrouck, 'Archaeology and Urbanism: Railway Stations and Zoological Gardens in 19th-Century Cityscape', *Public Archaeology*, Vol. 4, No. 4 (2005), pp. 225-241 (pp. 230-236).

¹⁰⁰ ZSLA, CMM, 15 December 1852.

¹⁰¹ RoC (1856), p. 25.

¹⁰² 'Report of the Special Committee Appointed by the Council 1848', ZSLA, GB 0814 GAAE. Interestingly, this was the same price as an admissions ticket on Mondays. It suggests that the potential buyers of these guidebooks had a certain level of income and literacy. For more on the cultural origins of popular literacy and social mobility see, T. W. Laqueur, 'Literacy and Social Mobility in the Industrial Revolution in England', *P&P*, No. 64, (Aug., 1974), pp. 96-107.

¹⁰³ ZSLA, CMM, 19 May 1847; 'Report of the Special Committee Appointed by the Council 1848', ZSLA, GB 0814 GAAE.

consumption, stimulating a projection of commercially induced novelty that presented the animals as strange capitulations of a profitable exoticism.¹⁰⁴

A consequence of opening the gardens to the public, however, was the pragmatic shift in how the gardens were appreciated and utilised. Different classes could now intermingle with one another and, in terms of the cultural etiquette, it became evermore pressing to monitor the visitors' behaviour [figure 6].¹⁰⁵ In June 1853, the council agreed to build a fence on the bankside in the middle garden to prevent visitors from destroying the verdure.¹⁰⁶ The following month, drinking water was issued to visitors after the council received complaints of improper drinking facilities.¹⁰⁷ Unable to gain a license for selling wine and spirits until 1913, drinking alcohol in the gardens was another issue that irritated the council members. Many visitors simply brought their own drinks with them,



Figure 6. 'Beast at the Zoo', *Punch or the London Charivari*, Vol. 50, 16 June 1866, p. 252.

¹⁰⁴ R. W. Jones, 'The Sight of Creatures Strange to Our Clime', pp. 10, 19; H. Ritvo, *The Animal Estate*, p. 217-220.

¹⁰⁵ For a more modern analysis of visitor behaviours see, G. Davey, 'Visitor Behaviour in Zoos: A Review', *Anthrozoös*, Vol. 19, No. 2 (2006), pp. 143-157.

¹⁰⁶ ZSLA, CMM, 1 June 1853.

¹⁰⁷ ZSLA, CMM, 6 July 1853.

'while one or two found it [easier] to arrive already drunk'.¹⁰⁸ On 28th September 1852, two well-dressed men were charged with 'drunkenness and disorderly conduct... and with wantonly injuring a badger by administering to it some gin'.¹⁰⁹ Alcohol in the gardens remained a contentious issue for much of the nineteenth century. The beasts at the zoo were not just confined to their cages; visitors and sometimes keepers tormented, poked, and teased the animals with umbrellas and sharp objects on numerous occasions.¹¹⁰

Not all the Society's resolutions were deterrents though, and a number of more constructive endorsements were also adopted. In 1849, the council received thanks from the Government School of Design for 'allowing their students to enter the gardens for artistic purposes', whilst in 1851, reduced admissions for those who acted as 'great benefactors to the Society' was proposed.¹¹¹ Likewise, the Society's music programme, which was already known for its 'elegant ambience' in the summer seasons, experienced some improvements.¹¹² Once Mitchell was elected, military bands, like those of the Coldstream Guards and the 1st Life Guards, were regularly commissioned to play in the gardens, performing every Saturday (except for promenade weekends) at four o'clock from May until August.¹¹³ Visitors could be serenaded to the 'well-known airs of Meyerbeer, Weber, Rossini, and Verdi, stealing over the senses'

¹⁰⁸ W. Blunt, *Ark in the Park*, p. 89.

¹⁰⁹ 'William Nixey, 19, Windsor-street, City Road, deposed that on the previous afternoon, about 4 o'clock, he was in the [zoological] gardens, and there saw the prisoners [John Gosney and George Tayton], one of whom gave some gin from a bottle to a wolf, after which he gave the animal a biscuit, and then threw some gin into its mouth. He then gave some of the like spirit to an Esquimaux dog, by throwing it from a glass; and in addition to these freaks he offered a piece of biscuit to a badger. Upon the animal opening its mouth to seize the morsel he introduced therein the neck of the bottle, from which no doubt a quantity of gin had passed down the animal's throat; it rolled and floundered about in its cage, and he (Gosney) then struck a blow at it between the wires...the prisoners were both drunk [...]'. See, *The Times*, 28 September 1852. Quoted in W. Blunt, *Ark in the Park*, p. 89.

¹¹⁰ T. Ito, *London Zoo and the Victorians*, p. 82 fn. 4; J. Edwards, *London Zoo: From Old Photographs 1852-1914*, 2nd edition (London: Butler & Tanner, 2012), p. 240.

¹¹¹ ZSLA, CMM, 31 July 1851; ZSLA, CMM 18 April 1849. In August 1857, artist tickets for three months' entry were also issued – possibly at the behest of Edmond Calvert, the painter and miniature wood engraver, who served on the ZSL council. See, ZSLA, CMM, 5 August 1857. ¹¹² T. Ito, *London Zoo and the Victorians*, p. 111.

¹¹³ A bandstand was later erected on the north side of the carnivora house, and the band of the Caledonian Children's Asylum was also asked to play, receiving free admission when required. See, ZSLA, CMM, 5 July 1848; ZSLA, CMM, 16 October 1850. For more information on promenades see fn. 54.

and leaving delightful reminisces in the minds of listeners.¹¹⁴ The desired effect of the musical performances were an integral part of the Mitchell's new vision, emphasising a wholesale need for recreational amusement amidst educational parameters. The implications of a more accessible gardens were clear. The Society's new policies mirrored those of similar institutions that opened to the public in the mid-nineteenth century, promoting ideas of 'morality and social order by providing suitable pursuits' for the working classes.¹¹⁵ As the naturalist Edward Forbes put it regarding the British Museum, 'the labourer who spends his holiday in a walk through the British Museum, cannot fail to come away with a strong and reverential sense of the extent of knowledge possessed by his fellow-men'.¹¹⁶ The same sentiment could easily have been applied to the gardens of the Zoological Society of London. These policies, however, were a decisive shift from the ZSL's original objective, to promote a scientific collection of animals for the purpose of research and utility, which soon started to create problems of their own.

The transition from private preserve to public institution did not happen overnight, but it soon became difficult to differentiate the Zoological Society's new approaches from other forms of commercial entertainment. In legal terms, the new policies seriously undermined the ZSL's position as a voluntary organisation for the advancement of science.¹¹⁷ Questions began to arise as to whether the ZSL gardens were a place of scientific research or for the enjoyment of the masses, a position that risked undermining the Society's financial exemptions as

¹¹⁴ 'Band and Exhibition Committee Report 1848 - Report from 24th and 31st January 1848', ZSLA, GB 0814 GAAF; 'Zoological Gardens', *The Morning Post*, 14 June 1847, p. 6; Report of the Special Committee Appointed by the Council 1848 – Report to Invigorate the Institution in all its Branches 2nd February 1848', ZSLA, GB 0814 GAAE; 'Morning Post, 14 May 1851', Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA. Performances were so popular that even the *Literary Gazette* reported: 'another brilliant reunion of the fellows of this Society and their friends took place at the gardens...when the fineness of the weather drew together a more than usually large and fashionable party to enjoy, al fresco, the performance of an admirable selection of music'. See, *Literary Gazette*, 3 July 1847, p. 495.

¹¹⁵ S. Forgan, 'The Architecture of Display: Museums, Universities and Objects in Nineteenth-Century Britain', *HoS*, Vol. 32, No. 2 (1994), pp. 139-162 (p. 145). As Harriet Ritvo has argued, 'serious interest in the Regent's Park Zoo amongst the vulgar was both an agent and an index of their improvement, and hence another symbol of English progress and enlightenment'. See, H. Ritvo, *The Animal Estate*, pp. 214-215. Also see, *News of the World*, 22 May 1853; *The Quarterly Review: December 1855–March 1856*, Vol. 98, Iss. 195-196 (London: J. Murray, 1856), art. vii, pp. 220-248 (p. 223).

¹¹⁶ E. Forbes, On the Educational Uses of Museums (Being the Introductory Lecture of the Session 1853-1854) (London: Longmans, 1853), p. 9.

¹¹⁷ T. Ito, London Zoo and the Victorians, p. 129.

an institution disseminating 'scientific, moral, [or] religious instruction'.¹¹⁸ Under the Scientific and Literary Institutions Act of 1843, the Zoological Society had been exempt from these parochial taxes, but in the late 1840s a series of legal challenges were issued against London's learned societies. Courts began to 'reassess not only their official documents but also the ways in which [learned societies] transacted their business'.¹¹⁹ For the Zoological Society, which charged visitors solely for entering the gardens, it called into question the acceptability of the exemption rates.

The gueries were explicitly debated in the Queen's Bench vs The Zoological Society court case in 1854, which was one of three appeals in the parish of St Marylebone alone. The interpretation of 'voluntary contributions' and 'voluntary associations' were crucial to the Zoological Society's case, setting out to define the range of benefits subscribers could obtain in return for their contributions to the Society. Unlike the Linnean Society, which was judged to be within the meaning of the Act, the Zoological Society differed because 'it returned a completely different kind of benefit to its subscribers'.¹²⁰ The opposition counsel contended that the new policies were 'ancillary to the main object of the Society, which was to promote the science of natural history'.¹²¹ They did concede the gardens were a place of science and that in 'promoting that object, it was true that every effort had been used to make the study of the science interesting', but this was not enough to exempt the ZSL.¹²² Although established for the purposes of science, in the court's opinion, the gardens were not exclusively used for the purpose of zoological research. The verdict was anticipated and the parochial rates were upheld. Ultimately, it was the price the Zoological Society paid for Mitchell's deal with the newfound audiences; he had accepted a devil's bargain in order to save the Society from financial ruin.¹²³

¹¹⁸ 'Scientific and Literary Institutions', *House of Commons Debate*, 25 May 1842, in *Hansard: Parliamentary Debates* 1st-4th Series, 1803-1908 (London: 1803-1908), 3rd Ser., Vol. 69, cc920-921.

¹¹⁹ T. Ito, *London Zoo and the Victorians*, p. 131.

¹²⁰ Ibid., pp. 131-132.

¹²¹ The opposition counsel claimed the additional escapades related to band music, refreshments, and aesthetically pleasing flower-gardens had 'destroyed the purely scientific character of the Society'. See, *Judgement of The Queen's Bench vs. Zoological Society of London*, ZSLA, GB 0814 GABA.

 ¹²² Judgement of The Queen's Bench vs. Zoological Society of London, ZSLA, GB 0814 GABA.
 ¹²³ N. Murray, 'Lives of the Zoo', p. 46.

The court's judgement was, in many ways, an inconvenience for the Zoological Society, but it was clear that the Society had benefited from its open access policy. In 1854, the same year as the court's verdict, the ZSL council reported that the number of new fellows amounted to 115 (55 above the average of the last fifteen years), whilst the Society's income had doubled since 1849, being nearly £10,000 beyond that of 1847.124 Visitors to the gardens had quadrupled since 1847 and the Society's expenditure had fallen within the receipts by upward of £1,500. In less than eight years, the Zoological Society's fortunes had been turned around, and it was largely thanks to David Mitchell. The gardens were not the same place as they were in 1847. The airs of exclusivity were slowly dissipating, and through the haze of its new found commerciality, the Zoological Society of London was emerging as something recognisably new and modern. The hybrid nature of the gardens' space reflected the Zoological Society's own hybrid goals, displaying animals as scientific spectacles in an informative yet entertaining way. In its broadest sense, the gardens had been transformed from a 'privileged preserve' into a 'great popular institution', setting the tone of the Society for the rest of the century.¹²⁵

The same could not be said about other branches of the Zoological Society. One branch in particular was the museum department, which had experienced a severe reduction in terms of its perceived importance. The final section of the chapter will therefore investigate the demise of the ZSL's zoological museum – relative to the living collection – and its eventual disbandment in 1855. There was, however, an attempt to revive the appeals of a taxidermied collection in 1851-52, when John Gould displayed a collection of stuffed hummingbirds in the gardens. The exhibit was incredibly popular, exemplifying the Society's last-ditch attempt to amalgamate its new policies of rational recreation with taxidermied specimens. The hummingbird display was only temporary however, and three years later the dissolution of the museum marked the end of the ZSL's in-house efforts to promote deceased specimens. It reflected the ZSL's broader shift from dead to living and specimen to star displays, to which the chapter will now turn.

¹²⁴ ZSLA, CMM, 4 January 1854.

¹²⁵ P. C. Mitchell, A Centenary History of the Zoological Society of London, p. 86.

Wanted dead or alive: A shift in perspective from museum to menagerie

Like the zoological gardens, the establishment of a zoological museum was another major branch the founding members of the Zoological Society of London discussed in 1826. Centred on classifying animals and maintaining a 'standard' specimen of each taxon, the ZSL museum was intended to be one of three specialist areas that formed the core of the institution's new scientific identity. In its most idealistic form, the museum was to be administered in parallel to the library and living collection, covering the collective aspects of the Society's scientific character. The three branches were designed to collate the range of zoological outlooks – observational, literary, and experimental – ensuring the Zoological Society paid equal attention to the scientific and utilitarian obligations Raffles and Davy had originally advocated. The museum was therefore the first zoological collection the Zoological Society established, albeit in a taxidermied form.

At first glance, the prospect of creating a zoological museum may have seemed counterproductive, as London already had an extensive preserved collection at the British Museum in Bloomsbury. However, as Peter Greenhouse has shown, in the early quarter of the nineteenth century the curatorial standards in the Natural History section at Bloomsbury were unbelievably poor, lacking suitable scientific staff and appropriate accommodation.¹²⁶ From the start, the museum of the Zoological Society was viewed as a far better alternative, providing superior services and curation both in terms of identification and specimen care. Indeed, after the ZSL museum was established in Bruton Street, in central London, the collection expanded swiftly, receiving large donations from the Society's founding members. By 1828, the same year the zoological gardens opened in Regent's Park, the museum already had '600 mammals, 4,000 birds, 1,000 reptiles and fish, 1,000 testaciea and crustacea, and 30,000 insects', vastly outnumbering the animals in the living collection.¹²⁷ For specialist zoologists and

¹²⁶ P. H. Greenhouse, 'The Zoological Society and Ichthyology 1826-1930', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40)*, ed. By S. Zuckerman (London: Academic Press, 1976), pp. 85-104 (p. 86)

¹²⁷ By comparison, there were around six hundred animals in the living collection in 1826. See, Anon., 'The Rise and Progress of the Zoological Society', *Nature*, Vol. 74 (1906), pp. 129-130 (p. 129); T. Ito, *London Zoo and the Victorians*, p. 37. Even members at the Zoological Club praised

naturalists not yet associated with the Zoological Society, the museum was an integral part of the ZSL's early character. Many believed it was a serious platform for conducting research within the institution.

Like the collection at the British Museum, however, the ZSL's museum soon encountered problems regarding space and accommodation. Apart from housing the Society's preserved collection, the ZSL offices included a meeting room and library, which like the museum had also expanded at a steady rate.¹²⁸ The limited space was part of the reason Charles Darwin decided not to donate his specimens from the *Beagle* expedition, arguing 'the Zoological museum is nearly full, and upwards of one thousand specimens remain unmounted... I dare say the British Museum would receive them, but I cannot feel, from all I hear, any great respect even for the present state of that establishment'.¹²⁹ Wary of the inadequate space, the council acquired a new office in Leicester Square in 1836, but later gave this house up as well.¹³⁰ The museum was then temporarily placed in a warehouse in 1841 – after a considerable inconvenience was caused by the pulling down of two houses adjoining the museum room in Leicester Square and the search for new premises began again. Following the debacle, the council ordered the museum be moved to the gardens in Regent's Park, placing the collection in the then vacant old carnivora house. The bulk of the collection was transferred in 1843, whilst the more valuable objects were stored in the newly

the museum's abundance in the years the two bodies overlapped. James Bicheno even stated: 'The Zoological Society, recently instituted in London, contemplates a more practical cultivation of science than any other which exists. They not only mediate the establishment of a museum, which has already been enriched by the private collection of Mr Vigors and the Sumatran collection of the late Sir Stanford Raffles; but every exertion will also be made to obtain an osteological collection, and in the end to establish a Menagerie, Aviary and Piscina. Every lover of Natural History will rejoice to hear that their Museum will be open to the public in the ensuing spring', quoted in H. Scherren, *The Zoological Society of London*, p. 24.

¹²⁸ R. Fish, 'The Library and Scientific Publications of the Zoological Society of London: Part I', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40)*, ed. By S. Zuckerman (London: Academic Press, 1976), pp. 233-252 (p. 240).

¹²⁹ *The Life and Letters of Charles Darwin, including an Autobiographical Chapter: Vol 1*, ed. F. Darwin (London: J. Murray, 1887), p. 273.

¹³⁰ No. 28 Leicester Square was formerly occupied by John Hunter (the distinguished Scottish surgeon) whose private collection of specimens and scientific instruments had been kept in that house since 1799. Once the ZSL acquired the property, Hunter's collection was moved to the Royal College of Surgeons, where it became the Hunterian Museum. The house at Leicester Square remained in the hands of the ZSL until 1841. See, P. L. Sclater, *A Record of Progress*, pp. 160, 164-165; S. D. J. Chaplin, 'John Hunter and the 'Museum Oeconomy', 1750-1800' (Unpublished PhD Thesis: King's College London, 2009), p. 183.

acquired offices in Hanover Square.¹³¹ Thus, even before David Mitchell was elected a fellow of the Zoological Society, the Society's museum had moved several times; it was an early indication of its potential vulnerability.

The Tory coterie on the council in the 1830s was largely responsible for the museum's diminishing status, and, in sharp contrast to the upturns in the garden's utility, the council began to limit the museum's resources. A number of fellows in the pro-science faction were somewhat angered by this move, and blamed successive councils for sacrificing the museum at the gardens' expense. Moreover, once the financial troubles during Ogibly's secretaryship started to bite, the council further tightened the screw on the museum. The preserved collection was much easier to target than the gardens, as dead specimens could be sold to other institutions if necessary; rehoming live animals was a much harder task.¹³² The gardens, on the other hand, were still the main source of the Society's income, and despite the depressed revenue, the living collection continued to attract more visitors than the museum. Regardless of whether visitors viewed the gardens as a place of scientific study or recreational enjoyment, the living collection harboured a certain attraction that the museum supposedly did not [table 1]. Hence, once the preserved collection was moved to the zoological gardens (at this point still restricted to fellows and friends of the Society), its fate was more or less sealed. Fellows could now visit free of charge, and the museum had to compete with the other exhibits in the gardens, both in terms of substance and value.¹³³ By 1847, the museum's prospects were already hanging in the balance.

¹³¹ See, RoC (1843-44).

¹³² As a simple point of logistics, there were more well-established museums compared to zoological gardens in the early half of the nineteenth century. For an overview of early zoological gardens however, see, H. Cowie, *Exhibiting Animals in Nineteenth Century Britain*, pp. 31-51.

¹³³ RoC (1844), p. 6.

Year	No. of visitors
1830	14323
1832	7134
1834	4939
1836	3660
1838	4073
1840	3909

Table 1. Admission to the ZSL Museum, 1830-1840

The idea of reinvigorating the museum had been politely rebuffed by the time David Mitchell was appointed secretary, but in laying the groundwork for his future plans, Mitchell believed there were three essential ways of securing the Society's future reputation.¹³⁴ This included consolidating the library and scientific departments in central London, maximising the zoo's function as a stable source of finance, and boosting an egalitarian research forum.¹³⁵ With the preserved collection already in the gardens, the idea of moving it back to central London was completely out of the question. Instead, the council agreed that 'any expenditure upon the collections in the museum beyond what was absolutely necessary' should only be used for specimen conservation.¹³⁶ The council declared that the museum should be preserved in its current capacity or sold off in its entirety. As a result, the museum expenditure was slashed and the number of staff reduced from four to one, saving over £200.¹³⁷ Only rare animals from the menagerie were ordered to be taxidermied. Three years later, however, on 3rd July 1850, the council decided to transfer the majority of the Society's museum

¹³⁴ In 1846 for instance, Lovell Reeve argued the Society's membership bands should be completely rebranded. Reeve proposed a new scientific fellowship be introduced, offering free access to the museum, the library and scientific events, but not to the gardens. As Takashi Ito has argued, it is hard to gauge the impact of Reeve's diatribe, but it reopened conversations about the dual nature of the society's purpose and how provisions between public recreation and scientific transactions should be balanced. See, L. Reeves, *Letter to the Right Honourable the Earl of Derby, K.G., D.C.L., On the Management, Character, and Progress of the Zoological Society of London* (London: 1846), p. 17; T. Ito, *London Zoo and the Victorians*, p. 116.

¹³⁵ T. Ito, *London Zoo and the Victorians*, p. 116.

¹³⁶ RoC (1848), p. 10.

¹³⁷ ZSLA, CMM, 21 July 1847. This was a further reduction from 1837, when the museum department had eight members of staff. See, 'Reports of the Committee of Receipt and Expenditure 1843-50', ZSLA, GB 0814 GAAW.

to the government, proposing the majority of the collection be transferred to the British Museum.¹³⁸ It was the beginning of the end for the zoological museum.

The change in approach was quite abrupt given the council's previous resolution, but the decision was less to do with the Zoological Society's internal affairs than with the emerging situation at the British Museum, which had greatly improved since the 1830s. By 1850, many fellows at the Zoological Society were able to record their satisfaction at the British Museum's progress, arguing it was 'so striking a contrast with their condition at the time when the Zoological Society was founded, render[ing] the maintenance of [the Zoological] Museum as a separate collection no longer an object of importance it formerly possessed'.¹³⁹ John Edward Gray was largely responsible for this change, who, having assumed the post of Keeper of Zoology after John George Children retired in 1840, had greatly improved the zoology department at the British Museum [figure 7]. Gray was a long-standing fellow of the ZSL – he served on the council between 1849 and 1855 – and his position at both institutions made it easier for the Zoological Society and British Museum to broker a deal. Subsequently, this encouraged other well-established council members to also start bidding for specimens, with fellows like Richard Owen offering sanctuary for certain parts of the collection in the Hunterian Museum.¹⁴⁰ By late 1850, the process for selling off the best parts of the Society's museum was well underway.

In the midst of these dealings however, John Gould – the ornithologist and close friend to David Mitchell – had other ideas. In early 1851, Gould proposed the ZSL embark on a highly visual and awe-inspiring arrangement of preserved animals in the gardens. For Gould, the disbandment of the museum was not so much a misfortune as an opportunity for museological adaptation, advocating the Zoological Society modify some of its new policies of rational recreation. Ever commercially-minded, Gould submitted that a taxidermied collection could be just

¹³⁸ ZSLA, CMM, 3 July 1850.

¹³⁹ P. C. Mitchell, *A Centenary History of the Zoological Society of London*, pp. 102-103; P. H. Greenhouse, 'The Zoological Society and Ichthyology 1826-1930', p. 87.

¹⁴⁰ This included personal connections via the late Bishop of Norwich (deceased 1849), who was the original patron to the Ipswich Museum, and the late 13th Earl of Derby (deceased 1851), who had posthumous links with the Derby Museum in Liverpool.



Figure 7. 'Easter Monday – The Great Zoological Gallery, The British Museum', *Illustrated London News*, 29 March 1845, p. 201.

as exciting as a living animal, if displayed in the right way. In February 1851, Gould therefore offered his personal collection of preserved animals to the Society, on the condition that it be displayed in the gardens during the peak season from May until November.¹⁴¹ The proposition was candidly timed, and, taking a leaf out of Mitchell's book, he announced the idea two months before the Great Exhibition was due to start. The idea was simple, and instead of displaying a collection of preserved animals in a catalogic fashion, like the museum, Gould intended to create a naturalistic diorama of some of the most colourful and diverse species of the natural world – hummingbirds.

Gould had already worked for the ZSL during the early 1830s and had maintained his interest in and connections with the Society ever since.¹⁴² The prospect of housing Gould's private collection of hummingbird collection was

¹⁴¹ ZSLA, CMM, 5 February 1851; John Gould to the Zoological Council, 5 February 1851, ZSLA, GB 0814 BADG, John Gould Papers.

¹⁴² He became preserver of skins at the museum of the Zoological Society in 1827 and later served as superintendent to the ornithological department (1833-1836). See, M. Lambourne, 'John Gould and Curtis's Botanical Magazine', *The Kew Magazine*, Vol. 11, No. 4 (1994), pp. 186-197 (p. 189); D. A. Lowther, 'The Reverent Eye', pp. 233- 237.

certainly very appealing. As a fellow ornithologist, Mitchell was keenly aware of Gould's interests in Trochilidae and his popularity as an ornithological writer and illustrator.¹⁴³ Gould had published a relentless stream of ornithological books in the 1840s, and had spent the best part of a decade diligently collecting hummingbird specimens for his work, *Monograph of the Trochilidae*, which was first published in 1849.¹⁴⁴ Housing his private collection was good for all parties, reconnecting Gould's fame and reputation with the ZSL, along with '2,000 specimens of 300 species with in many cases nests and eggs'.¹⁴⁵ From the council's perspective, the collection had the potential to attract a considerable number of the sightseers to the gardens; Gould's proposal was accepted without discussion and the council agreed to build a pavilion for £600.¹⁴⁶

The display opened on 15th May 1851 and was an instant success. Fellows and friends were admitted free entrance, whilst the general public paid 6*d* on Mondays and 1*s* on the remaining weekdays, which was paid directly to Gould. The pavilion was erected just south of the carnivora dens, but it did not take long for visitors to start queuing along the main lawn. The room was devoted to objects 'not more novel than interesting', with the *Illustrated London News* believing it would become the most attractive display in the gardens' establishment.¹⁴⁷ As the *Morning Advertiser* stated:

Looking upon Mr Gould's hundreds of hummingbirds...we are almost made to believe that the winged wonders have fed upon emerald, sapphire, diamond, topaz; all the precious jewels of the earth. These birds are the most marvellous development of natural brilliance and natural beauty; the most wonderful embodiment of the things of fairy-land! We would as soon attempt to give the colour with Japan ink, as hope to give the faintest notion of the feast of beauty that awaits the eye – yes, and the hearts of the beholders of these wonderful creatures, so magnificent – so graceful – so strange, and yet so harmonious in their thousand gradations of form and colour.¹⁴⁸

¹⁴³ RoC (1851), pp. 12-13.

 ¹⁴⁴ For an annotated bibliography of Gould's publications see, R. B. Sharpe, *An Analytical Index to the Works of the Late John Gould* (London: H. Sotheran, 1893), pp. xxvii, xxxiii-xxxix.
 ¹⁴⁵ T. Ito, *London Zoo and the Victorians*, p. 132.

¹⁴⁶ It was agreed that all receipts were to be paid directly to Gould, who, as the owner and designer of the display cases, was regarded as the custodian of the collection. Gould also agreed to foot the bill if the venture was unsuccessful. See, ZSLA, CMM, 5 February 1851; Anon., 'Monthly General Meeting of the Zoological Society – February 1851', *The Zoologist: A Popular Miscellany of Natural History* – *Vol. 9*, ed. E. Newman, (London: J. Van Voorst, 1851), pp. 3067-3068.
¹⁴⁷ 'Mr Gould's Collection of Humming-Birds at the Zoological Society's Gardens, Regent's Park', *ILN*, 31 May 1851, p. 480.

¹⁴⁸ 'Mr Gould's Humming Birds', *The Morning Advertiser*, 9 June 1851, p. 6.

The dazzling array of birds featured heavily in the summer newspapers and journals, describing the collection as the jewel room of the Zoological Society.¹⁴⁹ Queen Victoria – with her own fine jewellery – even visited on 10th June 1851, writing in her diary 'it was the most beautiful and complete collection ever seen, and it is impossible to imagine anything so lovely as these little humming birds [with] their variety'.¹⁵⁰ The Society had a variety of living 'stars', including the aforementioned Obaysch the hippopotamus and a mother elephant and her calf that was 'so grave in its infancy', but Mr Gould's preserved hummingbird collection was the marvel of all marvels.¹⁵¹

The collection certainly showcased Gould's skills as a curator and taxidermist, presenting the birds in twenty-four revolving cabinets, which were also his own handiwork.¹⁵² Positioned on cabriole stands, the ornate hexagonal glass cabinets were designed to maximise the viewers gaze, offering 'a charming simplicity of detail'.¹⁵³ The cabinets were arranged in groups of three and were placed behind metal railings, with each segment covered by a canopy.¹⁵⁴ Inside the cabinets the birds were mounted on little branches with dried ferns and flowers surrounding them, using fine wire to display the birds in a variety of poses. The lighting was particularly important, and each cabinet was specially lit to show off the iridescence of the hummingbird's feathers; they retained their colours because of the particular anatomy of their feather barbs.¹⁵⁵ According to the *Atlas*, 'the light thus falls obliquely, and in the manner best calculated to bring out the bright and varied plumage of the birds'.¹⁵⁶ The colours were incredibly vibrant,

¹⁵³ R. B. Sharpe, *An Analytical Index to the Works of the Late John Gould*, p. xx.
¹⁵⁴ It is possible Gould was trying to imitate the Great Exhibition displays. See, J. Nash, 'The Great Exhibition: Sheffield Hardware', Royal Collection Trust, RCIN 919936. Also see, *Dickinson's Comprehensive Pictures of the Great Exhibition of 1851* (London: Dickinson Bros., 1854); J. A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (Yale: Yale University Press, 1999), pp. 54-88, 128-158.

¹⁴⁹ T. Ito, 'Debating Urban Entertainment, Public Science, and Imperial Glory: A Case Study of the London Zoo, c.1826-60' (Unpublished PhD Thesis: Royal Holloway University of London, 2004), p. 175.

¹⁵⁰ Queen Victoria's Journal Collection, The Royal Library, *Queen Victoria's Journal* (1851), Entry 10th June 1851.

¹⁵¹ 'Mr Gould's Humming Birds', *The Morning Advertiser*, 9 June 1851, p. 6.

¹⁵² R. B. Sharpe, *An Analytical Index to the Works of the Late John Gould*, p. xx. The walls were also covered with images of hummingbirds from his *Monograph of Trochilidae*, complimenting the room with another visual form of display.

¹⁵⁵ R. Russell, *The Business of Nature: John Gould and Australia* (Canberra: The National Library of Australia, 2011), p. 62.

¹⁵⁶ 'Zoological Gardens' *Atlas,* 17th May 1851, p. 316.

and, depending on the viewer's position, they produced separate and collective effects of light that bounced around the room and shone on the visitors' clothing.¹⁵⁷ As the ornithologist William Martin noted, 'how crowded with interested visitors is the Zoological galleries of the British Museum! How crowded is the gardens of the Zoological Society of London, and there, how attractive is Mr Gould's magnificent Cabinet of Humming-Birds!...this collection is unrivalled in Europe'.¹⁵⁸ It was a hugely successful display of museological ingenuity, and by the end of the season, the council agreed to extend the exhibit for another twelve months.¹⁵⁹

The collection was moved to the middle gardens in December 1851 and Gould agreed to place his collection at the disposal of the Society for the subsequent year. In return, the council covered all expenses of maintenance, exhibition, insurance, and an attendant to the collection, which were defrayed for £3,000.¹⁶⁰ Like the pavilion, the new building was designed to accentuate the hummingbirds' features, using skylights to illuminate the birds colourful feathers [figure 8]. The entrance was covered with an ornamental cobbled floor and the whole building was adjusted to exploit the greatest amount of sunlight.¹⁶¹ The collection reopened in May 1852, as part of the general admission ticket, and it remained in the gardens until November when it was returned to Gould. Taking note of the collection's success in the annual report, the council recorded their gratitude to Gould, stating visitors still inquired over the collection, indicating 'the extended interest which the [hummingbirds] had created among all classes'.¹⁶² It

¹⁵⁷ R. B. Sharpe, *An Analytical Index to the Works of the Late John Gould*, p. xx. Also see, A. Datta, 'Gould's Hummingbird's at the Zoological Society 1851', Artefact of the Month – 16 May 2021, Zoological Society of London Library and Archive Blogs, https://www.zsl.org/news-and-events/feature/hummingbirds-zoological-gardens-1851.

¹⁵⁸ William Martin had previously been the ZSL's museum superintendent at Bruton Street. See, W. C. L. Martin, *A General History of the Humming Birds, or Trochilidae – with especial reference to the Collection of J. Gould now Exhibiting in the Gardens of the Zoological Society of London* (London: H. G. Bohn, 1852), pp. v, 1.

¹⁵⁹ Anon., 'Proceedings of the Zoological Society – December 1851', *The Zoologist: A Popular Miscellany of Natural History – Vol. 10*, ed. E. Newman, (London: J. Van Voorst, 1852), pp. 3335-3336 (p. 3336).

¹⁶⁰ ZSLA, CMM, 3 December 1851.

¹⁶¹ RoC (1852), pp. 14-15; ZSLA, CMM, 17 December 1851. For an image of the outside of the hummingbird house shortly after it was converted into the parrot house see, *The Zoological Gardens: A Description of the Gardens and Menageries of the Royal Zoological Society – A Handbook Guide for Visitors* (London: H. G. Clarke, 1855), p. 55.
¹⁶² RoC (1853), p. 11.

was only temporary but it encompassed all the star qualities the Zoological Society aspired to display.



Figure 8. 'Interior of the Humming Bird House, in the Gardens of the Zoological Society', *Illustrated London News*, 12 June 1852, p. 457.

There was a sharp contrast between the reception of the hummingbird exhibit and the state of the zoological museum in the two years the collections coincided in the gardens space. Using Gould's ledger as a marker of the collection's value, in the first year alone it earned him around £1,600 and admitted over 75,000 visitors to the collection.¹⁶³ This was over 8,000 more visitors than the ZSL museum ever admitted between 1830 and 1840.¹⁶⁴ In just twelve months the hummingbird collection had surpassed what the museum had achieved in over ten years. Clearly, there was something about the hummingbird collection that succeeded where the museum failed.¹⁶⁵ Part of this stemmed from the layout

¹⁶³ N. Murray, 'Lives of the Zoo', p. 133.

¹⁶⁴ There are no exact figures for attendances to the hummingbird collection in 1852 as it was part of the general admission. However, if attendance is calculated using the ratio: the total annual number of visitors to the gardens versus those who visited the hummingbird collection (roughly 26:3) in 1851, another 35,000 potential visitors could have seen the collection in 1852. By comparison, approximately 67,282 visited the museum between 1830 and 1840. See, RoC (1831-1841).

¹⁶⁵ There are some caveats to this comparison. The gardens were not open to the public between 1830 and 1840, nor was the museum located in the gardens at this point. The museum was still in central London. However, it is equally not appropriate to pin all of the Hummingbird collection's

of the collection, which was a highly organised exhibit. By comparison, the museum was described as having a 'rather confused air of a store [room] than...an arranged museum'.¹⁶⁶ Although there were over 2,000 hummingbirds – far fewer specimens than in the museum – the birds were all part of the same taxonomic family, creating a sense of cohesion that allowed visitors to compare and contrast the range of similar species. As the world's smallest known living avians, Gould was also able to manipulate the hummingbirds' characteristics, housing a greater variety of specimens in each case. The twenty-four display cases were deliberately positioned in groups, making it easier for visitors to move between the cabinets and see the collection from every angles. The iridescent colours also helped, highlighting the bird's features in contrast to the other specimens and surrounding foliage. Museologically, Gould harnessed the hummingbirds' vibrant features to appeal to the visitors' gaze, something the museum had not achieved.

However, the most important factor was the lifelike features Gould was able to replicate in the cabinets. According to Charles Dickens, who visited the collection in early 1851, 'when we leave the building in which many hundreds of these exquisite things are grouped...we will strive to forget that their beauty is not quite animate... the skills of the naturalist, who has formed this wondrous collection, has given to them almost a life-like variety'.¹⁶⁷ Although the hummingbirds were dead, Gould had succeeded in creating an exhibit that was as true to life as he could envisage. Most of the visitors had likely never seen a hummingbird before, let alone a living example – even Gould did not see a living example until 1857 – so the prospect of observing multiple hummingbird specimens was particularly novel. Making them appear lifelike was on a par with the living 'star' animals. Placed alongside ferns and flowers, the cabinets encapsulated a world in miniature, allowing visitors to glimpse into the hummingbird's world. Although the scenes were somewhat fictitious (some of the

¹⁶⁶ See, W. Blunt, Ark in the Park, p. 37.

success on the sheer volume of visitors because of the Great Exhibition. There were specific features of the collection that appealed to visitors.

¹⁶⁷ C. Dickens, 'The Tresses of the Day Star', *Household Words, A Weekly Journal – Volume III from March 29 to September 20* (London: Bradbury & Evans, 1851), pp. 289-291 (p. 289).

foliage was not native to South America), the panoramas were designed to make the hummingbirds appear as realistic as possible. It was a museological approach that not even the living collection had adopted; the majority of enclosures were concrete buildings ignorant of the occupants perceived natural habitats. Visitors could immerse themselves in the hummingbirds' world, getting much closer to the birds than other animals living in the gardens.

The hummingbird exhibition represented the Zoological Society's attempt to amalgamate its new policies of rational recreation with deceased specimens, adopting lifelike features to improve the quality of the taxidermied display. It was only a temporary exhibit, but it was carefully coordinated to open in time for the approaching Great Exhibition, bridging the gap between more traditional forms of taxidermied display and the pleasures of the Society's new scientific spectacles. As the synthesis of science and spectacle, the hummingbird collection was an adjoining exhibit amidst the Society's wider shift from dead specimens to living displays. Although the birds were dead, the collection was alive to the prevalent modes of display in the gardens' space. By comparison, the zoological museum was unable to adapt its museological qualities, which, alongside its general decline within the Society, explains why it was unable to meet the changing priorities of the prevailing councils.

By 1855, the final portion of the Society's museum had been dispersed and the shift from dead to living displays was complete. The council argued the preserved collection would now be more readily available to the general public than if it were retained in the Society's establishment, extending the advancements of science elsewhere. In disposing of the preserved collection, the annual report concluded that the council had not lost sight of its scientific utility. The dissolution of the zoological museum nevertheless marked the end of an era for the Zoological Society, which, in contrast to the living collection, signified the Society's broader shift towards living displays and recreational science. In less than thirty years, the preserved collection had been undermined by a living one, and once the gardens were opened to the public the disparities became even clearer. Once the Society's priorities had veered towards recreational amusement in the gardens, the museum's preserved specimens could no longer compete with the star-studded living collection. Instead, the gardens of the Zoological Society of London became the home of the national living animal collection, while the British Museum became the national depository for deceased animals; after 1881 the Natural History Museum would assume this role. By the mid-nineteenth century, the Zoological Society's concerns were firmly rooted in the living collection and the display of live animals, signalling the end of the Society's in-house efforts to promote scientific recreation through taxidermied specimens. It paved the way for a new era in the ZSL's history, transforming the Society's identity and reputation as well the way animals were valued and viewed in the gardens space.

Conclusion: The marriage of science and spectacle

To return to Edward Turner Bennett's quotation, as mentioned at the start of this chapter, the foundation of the Zoological Society of London formed a new era in the history of zoological science. The main features of the institution, according to Bennett, centred around the allurements of zoology and 'the higher departments of animated nature'.¹⁶⁸ For Sir Stamford Raffles and like-minded individuals in 1826, these ideals were the building blocks upon which the Zoological Society were first founded. Comparing Bennett's statement with the state of affairs at the ZSL nearly thirty years later, however, the same sentiment could also have been applied. The allurements of zoology were still very prevalent, and the higher department of animated nature continued to flourish; the only change was the manner and appearance in which these ideals were enacted. Under Mitchell's secretaryship, the general public were now able to enjoy the allures of zoology and, as the very definition of animated nature, the living collection had triumphed over the Society's preserved collection. The emphasis of Bennett's statement may have changed, but the general principles remained intact.

The establishment of the Zoological Society of London was a tedious process and, in the earliest portion of its foundation, the Society's objectives juxtaposed a utility of science with a philosophical approach to zoology. Yet despite this discordance, the Zoological Society was still able to establish various

¹⁶⁸ E. T. Bennett, *The Gardens and Menagerie of the Zoological Society*, p. v.

branches of zoological enquiry to accommodate these perspectives, including the zoological gardens, a zoological museum, and a library for scientific research. At the dawn of the Victorian era the gardens were a 'new urban amenity' for polite society, attempting to increase the popularity of the Zoological Society despite the limited access to friends and fellows.¹⁶⁹ However, the gardens 'soon became widely regarded as a kind of exclusive preserve for people of fashion, most of whom, it seemed, knew or cared little about animals'.¹⁷⁰

This all changed when the Society opted for a new direction in 1847, electing David William Mitchell as secretary. Under his guidance, the opportunity for making oneself familiar with the appearance and manner of wild animals changed dramatically, transforming the institution into one of the most popular resorts in London.¹⁷¹ It was predominantly driven by financial turmoil, but the rhetoric soon evolved to stress the Society's desire to spread useful information and forward the principles of improving working-class habits. The cultural function of the Society had changed, and particularly for the gardens, the charm of novelty centred on rational amusement, displaying live animals as scientific spectacles in an informative yet entertaining manner. From then onwards, the Society's clientèle expanded to include a variety of social classes, ranging from workers to royalty. It incorporated different levels of scientific expertise, from pure entertainment seekers to members of the scientific elite. Unlike its twenty-first century counterpart, the gardens were 'as much or more for adults as for children; an exciting and expensive display that exemplified the leading edge of science, entertainment, and education, and that resonated with public conceptions of national and imperial power'.¹⁷² Different social worlds could now collide, intersecting views and opinions that centred around the animals and the gardens' space.

The policy of open-access irreversibly changed the way the animals were valued in the gardens, redefining what public science, education, and entertainment meant in the context of the zoo. The preserved collection had diminished at the expense of the living collection, giving way to a new form of

¹⁶⁹ T. Ito, London Zoo and the Victorians, p. 52.

¹⁷⁰ S. Zuckerman, 'The Zoological Society of London: Evolution of a Constitution', p. 6.

¹⁷¹ 'Zoological Gardens, Regent's Park', *Athenaeum*, No. 1197, 5 October, 1850, p. 1041. ¹⁷² N. Murray, 'Lives of the Zoo', p. 19.

display that was not only instructive but 'refreshing for body and soul'.¹⁷³ The gardens were now subject to new forms of interpretation, with the Society placing more emphasis on the living collection. Gould's hummingbird collection may have been the Society's last attempt to piece together the prospects of a taxidermied exhibit with the appeals of spectacle science, but it was only temporary. Instead, by the mid-nineteenth century live animals in the gardens had become the new face of the ZSL. There was now a greater need to care for the increased number of animals in the gardens, which required a lot more attention. For one group of employees, this meant their responsibilities in the gardens increased tenfold. This group of workers was, of course, the zookeepers, to which the next chapter will turn.

¹⁷³ S. Åkerberg, *Knowledge and Pleasure at Regent's Park: The Gardens of the Zoological Society of London during the Nineteenth Century* (Umeå: Umeå universitets tryckeri, 2001), p. 131.

Chapter II

The Zookeeper is 'an Obscured Individual, Perfectly Unknown to Fame': Caring for Animals, and the Ethnographic Display

Amongst the material catalogued in the City of Westminster Archive is a collection of documents related to the Zoological Society of London and the wider region surrounding Regent's Park. The collection, catalogued as PL908, contains over 120 items and features a number of documents related to the zoological gardens. Dated from the late 1820s to the early twentieth century, the vast majority of items are visual images, including engravings, coloured lithographs, post cards, and even a Christmas card reproduced from a fashion plate. The images range from picturesque views of London Zoo to summer scenes of visitors around the gardens. As an assortment of images, the PL908 collection is a particularly useful compilation of visual aids and illustrations, which, alongside written accounts, provides an alternative perspective of London Zoo.

One of these items, produced in the mid-to-late 1830s, is the image labelled T136.3 (045), which is a coloured picture from a children's sticker book depicting a scene in front of the bear pit [figure 9]. The image is a synthesis of the exotic spectacles in the gardens, layering different parts of the collection and the most impressive animals then living in the menagerie. In the background there is an elephant carrying visitors and a camel sitting down, whilst to the right there is a zebra, and further back a pair of giraffes. The focal point of the image, however, is a family standing in front of the Bear Pit as a brown bear climbs a wooden pole – the expectation being the bear would reach out for food items. Like other sticker book collections, the scene is made up of detachable segments with each animal and some parts of the visitors stuck down in appropriate places to complete the picture. Nearly all segments are complete. However, on the left-hand side, there is one figure who is missing. It is not clear why they are missing, but there are

certain features that can be used to help decipher who this character might have been.¹

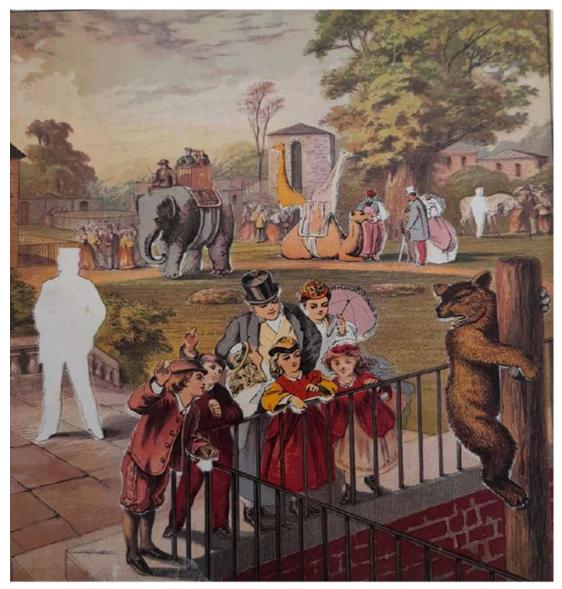


Figure 9. 'The Bear Pit, Zoological Gardens, Regent's Park', *City of Westminster Archive*, T136.3 (045), ca. 1835.

Unlike the other individuals depicted in the image, the missing figure is standing alone and is shown to be separate from the visitors. His posture is particularly important, as his body is faced towards the bear. The angle of the image is slightly raised, giving the man the impression that he is looking past the family towards the animal, perhaps to monitor its behaviour. The silhouette gives

¹ Given that the image was produced in the 1830s and the silhouette depicts someone wearing trousers, it is probable that this individual was a representation of a man. Hence the pronouns he/him.

the impression that the figure is wearing a hat, but in contrast to the plush silk top hats worn by the gentleman visitors, a symbol of urban respectability, the blank figure's hat is short and flat, much like a labourer's cap. These features possibly imply the figure was estranged from the privileged members who were typically able to enter the gardens in the 1830s. Moreover, in the top right-hand corner there is another blank figure holding the reins of the zebra; they are almost certainly a keeper. It is reasonable to suggest that the main blank figure is also a zookeeper, as these characters are the only incomplete figures. Whether this was intentional or not, the coincidence of the zookeepers' absence in T136.3 (045) points directly to the theme of this chapter, which explores the hidden role of the zookeeper at London Zoo.

Symptomatic of what Steven Shapin has coined 'the invisibility of technicians', zookeepers have typically been devoid of much historical significance in zoo history narratives, and have often been detached from general understandings of knowledge production.² Tasked with watching over the animals, zookeepers were the essential workforce in the gardens whose main responsibility was to maintain the animal collection.³ With an average of fifty-six animals to tend, the zookeepers' duties were no small feat, and, as manual labourers, they were some of the most active workers in the ZSL's service.⁴ Although standards of care and animal welfare changed over time, zookeepers regularly interacted with the animals on a personal level, developing affectionate bonds with those under their charge. Yet, the role of the zookeeper has largely been overlooked by historians. This negligence, to borrow from Shapin, has been shaped by an indifference towards the value of skilled workers, and in turn, has also transpired in the archival record.⁵ The challenge in discussing zookeepers is

² S. Shapin, 'The Invisible Technician', American Scientist, Vol. 77, No. 6 (1989), pp. 554-563.

³ Although debates over animal welfare are contentious topics at the best of times, there was a generalisable standard of responsibility towards the animals, albeit specific to the time, place, and culture. For more on ethics and more-than-human relationality see, F. Ginn, 'Sticky Lives: Slugs, Detachment and More-than-human Ethics in the Garden', *Transactions of the Institute of British Geographers*, Vol. 39, No. 4 (2014), pp. 532-544 (pp. 533-534); E. O'Gorman & A. Gaynor, 'More-Than-Human Histories', *Environmental History*, Vol. 25 (2020), pp. 711–735 (pp. 721-726).

⁴ J. Edwards, *London Zoo: From Old Photographs* 1852-1914, 2nd edition (London: Butler & Tanner, 2012), p. 284.

⁵ S. Shapin, 'The Invisible Technician', pp. 554-563. Also see, M. R. Somers, 'Narrativity, Narrative Identity, and Social Action: Rethinking English Working-Class Formation', *Social Science History*, Vol. 16, No. 4 (Winter, 1992), pp. 591-630 (p. 594); E. P. Thompson, *The Making of the English Working Class* (New York: Vintage Books, 1966), p. 196; B. X. Blouin, 'History and Memory: The Problem of the Archive', *PMLA*, Vol. 119, No. 2 (2004), pp. 296-298.

thus twofold: it requires retrieving and clarifying the significance of zookeepers, as well as seeking to take an imaginative new approach to this under-studied group. Who were the zookeepers at the ZSL, and what roles did they fulfil? How did their day-to-day activities shape the maintenance (and in some cases mismanagement) of the living collection, and can they provide new ways of thinking about human/non-human relations, especially in the context of captive 'wild' animals?

To explore these questions, the chapter takes a holistic approach to the lives of the keepers at the ZSL, unearthing some of the Society's zookeeping practices once the gardens opened to the public in 1847. At its most basic level, the chapter aims to retrieve the hidden histories of zookeepers and their impact on the general management of the zoological gardens. The first section will begin with a brief account of this particular human-animal dynamic and how keepers interacted with different groups (both human and non-human) within the gardens. Perceptions of keepers were moulded by the context of their interactions, communicating differently with specific groups at different times. Interactions with the public differed from engagements with the Society's fellows, whilst their dealings with the animals changed perceptions again. In this way, keepers were not just animal carers but entertainers, stewards, workers, and practical experts. Physical space, cultural connotations, and social dynamics dictated many of these interactions, requiring keepers to perform multiple roles. Building on these interactions, the subsequent section will look at the changing nature of zookeeping practices. Keepers not only performed rudimentary tasks, such as feeding and cleaning the animals, but were also employed to move the animals around the gardens and, in some cases, breed and rear new-borns. Experienced keepers, like James Thompson (head keeper 1859-1869), were even sent abroad to collect new animals for the Society, conveying large collections to the gardens on behalf of benefactors. Studying keepers in this way will highlight how the gardens was administered at the cage level.

The final section will take this analysis further, examining the role of non-European handlers who visited the gardens with animals. They were specialists in their own right, usually accompanying specific animals to ensure they survived long journeys to the gardens. However, unlike their 'white' keeper counterparts, non-European handlers were politicised as cultural maps and viewed as ethnographic spectacles. This exacerbated their marginality and has subsequently buttressed their historical invisibility in the archival record. Therefore, in order to readdress these shortcomings the final section will consider Harnet Safi Cannana, an Egyptian animal handler, who was employed to convey Obaysch the hippopotamus (the first hippopotamus to arrive in Britain since the Roman era) to the gardens in 1850. There are few contemporary records that mention Harnet by name, but there are plenty that discuss Obaysch and his 'Arab attendant'. Although these texts predominantly focus on the hippopotamus, by reading them against the grain it is possible to readdress some of Harnet's marginality. This will provide fresh insight into the histories of non-European handlers in the zoo. By looking at the zookeeper, the chapter offers a new way of thinking about the ZSL gardens, demonstrating how the activities of zookeeping were (and still are) essential to the maintenance of London Zoo.

The hidden histories of zookeepers

Despite their contextual significance, zookeepers have remained under-studied within the context of captive animal collections. Although mentioned in historical accounts, zookeepers have continued to be a voiceless group given nothing more than a passing comment by historians. Sarah Amato, Daniel Bender, and Narisara Murray are perhaps the exceptions to this rule, dedicating some attention to the 'humans in the zoo'.⁶ Collectively, they have shown that keepers were ubiquitous to zoological gardens and their presence was integral to the organisational structures of zoos, occupying an ambiguous place between fellow, visitor and animal ward.⁷ Although quantitively modest, their research has shown

⁶ S. Amato, *Beastly Possessions: Animals in Victorian Consumer Culture* (Toronto: University of Toronto Press, 2015), pp. 125-133; D. Bender, *The Animal Game: Searching for Wildness at the American Zoo* (Cambridge, MA: Harvard University Press, 2017), pp. 177-200; N. Murray, 'Lives of the Zoo: Charismatic Animals in the Social Worlds of the Zoological Gardens of London, 1850-1897' (Unpublished PhD Thesis: Indiana University, 2004), pp. 114-173. Jonathan Saha has also looked at the murder of a 'native keeper' at London Zoo and the response of 'white staff' in 1928. See, J. Saha, 'Murder at London Zoo: Late Colonial Sympathy in Interwar Britain', *The American Historical Review*, No. 121, No. 5 (2016), pp. 1468-1491.

⁷ S. Amato, *Beastly Possessions: Animals in Victorian Consumer Culture*, p. 130.

that animal management, and the various social dynamics that accompanied it, were important factors when handling captive animals.⁸

By comparison, social scientists have been much more thorough, examining various contemporary human/non-human bonds and the methodological implications of human contact with captive animals. This has included the impact of keeper/animal bonds in behavioural studies, with Lynda Birke, Geoff Hosey and Vicky Melfi asking the quite perturbing question 'why can't we really hug a tiger?'.⁹ Others have queried how keepers interact with 'their' animals, challenging categorisations of zoo-dwelling animals such as 'wild' and 'tame'.¹⁰ Although there are important distinctions between historical and more recent zookeeping practices, certain analytical perspectives can be incorporated into the historical discourse. The different modes of interaction are particularly noteworthy, as just as today, keepers interacted with an assortment of individuals, both human and non-human. By engaging with these studies, different perspectives of zookeeping can be appreciated. Take, for example, how the public interacted with zookeepers.

Keepers engaged with the public in a myriad of ways and were iconic figures in the zoo space. They were an immediate form of authority in the gardens, and, in a pseudo-role reversal, they were empowered to discipline visitors whom might have been considered their social superiors.¹¹ As working-class labourers, they were expected to be seen on duty, which, in conjunction with the visitors' wider zoo experience, was largely based on visual encounters.¹² Keepers were not only

⁸ S. Amato, *Beastly Possessions: Animals in Victorian Consumer Culture*, pp. 125-133.
⁹ L. Birke, G. Hosey & V. Melfi, "You Can't Really Hug a Tiger": Zookeepers and Their Bonds with Animals', *Anthrozoös*, Vol. 32, No. 5 (2019), pp. 597-612.

¹⁰J. Pedersen & Others, 'Human–Ape Interactions in a Zoo Setting: Gorillas and Orangutans Modify Their Behavior Depending upon Human Familiarity', *Anthrozoös*, Vol. 32, No. 3 (2019), pp. 319-332; A. K. Fournier & Others, 'The Human–Animal Interaction Scale: Development and Evaluation', *Anthrozoös*, Vol. 29, No. 3 (2016), pp. 455-467.

¹¹ S. Amato, *Beastly Possessions: Animals in Victorian Consumer Culture*, p. 130.

¹² For more on the sensory cross-over of human/animal interactions in the zoo space, see Irus Braverman's chapter 'Seeing Zoo Animals' in her book, *Zooland: The Institution of Captivity* (Stanford: Stanford University Press, 2013), pp. 71-91; J. Berger, *Why Look at Animals* (London: Penguin books, 2009), p. 33. For more historical implications see, N. Rothfels, 'Touching Animals: The Search for a Deeper Understanding of Animals' in *Beastly Natures: Animals, Humans, and the Study of History*, ed. D. Brantz (Charlottesville: University of Virginia Press, 2010), pp. 38-58 (pp. 39-49).

employed to care for animals, but were observable performers in their own right.¹³ Entering enclosures and off-limit areas, they had access to restricted spaces and could move between zones nominally associated with the observer and the observed.¹⁴ Furthermore, keepers frequently spoke to visitors and 'were pestered to death by questions...from early morn till dewy eve', providing information not necessarily found in the guidebooks.¹⁵ For the keepers in charge of the elephants and camels, they were also responsible for organising rides, physically helping visitors get on and off the animals.¹⁶ Monitored by the keepers, the practice enabled visitors to interact with animals outside the enclosure space, allowing the public to feed, touch, see, hear, and no doubt smell, these animals in much closer proximity. The keepers' mediation helped influence the perspectives of certain species, especially charismatic animals whose own interactions were supervised by the keepers, prioritising several animals over others. Intermediary in nature, the public's interactions and subsequent perceptions of zookeepers were vital factors in shaping views of the zoo space, influencing the transmission of popular zoological knowledge, encounters with animals, and widespread appreciations for pet favourites.

On the other hand, the keepers' engagements with the Society's council and internal scientific community were slightly different. With the power to hire and fire, the council's interactions were slightly more judicial, managing the keepers as a workforce that was overseen by the superintendent and a gardens committee. The committee reported directly to the council in the Society's offices in central London, making administrative decisions away from the gardens' setting. The committee members were responsible for regulating the workforce, demanding staff adhered to a code of 'manliness balanced with physical exertion,

¹³ For a selection of photographs depicting keepers undertaking different roles. See, G. Bolton, *All About Animals, For Old and Young: Popular, Interesting, Amusing* (London: G. Newnes, 1897), pp. 63, 121.

¹⁴ Keepers occasionally permitted visitors to go around the back of dens, into their 'private domains', where visitors could handle animals not seen on display. See, 'XXII - Zig-Zag Saurian', in *The Strand Magazine, An Illustrated Monthly, Vol. VII January to June*, ed. G. Newnes (London: G. Newnes, 1894), pp. 374-382 (p. 377); L. Heck, *Living Pictures of The Animal World: A Rare and Most Unique Collection of Exquisite Photographs from Living Specimens Only* (London: C, Taylor, 1899), p. 117.

¹⁵ R. Kearton, 'The Zoological Gardens' in, *In Living London: Its Work and Its Play, Its Humour and Its Pathos, Its Sights and Its Scenes*, ed. George Simms, Vol. 1, Sec. 2 (London: Cassell, 1901), pp. 344–50 (p. 350).

¹⁶ 'Camel with Riders, Zoological Gardens, London', City of Westminster Archive, T136.3 (032).

knowledge, and a temperate nature'.¹⁷ Formal decisions were made in these meetings, including when to promote staff, alter wages, discipline subordinates, or dismiss alleged troublemakers. Similarly, the Society's council also authorised keepers to collect animals from dealers around Britain, and, in some cases overseas. These ventures were often costly, both monetarily and in terms of animal mortality, so it was imperative that the right person was selected for the job. Such excursions enabled keepers to interact with local practitioners, drawing on broader experiences and regional practices to improve their own zookeeping skills.

The keepers' interactions with scientists and those who attended the ZSL scientific meetings were equally important in the production of zoological knowledge. 'The best account of animals in menageries, so far as their peculiarities in such a state are concerned, would come from the keepers themselves', the naturalist William Swainson argued.¹⁸ Working in close proximity with the animals, keepers accumulated a breadth of knowledge regarding their charges, becoming practical experts in animal management. Zoologists often relied on keepers when preparing scientific papers, including Charles Darwin, who described Mr Sutton as an 'intelligent keeper in the Zoological Gardens [who] carefully observed for me the Chimpanzee and Orang'.¹⁹ Keepers were also mentioned in the Society's scientific meetings and cited in the annual scientific journals.²⁰ To many fellows, though, keepers were practitioners at the other end of the social spectrum. Nevertheless, they engaged in eclectic modes of

¹⁷ D. Bender, *The Animal Game: Searching for Wildness at the American Zoo*, p. 180.

¹⁸ W. Swainson, *Animals in Menageries* (London: Longmans, 1838), p. 1.

¹⁹ C. Darwin, *Expression of the Emotions in Man and Animals* (New York: D. Appleton, 1897), p. 95.

²⁰ In 1868 James Murie, the Society's prosector, noted his gratitude to the keeper of the fish house, Frederick Tennant, who had subjoined information in a notebook on the development of salmon. Tennant's notes were compared with the superintendent's observations, and both studies were used to substantiate Murie's research. See, J. Murie, 'On the Supposed Arrest of Development of the Salmon when Retained in Fresh Water', *PZS* (1868), pp. 246-254 (pp. 246-248). Some keepers also wrote articles for the journal, but this was quite unusual. Until the insect house was built in 1881 and Arthur Thompson was made keeper of the insects, James Hunt was the only keeper to have written an article. See, J. Hunt, 'Note on the Breeding of the Otter in Confinement in the Zoological Gardens, Regent's Park in 1846', *PZS*, Part XV (1847), pp. 27-28. Those written by Arthur Thompson included: A. Thompson, 'Notes on a Species of Stick Insect Reared in the Insect-House in the Society's Gardens', *PZS* (1882), pp. 718-719; A. Thompson, 'Exhibition of a Living Specimen of the Larval Form of a Stick-insect (*Empusa egena*)', *PZS* (1889), pp. 85-87. He also wrote an annual report on the insect house between 1884 and 1901.

knowledge production and its transmission, assisting many ZSL fellows as 'common' scientific labourers.²¹

The interactions with the aforementioned groups, however, would hardly have been worth mentioning were it not for the interactions keepers had with the animals they tended. Naturally, keepers worked closely with the animals in the gardens, maintaining the collection, responding to, and in some cases facilitating, particular animal behaviours. Keepers regularly entered the enclosure space, physically interacting with their charges; the keepers were the most immediate and frequent form of contact which the animals encountered. They not only maintained the enclosures, but developed affection bonds and emotional attachments with the animals. For instance, when the seal keeper Francois Lecomte was diagnosed with throat cancer in the 1860s, he became obsessed with the idea that his 'children' (the seals) were missing him, and although desperately ill, he was determined to see them.²² Sometimes these emotional attachments were reciprocated, or at least anthropomorphically perceived to have been. In October 1893, a young King vulture was presented to the Society and housed with the tortoises, which, according to John Cornish, would follow the keeper around, sitting when he stopped and rising when he left. Once the bird reached maturity, it was 'so devoted to its keeper, that when some of the gigantic Seychelles tortoises were introduced... it rushed at them to drive them away the moment [the keeper] entered the house'.²³ No doubt the arrival of food was an important element of this anecdotal story, but to Cornish, the interaction represented something more; the vulture would lie down 'to be caressed and [wa]s in every way a very handsome and interesting bird'.²⁴

Apart from recounting an amusing interaction, Cornish's observation highlights the conundrum of discussing animal/human interactions in historical contexts, namely, the records tend to be written by humans. Seeking to recover a true 'animal perspective' is difficult, as the animals are generally acknowledged

²¹ L. Pyenson & S. Sheet-Pyenson, *Servants of Nature: A History of Scientific Institutions, Enterprises and Sensibilities* (London: Harper Collins, 1999), pp. 325-328.

²² Lecomte collapsed on the way to the gardens and was unable to complete the journey. He never left his house again. See, W. Blunt, *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976), p. 203.

²³ J. Cornish, *Life at The Zoo; Notes and Traditions of the Regent's Park Gardens* (London: Seeley, 1895), p. 11.

²⁴ J. Cornish, *Life at The Zoo*, p. 12.

in documents produced, collected, or altered by humans.²⁵ Animals had past lives, but not always historical lives, making keeper/animal interactions difficult to gauge. However, following in Gesine Krüger, Aline Steinbrecher, Clemens Wischermann, and Charlotte Hoes' footsteps, the more imaginative approaches of embodied agency can help bridge this gap and address these human/animal interactions.²⁶ Although embodied agency does not entail intentional or motivated agency on the animal's part, it does provide the animal with the ability to fulfil purposeful actions through interactions with humans, thereby influencing the outcomes of historical events recorded in human-made documents.²⁷ Logistics were affected by animal behaviours, upsetting when and if a procedure could go ahead, as well as impacting human-centred decisions like which keepers were used in certain circumstances. Resistance and unpredictability derailed human management, whilst passivity and tameness brought their own complexities. The sights and sounds of a keeper, the regularity of their work pattern, and even their scent, could impact an animals' behaviour and their embodied agency. Thus, by acknowledging these lived experiences, embodied agency can bridge the presentational gap between human and animal interactions, placing the actants within an inter-relational social world.

Thinking about these interactions can help unpack the various features of animal management in the zoo and how the aforementioned groups engaged with keepers. These interactions demonstrate that interpersonal components – and, in the case of the vulture obstructing the tortoises, an inter-animal component – were important factors in shaping perceptions of keepers, whom in turn could influence wider thoughts about the animal collection. For the different participants involved in these interactions, keepers undertook a number of roles

²⁵ 'We are never looking at the animals, only ever at the presentation of the animals by humans'. See, E. Fudge, 'A Left-Hand Blow: Writing the History of Animals', in *Representing Animals*, ed. N. Rothfels (Indianapolis: Indiana University Press, 2002), pp. 3-18 (p. 6).
²⁶ G. Krüger, A. Steinbrecher & C. Wischermann, 'Animate History: Zugänge und Konzepte einer Geschichte zwischen Menschen und Tieren', in *Tiere und Geschichte: Konturen einer "Animate History"*, ed. G. Krüger, A. Steinbrecher & C. Wischermann (Stuttgart: Franz Steiner Verlag Wiesbaden, 2015), p. 31.

²⁷ C. M. Hoes, 'Live Cargo, Dead Ends: The German Wildlife Trade in Global Perspective', *Bulletin of the German Historical Institute*, Vol. 70 (Fall, 2022), pp. 67-96 (p. 89). Also see, H. Kean, 'Challenges for Historians Writing Animal–Human History: What Is Really Enough?', *Anthrozoös*, Vol. 25, Sup. 1, (2012), pp. s57-s72 (p. s59, s64); S. J. Pearson & M. Weismantel, 'Does "The Animal" Exist? Toward a Theory of Social Life with Animals', in *Beastly Natures: Animals, Humans, and the Study of History*, ed. D. Brantz (Charlottesville: University of Virginia Press, 2010), pp. 17-37 (pp. 31-32).

and were expected, in a highly performative way, to fulfil these tasks. Each group collated different perspectives of the zookeepers, which if brought together, can illuminate the different social, spatial, and authoritative outlooks regarding their duties. The subsequent section will build on this approach, looking at the different practices involved in managing the living collection.

Daily duties and maintain the zoological collection

The number of keepers working in the gardens varied throughout the nineteenth century and was largely dependent on the financial stability of the ZSL. There were at least forty named individuals who worked in the gardens between 1847 and 1900, and before David Mitchell was appointed secretary there were around thirty-one employees.²⁸ This initial intake of keepers was quite high, but in the late-1830s successive councils slowly sought to reduce the Society's overall expenditure, cutting the number of staff to retain twenty-three persons in the gardens establishment, which remained the average number employed at any one time between 1850 and 1903.²⁹ Unlike other ZSL labourers, keepers were employed on the annual payroll and were allowed one day off a week, beginning at sunrise and finishing at sunset. Wages were organised in a tiered system, encouraging staff to progress from third-class to first-class keepers over a set period of time.³⁰ Longevity was usually the sign of a keeper's experience, and for those who became first-class keepers, they were often commended for their work, given Christmas gratuities, and personally praised by the council. Keepers

²⁸ These named individuals did not all work at the same time. The society also employed money takers, helpers, as well as a number of laborers, painters, gardeners, butchers, carpenters and blacksmiths on a weekly basis.

²⁹ This is based on biannual figures in the garden committee minutes between 1862-1903, excluding 1871-78 as the volume is missing. See, 'Minutes of Gardens Committee, 1861-1947', ZSLA, GB 0814 PAA/PAAA.

³⁰ J. Edwards, *London Zoo: From Old Photographs*, p. 284. Generally speaking, third class keepers received £66pa, second class keepers £72pa, whilst first class keepers were paid £78pa. Keepers were promoted from third class to second class after ten years' service. It took another fifteen years to reach first class status. This was reduced in 1901 when the council dropped the number of years required for promotion. From then on, third class keepers were promoted after seven years' service, and raised to first class after fourteen years. On average there were five 1st class keepers, nine 2nd class keepers, and seven 3rd class keepers. See, ZSLA, CMM, 19 June 1901; 'Minutes of Gardens Committee, 1861-1947', ZSLA, GB 0814 PAA/PAAA.

were quite well paid, and compared to other manual labourers, they had a greater independence as there was no foreman to monitor their work.³¹

Some keepers lived in the gardens, theoretically making it easier for them to tend to the animals at short notice [figure 10].³² Private quarters were located in certain buildings, like the elephant house, which were typically off limits to the public.³³ Living amongst the animals, keepers could tend to their needs 'at all hours of the day or night, sometimes sharing food and drink, and...bring[ing] animals into their domestic quarters'.³⁴ Even when the staff were nominally off-duty, 'their lives were permeated by the sight, smell and sounds of the resident animals'.³⁵ However, this was not always a pleasant experience. Abraham Dee Bartlett, the ZSL superintendent between 1859 and 1897, was frequently awoken by 'an endless barrage of animal noises', and hardly ever got a good night's sleep.³⁶ Similarly, apartments like those under the giraffe house, were repeatedly

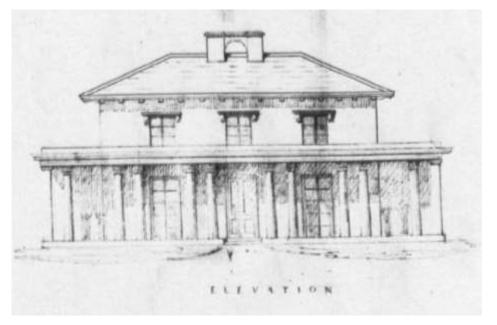


Figure 10. The Keeper's Lodge by Decimus Burton, 1828, Zoological Gardens: Papers transferred from Office of Commissioners of Crown Lands to Ministry of Works. NA, WORK 16/724

³¹ Equally, for those who made it to retirement the Society provided a reasonable pension, which compared to other workers was an affordable remuneration. See, J. Edwards, *London Zoo: From Old Photographs*, p. 284.

 ³² In 1831 a row of cottages was constructed in the north gardens, but they were eventually demolished. See, 'The Zoological Gardens, Regent's Park', *The Times*, 23 November 1831, p. 4.
 ³³ N. Murray, 'Lives of the Zoo', p. 291.

³⁴ Ibid., pp. 79-80.

³⁵ Ibid., p. 98.

³⁶ N. Murray, 'Lives of the Zoo', p. 98; A. D. Bartlett, *Wild Animals in Captivity* (London: Chapman, 1899), pp. 11-14, 51.

described as damp in winter and badly ventilated in the summer.³⁷ It was still a problem in 1903, when a reorganisation committee described the accommodation as completely dissatisfactory. They were particularly struck by the 'lack of reasonable precautions against the occurrence of fire, and the entire absence of any means of meeting any sudden emergency [that could] occur during the night'.³⁸

Work and family life were strongly interrelated, with the keepers' children joining the profession, starting off as messengers before becoming keepers. This enabled intergenerational expertise to be passed down, predominantly, from father to son. The wives of senior keepers were also retained in the gardens, selling cakes to the visitors who in turn would feed the animals.³⁹ Mrs Misselbrook, the wife of Benjamin Misselbrook (head keeper 1869-1889), was even employed to attend the ladies room in 1864, receiving ten shillings a week.⁴⁰ It is likely she continued in this post until 1879, when Mrs Bartlett was appointed 'superintendent of the ladies retiring room'.⁴¹ Subsequently, Mrs Misselbrook received a £25 annual pension, which was paid until her death in 1895.⁴² It was probable that George and Alfred Misselbrook, employed in 1857 and the early 1860s respectively, as well as Jeffrey and Thomas Misselbrook, first mentioned in 1881 and 1882, were also related. Family ties could impact the daily upkeep of the gardens, underlining that a close-knit community lived, worked, and grew up in the gardens.

Once David Mitchell was elected secretary in 1847, a number of changes were introduced to the staffing arrangements in the gardens. In 1850, the year before Gould's hummingbird collection was displayed, the committee for receipts and expenditure noted that the menagerie stock had nearly doubled in size, and notwithstanding the construction of new enclosures, had 'added very heavily to the daily work of the keepers'.⁴³ The committee recommended:

³⁷ ZSLA, CMM, 15 September 1847.

³⁸ ZSLA, CMM, 21 January 1903.

³⁹ N. Murray, 'Lives of the Zoo', p. 78.

⁴⁰ ZSLA, CMM, 18 May 1864.

⁴¹ 'Minutes of Gardens' Committee, 1861-1947', Vol. 1878-1886, 17 June 1879, ZSLA, GB 0814 PAA/PAAA.

⁴² 'Pensions List', Returns, Reports etc. 1833-1951, ZSLA, GB 0814 BDAA.

⁴³ Keepers also worked as labourers when needed. For instance, they helped construct a new aviary and stork house in 1850. See, ZSLA, CMM, 3 July 1850.

[...] an increase in the number of men ha[d] only been avoided by the careful arrangement of their duties, and considering that the work of the menagerie ha[d] to be completed at a sufficiently early hour of the day to enable the keepers to devote several hours to the maintenance of order among the visitors, it appears that if the present influx of the latter continue[d], it [would] probably become necessary to make an addition to this branch of the establishment.⁴⁴

Consequently, sixteen new keepers were employed between 1850 and 1857, replacing some of the older keepers who had worked in the gardens since its establishment. Mitchell oversaw the standardisation of the keepers' uniform, supplying them with jackets bearing the initials 'ZSL' on the lapels and the cypher 'SoC' on the buttons.⁴⁵ Regulations continued to be introduced, and in 1852, the council ordered the whole workforce to breakfast, dress, and dine on-site without exception. Those living on-site were permitted to leave the gardens in rotation, not exceeding four persons at a time. Staff had to return to the gardens no later than eleven o'clock in the evening, when the superintendent would ascertain whether the regulations had been complied.⁴⁶

Likewise, after Abraham Dee Bartlett was appointed superintendent in 1859 – the same year Philip Sclater was elected secretary of the ZSL and David Mitchell became the director of the new jardin d'acclimatisation in Paris – the ZSL gardens' committee gradually introduced a number of workforce incentives. The incentives were designed to improve the productivity of the keepers, attempting to mould them into a reputable class of workers [table 2]. For instance, in November 1866, the committee recommended keepers start a journal, detailing the habits of the animals under their charge. Sadly, none of these journals have survived, but annual prizes were awarded for the best kept journals.⁴⁷ Similarly, in 1868 the council set aside £10 to improve the keeper's library.⁴⁸ The library collection contained several papers from the Society's scientific meetings and

⁴⁴ ZSLA, CMM, 3 July 1850.

⁴⁵ ZSLA, CMM, 17 May 1848. Great coats for the winter months were later issued, and new ones were provided every other year. See, ZSLA, CMM, 15 January 1868.

⁴⁶ ZSLA, CMM, 17 November 1852.

⁴⁷ In 1868, Benjamin Misselbrook won first prize for the best kept journal. Robert Holland and James Travers were awarded joint second. Seth Sutton and Arthur Thompson each received 10 shillings for fairly kept journals. In 1872, a £5 prize was awarded to John Goss, £3 to Robert Holland, and £1 each to: James Church, James Tennant, George Waterman, Alfred Misselbrook, Stephen Sutton, Seth Sutton, Henry Self, John Stimpson, and Clarence Bartlett for the upkeep of their logs. See, ZSLA, CMM, 5 February 1868; ZSLA, CMM, 7 February 1872.

⁴⁸ See, ZSLA, CMM, 3 June 1868;

miscellaneous natural history manuals. Most of the books were British orientated, both in terms of substance and scientific outlook, but other works included George Cuvier's *Animal Kingdom* and Anselm Desmarest's *Mammologie ou description des espèces des Mammifères*.⁴⁹ The collection was stored in the picture gallery next to the reptile house, but it is unclear how often it was used.⁵⁰

The measures were designed to monitor the keepers' behaviours and standardise their actions. However, these regulations were often resisted, and several keepers were reprimanded for their insubordination. Drunkenness was the most common offence, with at least six keepers suspended or dismissed between 1850 and 1885. William Cocksedge, the reptile keeper, was reprimanded for misconduct in 1850, and, by June 1851, he was told to leave.⁵¹ Similarly, Thomas Wilkins, was suspended for fifteen days in 1882, and three years later was dismissed for being so drunk that he left one of the antelope sheds open.⁵² Thankfully, it was not a dangerous animal, but it exemplified the restraint keepers were expected to show. Others, like Mr Edmonds, were dismissed for bribery, Edward Roche for using 'insulting language towards the superintendent', and John Ellis for 'stealing pigeons which had been supplied for the purpose of feeding the hawks in the menagerie'.⁵³ Most keepers adhered to the regulations, but there were clear socio-economic undertones to these

⁴⁹ 'List of Works in the Keeper's Library 1844', ZSLA, GB 0814 GABJ. For differences in British, German and French biological thought see, E. Mayr, *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge, MA: Harvard University Press, 1982), pp. 343-393.

⁵⁰ The following year another £10 was set aside for the library, but it is unclear what happened to the books after this period. In 1874 the picture gallery was turned into a lecture theatre. However, the keeper's library may have remained in the building. See, ZSLA, CMM, 15 September 1869. ⁵¹ ZSLA, CMM, 4 December 1850; ZSLA, CMM, 4 June 1851. William Cocksedge was likely kept

on as a labourer as his name reappeared in 1867. He is listed as a lion keeper, so it is possible he was eventually reinstated, retiring in 1869. He died in 1885. See, 'Pensions List', Returns, Reports etc. 1833-1951, ZSLA, GB 0814 BDAA.

⁵² ZSLA, CMM 18 November 1885. Incidentally, Thomas Wilkins had been employed to replace William Bernard who was also dismissed for insubordination in January 1860. See, ZSLA, CMM 16 January 1860.

⁵³ ZSLA, CMM, 18 May 1853; ZSLA; CMM, July 4, 1865; ZSLA, CMM, 17 July 1867. Rather less serious, John Hamilton was suspended for impinging the regulations to leave the gardens. He was eventually dismissed for 'want of cleanliness in the keeper's bedroom'. See, ZSLA, CMM, 5 January 1863; ZSLA, CMM, 4 October 1854.

Keeper's name	Start date	Animal Charge	Highest known status	Additional information
John Goss	1829	Parrots		Died after leg was crushed by an elephant 1879
Henry Hunt	ca. 1833	Hippopotamuses	2 nd Class 1866	Worked with Hamet Safi Cannana to secure animals from Egypt
William Cocksedge	ca. 1841	Reptiles		Disciplined 1850, 1851. Dismissed 1851. Reinstated as a lion keeper 1867. Retired 1869. Died 1885
John Noble	1851	Bears	2 nd Class 1861	Disciplined 1861, 1867, 1871. Dismissed 1871
Mathew Scott	1852	Elephants	1 st Class 1876	Left for America with Jumbo 1882
Michael Prescot	1852	Bears	1st Class 1876	Died 1891
Benjamin Travers	1852	Aviaries	1st Class 1876	
James Tennant	1853	Fish/reptiles	3rd Class 1862	
Henry Self	1855	Camels	1st Class 1880	Retired 1897. Died 1899
Seth Sutton	1856	Lions	1st Class 1881	Retired 1897. Died 1899
Richard Godfrey	1856	Elephant/Rhinoceroses	1st Class 1881	He was later appointed a bear keeper after an injury. Retired 1900
James Church	1861	Aviaries	1st Class 1896	Disciplined for teasing the birds. Retired 1902.
George Waterman	1863	Elephant	1ªt Class 1893	Retired 1902
Stephen Sutton	1863	Seals	1=t Class 1892	Retired 1896. Died 1900
Adolphe Lecomte	1866	Sealions		Died 1877
John Tyrrell	Unknown	Reptile	2 nd Class 1886	Appointed head of the reptile house 1890
Charles Eyles	Unknown	Elephants	2 nd Class 1887	Died 1822
George Mansbridge	1882	Kangeroos/Anteaters	Head keeper 1902	Died 1913
James Waterman	1883	Diving Birds	2 nd Class 1893	
Henry Roberts	Unknown	Elephants	2 nd Class 1885	
E. Ockenden	Unknown	Fish	Gate keeper 1903	Appointed fish house superintendent
Frederick Tennant	ca. 1868	Fish	3rd Class 1895	
F. La Roche	1879	Three Island Ponds/Ducks	1st Class 1901	He was later made a Senior Keeper 1909. Retired 1911. Died 1924
Benjamin Travis	Unknown	Aviaries	1st Class 1897	Died. 1897
Frederick Quantrill	Unknown	Insects	2 nd Class 1900	Appointed head of the insect house 1885

Table 2. Staff appointments with known animal charges, 1829-1903

based drinking habits.⁵⁴ Nevertheless, keepers generally adopted these policies.⁵⁵

One of the main tasks keepers performed was feeding the animals. Naturally, the animals required material sustenance, so keepers had to learn what different animals ate, adjusting food types to accommodate the variety of animals displayed at any one time. Depending on what was required, supplies were purchased from local providers and prepared on-site by a butcher.⁵⁶ It was generally impractical to accommodate natural diets, so substitutes were used. Mutton, beef, and horseflesh was given to carnivores, whilst English hay and local plant materials were fed to the herbivores. Food was then taken to the animals using wheelbarrows and buckets to distribute the portions.⁵⁷ Feeding practices differed from animal to animal, with some, like the seals, made to perform tricks for their food. The bears, on the other hand, were persuaded to climb a pole for buns, while the polar bears were fed using a long stick that encouraged them to stand on their hindlegs and display their size [figure 11]. Other practices were more contentious, like feeding the snakes, emphasising more 'naturalistic' behaviours that included using live prey.⁵⁸ Feeding young and physically weakened animals was particularly challenging, as they needed additional care and attention.⁵⁹ In 1865, for instance, Benjamin Traver, then a second-class aviary keeper, regularly handfed a sun-bittern chick having observed its parents feeding one chick more than the other. The bird readily took food from Traver,

⁵⁴ For drink and drunkenness in nineteenth century Britain see, P. Jennings, 'Policing Drunkenness in England and Wales from the Late Eighteenth Century to the First World War', *The Social History of Alcohol and Drugs*, Vol. 26, No. 1 (2012), pp. 69-92.

⁵⁵ In a rudimentary way, their duties were not too dissimilar from those performed today. That being said, safety precautions and animal welfare have certainly changed, but typical day-to-day tasks have continued. This includes, feeding, cleaning, rearing, and monitoring the animals. For more information see, I. Braverman, *Zooland: The Institution of Captivity*, pp. 127-185.

⁵⁶ V. Pouillard, 'Animal Feeding, Animal Experiments, and the Zoo as a Laboratory: Paris Menagerie and London Zoo, ca. 1793-1939', *Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 705-728 (pp. 709-713).

⁵⁷ A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'* (London: Chapman & Hall, 1900), p. 58.

⁵⁸ P. Chalmer Mitchell, 'On the Feeding of Reptiles in Captivity, With Observations on the Fear of Snakes by Other Vertebrates', *PZS* (1907), pp. 785-794; W. Blunt, *Ark in the Park*, pp. 219-231; J. R. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', *HoS*, Vol. 53, No. 3 (2015), pp. 338-361 (pp. 350-353).

⁵⁹ Writing about feeding Rook chicks, Bartlett noted 'you must be prepared to be subjected to a vast amount of trouble and vexatious annoyance...each bird should be fed by hand every two hours from daylight till near sunset'. See, A. D. Bartlett *Bartlett's Life Among Wild Beasts in the* 'Zoo', pp. 221-222.

and in this way both birds survived.⁶⁰ Monitoring the animals was key to their survival, requiring zookeepers to have a patient and adaptive approach. In the words of the elephant keeper Mathew Scott, zookeepers had to learn how to care for the animals, 'know what their various wants [were]...study their character to learn their little ways, before you can appreciate them, or they will appreciate you'.⁶¹



Figure 11. 'General View of the Zoological Gardens in Regent's Park Showing the Public Watching the Bears Being Fed', ca.1870-1889, *Historic England Archive*, YOR01/CC97/00711

Tending to new arrivals and species exhibited for the first time was just as daunting, as keepers could often be just as perplexed as the visitors. New arrivals

⁶⁰ A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'*, p. 228.

⁶¹ M. Scott, Autobiography of Mathew Scott: Jumbo's Keeper, formerly of the Zoological Society's Gardens, London, and Receiver of Sir Edwin Landseer Medal in 1866 – Also Jumbo's Biography by the same author (New York: Trow's Printing Co, 1885), p. 13.

were frequently undernourished and distressed from the experience, making the task of managing them even harder, especially if little was known about the animal. This was the case when a red panda arrived 22nd May 1869 – the only one to survive the journey – which was described as very exhausted and not able to stand.⁶² Dr. H. Simpson in Darjeeling had forwarded instructions in reference to its food, but as Bartlett noted, 'it was evident that this food [a guart of milk per day, with a little boiled rice and grass], the change of climate, the sea voyage, or the treatment on board ship had reduced the poor beast to a pitiable condition'.⁶³ The first objective was 'to support the little life that remained by a change of food'.⁶⁴ Boiled meats were applied but with little success. Eventually, the red panda accepted arrowroot with the yolk of eggs and sugar mixed with boiled milk. A few days later, the keepers observed that 'the appetite of the animal for sweet food was remarkable, and by adding a little sugar to the meat...it was induced to eat it freely'.⁶⁵ Not knowing what the red panda naturally ate, a process of trial and error was adopted, which, in the red panda's case, went against the advice provided by the benefactor.

Alongside feeding the animals, keeping the enclosures clean was another task of paramount importance. It was a regular duty, and depending on the size of the enclosure, it was often an arduous and most likely smelly job. The work was usually carried out whilst the animals were in their enclosures, but for more dangerous species, holding pens and separate cages were used. Contemporary photographs reveal that the elephant house, built in 1870, was particularly susceptible to dirt and mud, which is hardly surprising given it housed ten large herbivores at one point. Fitted with two outdoor bathing pools, the paddock grounds would be churned up, creating a thick bog for the pachyderms to wallow. Ironically, this may have accounted for the longevity of the rhinoceroses in the gardens (who shared the house with the elephants), but for the keepers, it was likely a big job to clean.⁶⁶ As well as the dens, the animals needed cleaning too. This was to minimise the spread of disease and pests – rats were a constant

65 Ibid., p. 38.

⁶² RoC (1870), p. 22.

⁶³ A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'*, p. 38.

⁶⁴ Ibid., p. 38.

⁶⁶ J. Edwards, London Zoo: From Old Photographs, pp. 134-153, esp. 134, 152.

problem – making cleanliness a top priority.⁶⁷ Recalling the state of Jumbo the elephant when he first arrived in 1865, Mathew Scott noted how he had never seen such a woe-begone creature; 'the hoofs of the feet and the tail were literally rotten, and the whole hide was so covered with sores'.⁶⁸ Scott and Bartlett tended to Jumbo's skin, applying lotions to remove 'his leprous coat as cleanly as a man takes off an overcoat'.⁶⁹ Cleanliness was next to godliness, and a clean animal was often a more healthy one.⁷⁰ Keeping the animals and enclosures clean thus aimed to ensure the exhibits were relatively sanitary, odourless, and aesthetically pleasing to visitors.

Sometimes the keepers were also responsible for breeding and rearing new-borns. This was a tentative process, and in terms of success was often a mixed bag.⁷¹ If keepers were successful, though, they were awarded medals for their efforts, expanding the collection and giving the Society leverage to sell its duplicates to other institutions.⁷² Keepers wielded a lot of power in this regard, determining which animals were allowed, or at least encouraged, to bred in confinement.⁷³ In some cases, like the sun-bittern chick, direct intervention and hand-rearing was necessary to reduce mortalities. This included much larger

⁶⁷ A. D. Bartlett, Bartlett's Life Among Wild Beasts in the 'Zoo', p 223.

⁶⁸ M. Scott, Autobiography of Mathew Scott, p. 45.

⁶⁹ M. Scott, Autobiography of Mathew Scott, p. 45.

⁷⁰ Bartlett confirmed this view in own account of elephants, suggesting their rapid growth was accounted for by 'favourable circumstances under which they are constantly kept – well supplied with the best food...coupled with the care bestowed upon them in being provided with a bath, together with the constant scrubbing and cleaning of their skins'. See, A. D. Bartlett, *Wild Animals in Captivity*, p. 57.

⁷¹ This was certainly the case for the big cats. The leopards, pumas, and ocelots bred successfully in the gardens, producing litters of up to four or five cubs. By comparison, cheetahs never bred in the gardens, and the tigers only rarely produced offspring.

⁷² A. D. Bartlett, *Wild Animals in Captivity*, p. 182; A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'*, pp. 29-30. This was first awarded in July 1866, when Benjamin Misselbrook, Henry Hunt, and Mathew Scott all received a bronze medal for 'their meritorious success in breeding foreign animals in the Gardens'. See, ZSLA, CMM, 4 July 1866; H. Scherren, *The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library* (London: Cassell & Co, 1905), p. 143.

⁷³ The embodied agency of individual animals, however, should not be overlooked. The animals' ethological responses to mating, climate, and diet, also affected the outcome of courtships. See, C. M. Hoes, 'Live Cargo, Dead Ends', pp. 67-96 (p. 89). Breeding also led to malformations and defects in some of the animals, despite a keeper's best intentions. For instance, Seth Sutton, the lion keeper, had great trouble rearing lion cubs between 1880 and 1900, discovering malformities in the lions used for breeding. He had previously been awarded £5 for successfully rearing four lion cubs in 1873, but found the palatal bones of the lions mouth were imperfectly open. This made it difficult, if not impossible, for the cubs to suckle. The abnormality was not confined to a particular pair of lions either. Different lions, in no way related to one other, would produce these malformed cubs. See, ZSLA, CMM, 15 January 1873; A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'*, pp. 31, 72.

animals, which, as Bartlett noted, was 'a task of considerable difficulty, and one not altogether free from danger'.⁷⁴ Many of these circumstances required keepers to have a certain amount of preparedness, forcing them to be tractable yet vigilant at all times. Moving animals around the gardens, for instance, was a particularly delicate job that required keepers to cooperate with each other. No two transfers were the same, but if done efficiently, it could be a relatively straight forward process (at least for the humans involved).⁷⁵ If deemed appropriate, animals were walked to their new enclosures, but travelling boxes were also available. Keepers had to appear in control of the animals, rendering their charges 'well behaved' in the eyes of the press. Precautions were usually taken, but sometimes it was a case of learning from previous mistakes. Birds with the ability to fly had their primary wings clipped, whilst rodents were placed in iron cages instead of wooden ones to stop them gnawing through the fences.⁷⁶ However, more serious mishaps did occasionally occur, and the possibility of more dangerous animals being loose in the gardens was a constant source of anxiety.

Bears were common culprits caught trying to escape. Bruin the bear was said to be a particularly bad influence and 'if he wished to be free, would try his utmost to accomplish his purpose'.⁷⁷ If a bear required more liberty, Bartlett argued, it would do its 'best to get it... all at once [it will be] discovered that he has broken his chain, or that he has found out a weak place in his cage or den, and, probably, in the middle of the night he will be amusing himself in the larder, or at any rate in some place where his presence is least desirable'.⁷⁸ Escapes could occur at any time, so watchmen were employed to patrol the gardens. They not only kept human intruders at bay, but also the animals within, raising the alarm if needed. This was called for when a black wolf escaped in the middle of the night, and keepers were ordered to capture it. They found it near the polar bear den, and by turning the watchman's lantern on the wolf, the keepers managed to catch its attention in the light. Moving around the sides, Bartlett and two assistants were able to creep up and get hold of it, 'safely cag[ing] him for

⁷⁸ Ibid., p. 153.

⁷⁴ A. D. Bartlett, Wild Animals in Captivity, p. 79.

⁷⁵ For examples of moving animals around the gardens see, A. D. Bartlett, *Wild Animals in Captivity*, pp. 67-69; 'The Zoological Society's Lions', *ILN*, 29 January 1876, pp. 99-100.

⁷⁶ A. D. Bartlett, *Bartlett's Life Among Wild Beasts in the 'Zoo'*, p. 187; A. D. Bartlett, *Wild Animals in Captivity*, p. 106.

⁷⁷ A. D. Bartlett, *Wild Animals in Captivity*, p. 153.

the night'.⁷⁹ Charged with controlling the animals, keepers were responsible for ensuring the animals stayed within their 'designated' spaces. If an animal 'resisted', orders were issued to kill them.

Constantly being surrounded by wild animals was not a risk free occupation and injuries did occasionally occur. For example, on 13th July 1889, a wolf managed to leap over the head of its keeper whilst being fed and escaped into the gardens. There were several children nearby, 'and but for the bravery of the keeper there could scarcely have escaped injury'.⁸⁰ The keeper seized the animal, and 'although his hand was terribly bitten...he succeeded in mastering the beast and returning it to its cage'.⁸¹ The bite was a relatively minor injury, at least compared to Edward Girling, the reptile keeper, who was killed by a venomous snake in 1852. According to The Times, Girling had been showing off to a fellow attendant whilst drunk and had picked up a cobra from its cabinet. The snake subsequently coiled around his waistcoat and came out behind his head. Trying to get hold of the snake, it attacked Girling in the face, drawing blood from the bridge of his nose. By the time the other attendant fetched the head keeper, the snake was conveniently back in its compartment and the glass case closed. Girling was taken to the nearest hospital, but died a few hours later.⁸² The coroner concluded that Girling had died 'in a state of intoxication, and in consequence of his own rashness and indiscretion'.⁸³ This was not the only time a keeper died in the gardens. In May 1879, 72-year-old keeper John Goss had his leg crushed by a young Indian elephant, which as a result, was amputated. Three weeks later, he died of his injuries.⁸⁴ Such incidents tended to be the result of careless

⁷⁹ A. D. Bartlett, *Wild Animals in Captivity*, p. 43.

⁸⁰ 'Escape of a Wolf at the Zoological Gardens', *Dundee Evening Telegraph*, 19 July 1889, p. 2.
⁸¹ Cheshire Observer, 20 July 1889, p. 3.

⁸² For the full account see, W. Blunt, Ark in the Park, pp. 221-222.

⁸³ W. Blunt, *Ark in the Park*, p. 222. Also see, J. R. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', p. 343.

⁸⁴ John Goss was an experienced keeper who had worked in the gardens since 1829, predominantly in the parrot house. The parrot house was next to the elephant enclosure, so Goss occasionally cleaned the paddocks alongside his own duties. However, on April 16th 1879, upon entering the paddock, Rostom, a young Indian elephant, crushed Goss's leg. Like Girling, Goss was taken to the University College Hospital. Although the council meeting minutes were later edited to note Goss's leg had been injured instead of crushed, the official inquiry returned the verdict that it was an 'accidental death'. The incident threatened to leave Goss's window and their two children destitute, but the council agreed to give Mrs Goss her husband's pension that was duly paid until her death in 1898. See, ZSLA, CMM, 16 April 1879; ZSLA, CMM 21 May 1879; *Aberdeen Press and Journal*, 15 May 1879, p. 3; *Worcester Herald*, 24 May 1879, p. 7. The only other keepers' death to appear in the council minutes was that of Ernest Harrison, a helper in the

behaviour, but in the case of John Goss, it exemplified how the animals, and their 'unpredictability', were influential factors in how duties were conducted. Interactions with the animals could have direct repercussions for the staff.

Most duties were conducted in the gardens, but some tasks required keepers to travel elsewhere. The logistics of depositing animals in the gardens, for example, necessitated keepers to go to visit various docklands to receive and then accompany prospective animals to the gardens, acting as a representative of the Society. On 3rd April 1850, Henry Hunt (head keeper 1847-1859), was sent to Plymouth to receive a lioness, a leopard, two ostriches, and two gazelles that had been presented to the Society by Queen Victoria.⁸⁵ Likewise, in 1898, the assistant superintendent Arthur Thompson, was instructed to retrieve a giant Galapagos tortoise from the docks, which had been purchased by Walter Rothschild. It arrived on 27th March on the P&O steamship, Oceana, where Thompson superintended the tortoise in a crate on the Great Western Railway. Owing to the unwieldly size of his charge, the tortoise 'was eventually given the liberty of an entire van, where it was banked with foot-warmers as a remedy against the cold'.⁸⁶ The majority of these valet-styled collections were animals donated by wealthy individuals, to whom the ZSL council was determined to impress; the keepers were somewhat of an insurance policy. Indeed, one of the most dependable keepers employed for this purpose was James Thompson, who, rather than simply collecting animals from British docks, was sent abroad to secure large collections from benefactors overseas.

Thompson's first overseas expedition occurred in 1856, when the ZSL council instructed him to take charge of a large collection of animals from Calcutta.⁸⁷ Although the project, which was widely considered an experiment for acclimatising Himalayan pheasants in Britain, was 'carried out on an

menagerie who shot himself in the head. He died in the Northwest London Hospital. See, ZSLA, CMM, 21 December 1897; ZSLA, CMM, 19 January 1898.

⁸⁵ RoC (1850), p. 21.

⁸⁶ 'A Tortoise with a History', *ILN*, 23 April 1898, p. 593. Unofficially, Bartlett and Frank Buckland, the son of the palaeontologist and geologist William Buckland, would also take trips to port cities across the country, including London, Liverpool, and Southampton, innocently 'hanging about the docks on the lookout for sailors [and their] exotic pets'. See, R. Girling, *The Man who ate the Zoo: Frank Buckland Forgotten Hero of Natural History* (London: Chatto & Windus, 2016), p. 87. ⁸⁷ T. Ito, *London Zoo and the Victorians*, *1828-1859* (Woodbridge: Boydell & Brewer, 2014), p.

^{151.}

unprecedentedly large scale, there was no guarantee that the outcome would be good'.⁸⁸ Of the 230 specimens Thompson shipped back to England in March 1857, only a quarter survived. Reporting to the secretary in July 1857, Thompson noted that 'it is with the greatest possible regret that I have to inform you of my almost total failure with the pheasants'.⁸⁹ It was not the intended result, and had been hindered by logistical delays, poor communication, and the wider political unrest that had erupted in northern India. Overall, the 1856-7 acclimatisation project was a disaster.⁹⁰ However, six years later, the council recommissioned Thompson to travel to India again, this time to take charge of two rhinoceros – one destined for the ZSL and the other for the Dublin Zoological Society – as well as 'other valuable animals offered to the menagerie by Mr Arthur Grote'.⁹¹ From Calcutta, Thompson would then proceed to Akyab, in Burma, and receive another collection from William Dunn, returning to England on the next available steamship.⁹²

Thompson visited sixteen outfitters across London in preparation for the expedition, purchasing an assortment of personal items for the journey.⁹³ The superintendent even ordered the gardens' labourers to construct some travel boxes for him, as the Society was preparing to send eight cages of animals (mainly birds) to Rajendra Mullick, a corresponding fellow who was involved in the 1856-7 acclimatisation project.⁹⁴ In all, the Society paid for Thompson's life insurance, ticket, and provisions; the entire outfit cost £197 17s 5d.⁹⁵ On 28th November 1863, Thompson left England in the *Hydaspes* and reached Madras via Cape Town on 6th March 1864. He reported that he had not lost a single bird

⁸⁸ T. Ito, London Zoo and the Victorians, p. 154.

⁸⁹ James Thompson to David Mitchell, 13 July 1857, ZSLA, GB 0814 BADT, James Thompson Papers.

⁹⁰ For a full account of the 1856-7 acclimatisation project see, T. Ito, *London Zoo and the Victorians*, pp. 138-161.

⁹¹ P. L. Sclater, 'Extract of a Letter from Mr W. Dunn', *PZS* (1863), pp. 370-371 (p. 370).

 ⁹² ZSLA, CMM, 21 October 1863; P. L. Sclater, 'Extract of a Letter from Mr W. Dunn', p. 370.
 ⁹³ This included 'military clothing for home and foreign use', travel rugs, sheets and pillows, right down to a hair brush and a flannel. He bought these items in Camden Town, Hampstead, Bishopsgate and Oxford Road. See, Indian Outfit checklist, undated, GB 0814 BADT, James Thompson Papers.

⁹⁴ Cheque signed by Bartlett, November 28 1863, ZSLA, GB 0814 BADT, James Thompson Papers.

⁹⁵ Receipt to Ship Animals to India, 3 December 1863; East Indian Army Agency Cheque, 4 December 1863; Disbursement of Petty Costs, 15 December 1863, ZSLA, GB 0814 BADT, James Thompson Papers.

under his charge, and they were 'all in good health and condition'.⁹⁶ The steamer to Calcutta was due to leave in a few days' time, so Thompson delivered a number of letters to fellows on behalf of the secretary, including a packet of books to the Governor of Madras, William Denison.⁹⁷ Whilst in Madras, Thompson also befriended some crew members on board the *Golden Fleece*, which was shortly due to depart for London. Writing to Philip Sclater about it, Thompson noted that the chief engineer, Mr Bray, had a fine collection of jungle fowl, two pheasants, a

remarkable fine specimen of python, and another imperfect lot of animals. Although the engineer refused to part with the pheasants, he gave Thompson information about the person from whom he had purchased the pheasants. Bray promised the Society 'should have the rest of the collection should they survive the voyage'.⁹⁸

Thompson reached Calcutta on 14th March, to which the secretary updated the fellows back in London, stating 'he had been singularly successful in taking out the birds presented by the Society to the Babu Rajendra Mullick, having delivered them all alive and in first rate condition, with the exception of a single cassowary'.⁹⁹ Rajendra Mullick was particularly impressed with Thompson's capabilities, later noting to Sclater that he 'ably conducted the charge he has been entrusted with'.¹⁰⁰ These favourable conditions continued and, fortunately for Thompson, William Dunn's collection was forwarded from Akyab, docking into

⁹⁶ Thompson reached Cape Town around Christmas 'without so much as a single loss amongst the things under [his] charge'. He had little doubt, except at the expense of his own health having 'suffered much from the intense heat', that he would be able to take a large portion of animals back to London. See, J. Thompson to P. L. Sclater, 22 December 1863; 6 March 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

⁹⁷ ZSLA, CMM, 20 June 1860. Thompson received a letter from Denison on his return journey stating, the Governor wished to support the Society and procure an orange-quilled porcupine. The whereabouts of a prickle had been discovered and it was hoped that a specimen would soon be obtained. In 1865, four orange-quilled porcupines were delivered to the ZSL. It was the first time the species had been exhibited in Europe. Not even the British Museum had a specimen. See, RoC (1865), pp. 20, 24.

⁹⁸ James Thompson to P. L. Sclater, 6 March 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

⁹⁹ P. L. Sclater, 'Announcement', *PZS* (1864), p. 168.

¹⁰⁰ Rajendra Mullick to P. L. Sclater, 20 March 1864, ZSLA, GB 0814 BADM, Rajendra Mullick Papers; J Thompson to P. L. Sclater, 21 March 1863, ZSLA, GB 0814 BADT, James Thompson Papers. For more information on Rajendra Mullick see, T. Ito, *London Zoo and the Victorians*, p. 150; D. Chatterjee, *A Short Sketch of Rajah Rajendro Mullick Bahadur and His Family* (Calcutta: Marble Palace, 1917), pp. 23-24.

Calcutta a day before he arrived.¹⁰¹ Regrettably, though, many of Dunn's specimens were deemed completely worthless, while a number of others had been destroyed by a mongoose that had escaped its cage.¹⁰² Frustrating as this was, some were despatched to England, but the majority were deposited in Mullick's private menagerie.¹⁰³ In the end, Thompson only selected a handful of animals from Dunn's collection.¹⁰⁴

By comparison, Mr Grote's collection was slightly better stocked. Along with a selection of pheasants and other gallinaceous birds from Dr Squire in Dinajpur, plus the two rhinoceroses, it was a highly desirable assortment.¹⁰⁵ After negotiations were finalised with the captain of the *Hydaspes*, the animals were placed on board, but, numerically, it was still a relatively small collection. This was further frustrated by the limited space on-board, which had been taken up by horses, dogs, and goats from other passengers returning to Madras.¹⁰⁶ The freight charges cost £300, and the animals were dispersed across the vessel. The rhinoceroses were placed in the lower storage, whilst the pheasants and cassowaries were stored on the upper deck. Thompson was obliged to share his cabin with a rhinoceros hornbill.¹⁰⁷ The assorted party arrived at England on 25th

¹⁰¹ Six large crates of birds and animals arrived in Calcutta from Akyab, another two were added by Mullick upon arriving in Calcutta. See, Goods Notice on SS Persia, 3 March 1864; Goods Notice on SS Burmah, 15 March 1864, ZSLA, GB 0814 BADT, James Thompson Papers.
¹⁰² J. Thompson to P. L. Sclater, 21 March 1864, ZSLA, GB 0814 BADT, James Thompson Papers. Out of the 29 cranes shipped to Calcutta, 16 had already died. Thompson feared he would 'not be able to save a single specimen of these birds'. See, J Thompson to P. L. Sclater, 20 April 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

¹⁰³ This included a very young bird and an 'utterly valueless' badger. J. Thompson to P. L. Sclater, 21 March 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

¹⁰⁴ Dunn was quite apologetic for this mishap and offered to present the society with a pair of Gayals in due course. Coordinated with Mullick, this was organised in the autumn of 1865. A pair was shipped to London, however, the female died on route. The male arrived at the gardens but died shortly afterwards. A second pair was sent in 1868 but only the female survived. See, P. L. Sclater, 'Exhibition of a photograph of a pair of Gayals intended for the Menagerie', *PZS* (1865), p. 465; P. L. Sclater, 'Notice of the addition of a Gayal', *PZS* (1866), p. 1; RoC (1867), p. 20.

¹⁰⁵ Arthur Grote refused to send a hornbill and 'ape through fear of this dying with cold from the Cape winter'. According to Thompson, the ape lived without any restraints in the village, 'its food is entirely fresh, to which he helps himself without fear of molestation from the natives, with whom he is a great favourite. Mr Grote has some new gardens, a fish house, and eagles from the Andamans, and many other interesting things which from want of space, I was obliged very reluctantly to leave behind'. See J. Thompson to P. L. Sclater, 20 April 1864, James Thompson Papers.

¹⁰⁶ J. Thompson to P. L. Sclater, 20 April 1864, ZSLA, GB 0814 BADT, James Thompson Papers; R. Mullick to P. L. Sclater, 9 April 1864, ZSLA, GB 0814 BADM, Rajendra Mullick Papers.

¹⁰⁷ J. Thompson to P. L. Sclater, 20 April 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

July, with a 'fine series of animals', along with a few birds Thompson had obtained in Cape Town from Mr Layard, the Curator of the South African Museum.¹⁰⁸ Only a few animals were lost, and in total, twenty-four animals were successfully deposited in the gardens. Thus, the council awarded Thompson £50 for the sufficient way in which he carried out his duties.¹⁰⁹

Although Thompson was somewhat disappointed with his efforts, judging the collection to be numerically small, the task of retrieving the animals was an important one. It was a lengthy process that required him to deal with a number of factors and learn from his previous expedition. Yet, despite the drawbacks, not to mention the everyday logistics of feeding, maintaining, and physically getting the animals to England, Thompson represented the Society in an international way. Like his interactions with Mr Bray and the crew members in Madras, Thompson communicated with different people throughout the journey, linking London, Cape Town, Madras, and Calcutta, as well as Akyab and Dinajpur, in a web of interpersonal connections. Furthermore, Thompson also mediated additional contacts for Mullick before departing India, introducing him to another animal collector, Mr Lidbetter of the ship *Swanthorne*, on the basis that he had experience in taking charge of live animals. Mullick later acknowledged this introduction to Sclater, stating:

This gentleman [Mr Lidbetter] informed me that he is well acquainted with yourself and appeared willing enough to take charge of my conveying any natural objects to you. He was then about to leave for China and very likely will return to Calcutta within three or four months from that time. From whence travelling to England. If you'd like to have them conveyed for the SoC through him or through any other man, you will be kind enough to let me know as soon as you can.¹¹⁰

Although the introduction was a small gesture on Thompson's behalf, it proved to be a valuable one, and Mullick continued to work with the ZSL for a number of years. Thompson was partly responsible for maintaining this correspondence, acting as an intermediary for both the ZSL and Mullick. His role as a zookeeper created additional connections with suppliers and buyers to exploit new markets,

¹⁰⁸ P. L. Sclater, 'Announcement', *PZS* (1864), p. 373; Undated List of Objectives – Addressed to Thompson, ZSLA, GB 0814 BADT, James Thompson Papers.

¹⁰⁹ The most noticeable fatalities were the cranes from Akyab. Nearly all of them had died before reaching Madras. See, ZSLA, CMM, 19 October 1864.

¹¹⁰ Rajendra Mullick to P. L. Sclater, 9 April 1864, ZSLA, GB 0814 BADM, Rajendra Mullick Papers.

highlighting how keepers, as ambassadors of the Society, facilitated networks and interactions outside the gardens space.¹¹¹ Of course, Thompson was not the only keeper to be sent abroad, but no subsequent keeper's expedition would be as extensive as those conducted in India; the task of collecting animals from overseas was still an important undertaking.¹¹² Keepers relied on perceptive judgement and decisive inclinations when choosing which animals to acquire and which to leave behind, a decision that could impact the menagerie's composition for years to come.

In drawing these collective duties together, however, there is a particularly interesting aspect that is all but forgotten in the surviving material concerning Thompson's 1863-4 expedition. In a relatively obscure handwritten letter to the secretary, Thompson provided a brief account of his expenditure. His ticket, and that of his 'European assistant', were included in the freight charges, but in a bracketed afternote, he stated, 'no natives were engaged'.¹¹³ For Thompson, this was probably an afterthought, a spur of the moment addition, but the inference denotes a particularly significant point: local porters and labourers were typically employed during these overseas expeditions. Described as part of the shipping costs, the handlers were consigned to a separate category, and in the truest sense transformed into invisible technicians. Therefore, the final section will explore the role of the foreign handlers who accompanied animals to the Zoological Society gardens.

¹¹¹ For his efforts in 1857, Thompson was called 'an agent sent out for that purpose to Calcutta' in the *Illustrated London News*, an apt description that draws parallels to the 'Banksian agents in the service of empire' John Gascoigne & N. Tranter discuss. See, 'New Indian Pheasants', *ILN*, 6 June 1863, p. 621; J. Gascoigne, *Science in the Service of Empire: Joseph Banks, the British State and Use of Science in the Age of Revolution* (Cambridge: CUP, 1998), p. 111. Also see, F. M. Turner, 'Public Science in Britain, 1880-1919', *Isis*, Vol. 71, No. 4 (December, 1980), pp. 589-608.

¹¹² Clarence Bartlett visited India to collect the second pair of gayals in 1868 (see fn. 106), and again with the Prince of Wales' subcontinent tour in 1875-6. He collected 'valuable animals from corresponding members' including, Rajendra Mullick, Mr A. Grote, Dr. John Anderson amongst 'other friends in the East'. See, ZSLA, RoC (London: Taylor & Francis, 1868), p. 21. Expeditions were also carried out to the Falkland Islands, southern Africa, Aden, and Egypt, predominantly spanning Britain's colonial territories. For information on these expeditions, see for Falkland Island Expedition 1867-68: ZSLA, CMM, 5 June 1867; RoC (1869), pp. 20-21; W. Blunt, *Ark in the Park*, pp. 201-203. Southern Africa 1897: ZSLA, CMM, 19 May 1897, 16 August 1899. For Aden 1899 and 1902, ZSLA, CMM, 16 August 1899, 21 May 1902, July 16 1902, 16 December 1903. For Egypt 1902: ZSLA, CMM, 12 May 1902; ZSLA, CMM, 16 July 1902; ZSLA, CMM, 16 December 1903.

¹¹³ J. Thompson to P. L. Sclater, April 20 1864, ZSLA, GB 0814 BADT, James Thompson Papers.

'An obscured individual, perfectly unknown to fame': Hamet the hippopotamus handler

In contrast to the European keepers, it was quite uncommon for foreign handlers to visit the gardens of the Zoological Society of London. Unlike the labourers Thompson chose not to engage – individuals temporarily hired for procurement purposes – it was only on rare occasions that foreign attendants were intentionally employed by the Society, accompanying specific animals to the gardens or acting as general attendants to larger collections. After a brief stay in the gardens, these individuals would usually return to their place of origin, typically receiving a stipend from the Society for their services. As Angela Thompsell has noted regarding African hunting, 'we still know comparatively little about how [African] men manipulated their roles as guides and porters in order to maximise their employment and lifestyle opportunities'.¹¹⁴ In a similar way, there is a lack of literature on how non-European animal handlers interacted with and influenced the course of live animal collecting practises at the ZSL, or how their presence impacted zookeeping cultures in zoological gardens more broadly.

The earliest known instance of foreign attendants visiting the ZSL gardens was in 1836, when the Society acquired four giraffes from northern Africa. As part of the entourage, four foreign handlers – one Maltese and three Nubian/Sudanese Arab attendants – accompanied the giraffes to England, along with George Thibaut, a French trader living in Cairo who helped lead the procurement.¹¹⁵ It was not the first time foreign animal attendants had visited England, but in many ways their attendance at the ZSL mirrored the arrival of the first ever giraffe to Britain in 1828, which was presented to George IV. At least two Nubian attendants had accompanied that specimen and were depicted in a number of portraits and illustrations. The arrival of the four giraffes at the ZSL, on the other hand, marked the first albeit restricted public display of the species in England. The handlers: Cabas, Omar, and Abdallah, were all portrayed in a similar fashion to the king's giraffe attendants, nearly always featuring in relation

¹¹⁴ A. Thompsell, *Hunting Africa: British Sport, African Knowledge and the Nature of Empire* (London: Palgrave MacMillan, 2015), p. 43.

¹¹⁵ For a full account of the giraffes' procurement process see, T. Ito, *London Zoo and the Victorians,* pp. 53-80.

to the giraffes.¹¹⁶ The exoticism of the giraffes was, in part, attributed to the three Nubian handlers and the expedition leader, who were all depicted in traditional Egyptian clothing, the latter signifying his 'western ability' to evade oriental detection.¹¹⁷

To onlookers, the four handlers were part of the wider spectacle. Their appearance added to the allure of the scene, which as one anonymous author wrote, 'the appearance of M. Thibaut and the Nubian attendants is very picturesque'.¹¹⁸ Although the handlers were never explicitly described as 'savage', they were set apart from the visitors and other keepers in the gardens. The attention directed towards them showed that 'the public fascination with the giraffes stemmed, in part, from an interest in [the handler's] homeland... visitors could stare, point, and comment at will as they gazed at men whom they saw as both exotic and culturally backward'.¹¹⁹ The *Penny Magazine* even suggested the four giraffes ushered in a new 'era in the annals of natural history', bringing in throngs of spectators to view both the giraffes and their 'exotic' attendants.¹²⁰

The arrival of the four giraffes signified an important transition in the process of procuring animals from North Africa to London Zoo, coinciding with the entrenchment of Mehmed (Muhammad) Ali's rule over Egypt (1805-48). It was a period marked with political crises as Egypt sought to break away from Ottoman control, officially conceding in late 1840. Around the time of this juncture, Mehmed Ali suffered a series of defeats against a coalition of Ottoman, Austrian, British, and French troops, subsequently agreeing to reduce his territories and forces, 'provided that he and his descendants were thereafter assured of hereditary rule over Egypt and the Sudan'.¹²¹ A ten-year truce prevailed, which paved the way

¹¹⁶ In 1828 Pasha Muhammad Ali of Egypt presented a giraffe to King George IV, as well as another two others to King Charles X of France and Francis I of Austria. In all three cases, at least two Nubian keepers were present with each animal. An oil canvas portrait entitled, 'Portrait presume de Hassan, gardien de la giraffe offerte a charles X, roi de France de 1824 a 1830' [Presumed portrait of Hassan, keeper of the giraffe given to King Charles X (reigned 1824-1830)] by Claude-Marie Dubufe is, at time of writing, on display in Musée du Louvre, Paris. See, Achat, 2017 R-F. 2017-9.

¹¹⁷ C. W. J. Withers, 'Disguise – Trust and Truth in Travel Writing', *Terrae Incognitae*, Vol. 53, No. 1 (2021), pp. 48-64 (p. 50).

¹¹⁸ Anon., *Popular Description and History of the Giraffe* (London: 1836), pp. 14-15.

¹¹⁹ A. Thompsell, 'G is for GIRAFFE', in *Animalia: An Anti-Bestiary for Our Times*, ed. A. Burton & R. Mawani (Durham, NC: Duke University Press, 2020), pp. 71-78 (pp. 74-5).

¹²⁰ Penny Magazine, 18 June 1836, p. 231. T. Ito, London Zoo and the Victorians, pp. 67-68. ¹²¹ G. Crouzet, Inventing the Middle East: Britain and the Persian Gulf in the Age of Global

Imperialism (Montreal: McGill-Queen's University Press, 2022), p. 88; J. Parry, Promised Lands:

for improved relations with the Ottoman sultan and European powers and formed part of a much larger geopolitical opening of the African savannah.¹²² As a result, Mehmed Ali and the subsequent Pashas of Egypt increasingly sought to present animals as gifts to European powers in a bid to improve their diplomatic ties. It was through these evolving interactions that new kinds of animal procuring networks emerged, beginning the process in which the ZSL planned to acquire its first living hippopotamus in 1850.

The prospect of acquiring a hippopotamus had been a long-term ambition for the Zoological Society, and amidst the diplomatic progress between the Egyptian Pashas and the British government, the idea of procuring a specimen greatly increased.¹²³ The 'middle decades' of the pashas' rule, a period that included the reigns of Abbas I (1849-54) and Sa'id (1854-63), overlapped with David Mitchell's secretaryship, whom, through his new management style and starring policy, was determined to acquire a hippopotamus for the Zoological Society.¹²⁴ In 1847, an expedition was planned to capture a hippopotamus but was quickly abandoned when a guide could not be found.¹²⁵ Nevertheless, broadening the Society's prospects, an attempt was also made in Dahomey, West Africa, that same year. Writing to King Ghezo, Mitchell requested that any animals found in his kingdom that were brought to England, including hippopotamuses, could be exchanged for a selection of quality English horses.¹²⁶ Mitchell reasoned:

The people of England come in great numbers to the gardens to learn the names, the appearance, and the use of the animals of foreign countries with which we have communication both as a matter of commerce, and of science, for we believe it to be good to know all the wonderful works of God.¹²⁷

The British and the Ottoman Middle East (Princeton: Princeton University Press, 2022), pp. 174-205.

¹²² K. Fahmy, 'The Era of Muhammad 'Ali Pasha, 1805-1848', in *The Cambridge History of Egypt, Volume 2: Modern Egypt, from 1517 to the End of the Twentieth Century*, ed. M. W. Daly (Cambridge: CUP, 2008), pp. 139-179 (p. 176).

¹²³ J. Simons, *Obaysch: A Hippopotamus in Victorian London* (Sydney: Sydney University Press, 2019), pp. 34-35; K. Fahmy, 'The Era of Muhammad 'Ali Pasha, 1805-1848', p. 176.

¹²⁴ A. Mikhail, *The Animal in Ottoman Egypt* (Oxford: OUP, 2017), pp. 140-141.

¹²⁵ J. Simons, *Obaysch: A Hippopotamus in Victorian London*, p. 36.

¹²⁶ 'Petition to the King of Dahomey from David W. Mitchell on Behalf of the Zoological Society of London to Send Zoological Specimens, e.g. Hippopotamus, and Offering Gift of Pea-Fowl', LMA, ACC/1742/001/01.

¹²⁷ 'Petition to the King of Dahomey from David W. Mitchell', LMA, ACC/1742/001/01.

Apart from reinforcing the precursory three Cs of European imperialism – commerce, Christianity, and civilisation – the tone of the letter encapsulated the Society's determination to acquire a hippopotamus.¹²⁸ However, like the previous expedition, nothing came to fruition. So when Charles Murray, the British consulgeneral in Cairo, asked how much the ZSL would be willing to pay for a live hippopotamus in December 1848, Mitchell and the council eagerly jumped at the opportunity.¹²⁹ It was a fortuitous moment, as the government in Egypt was in flux following the death of Ibrahim Pasha (March-November 1848).¹³⁰ Importantly, the request coincided with the personal interests of Abbas I, who, having acceded the throne, helped create a 'diplomatic space within which it was possible to agree to the capture and exportation' of a hippopotamus to London.¹³¹ In essence, the hippopotamus became part of a deal that was 'partly international relations, partly the mutual projection of soft power, and partly a bribe'.¹³²

In March 1849, Murray hired a group of hunters to track down a hippopotamus, but, in a report to the ZSL council, inferred he would be unable to capture one for less than £2000. This was too high a price for the council, so Mitchell enquired whether the Egyptian authorities would be willing to obtain one for a lower amount, including any shipment costs incurred.¹³³ By June, Murray responded that he had 'great pride and pleasure, namely a hippopotamus, to be obtained by means of the Pasha's influence without payment of the £1000 offered to the hunters'.¹³⁴ With the orders now in transit, ten Nubian hunters and a lieutenant were sent upriver, tracking a mother and calf on to a small island off

¹²⁸ For the philosophy underpinning the 'white man's burden' and the three Cs of European imperialism see, B. Stanley, "Commerce and Christianity': Providence Theory, The Missionary Movement, and the Imperialism of Free Trade, 1842-1860', *The Historical Journal*, Vol. 26, No. 1 (1983), pp. 71-94; John Duncan to Benjamin Hawes - Forwarded by Grey to Palmerston, 17 Aug 1846, CO 96/10. Also see, M. Lynn, 'Consul and Kings: British Policy, "the Man on the Spot", and the Seizure of Lagos, 1851', *JICH*, Vol. 10, No. 2 (1982), pp. 150-167 (pp. 151-153).

¹²⁹ C. A. Murray to D. W. Mitchell, 4 December 1848, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers.

¹³⁰ J. Simons, *Obaysch: A Hippopotamus in Victorian London*, p. 36.

¹³¹ Ibid., pp. 37-38.

¹³² J. Simons, 'The Soft Power of Elephants', in *The Routledge Handbook of Soft Power*, eds. N. Chitty, L. Ji, G. Rawnsley and C. Hayden (London: Routledge, 2017), pp. 177–184; J. Simons, *Obaysch: A Hippopotamus in Victorian* London, p. 38.

¹³³ C. A. Murray to D. W. Mitchell, 5 March 1849, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers.

¹³⁴ C. A. Murray to D. W. Mitchell, 2 June 1847, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers.

the Nile basin in early August.¹³⁵ They effected the capture on the island of Obaysch, 'where the baby hippopotamus was hiding'; he was later transported downriver to Cairo.¹³⁶ Once there, the aptly named hippopotamus, Obaysch, was deposited in Murray's courtyard, where he stayed for the next six months whilst transport to England was organised. It was here that 'a dark-skinned Nubian', namely Hamet Safi Cannana, was introduced to Obaysch.¹³⁷

From fragmented accounts, it appears that Hamet Safi Cannana had worked with Murray for a number of years prior to Obaysch's capture, and, according to Henry Northrop writing some forty years later, Hamet was first employed by the consul-general for his well-known experience in managing wild animals.¹³⁸ Hamet's name first appeared several months before Obaysch's capture, in a letter concerning a shipment of animals amassed by Ibrahim Pasha for the ZSL.¹³⁹ If the shipment was to go ahead, Murray wrote, he would have to find another 'respectable Arab assistant' to translate for Henry Hunt if Hamet did not return from his assignment to London.¹⁴⁰ The letter was in reference to a collection the Pasha had amassed in late 1848, but it implied that Hamet was already in England and upon returning to Egypt would accompany the second collection (the one mentioned in the letter) to the gardens as well; clearly he was already an important mediator in Murray's dealings with the ZSL.¹⁴¹ He was also bilingual, or at least satisfactorily fluent, acting as a translator for Hunt who was also despatched to Cairo to help bring the second collection to Britain.¹⁴² This may explain why Hamet was chosen to be Obaysch's primary handler, as his skills extended beyond the management of animals.¹⁴³ Although Hamet may

¹⁴¹ RoC (1849), p. 18.

¹³⁵ J. Simons, Obaysch: A Hippopotamus in Victorian London, p. 42.

¹³⁶ H. Maxwell, *The Honourable Charles Murray KCB: A Memoir* (Edinburgh: W. Blackwood, 1898), p. 243.

¹³⁷ H. D. Northrop, *Earth, Sea and Sky: Or the Marvels of the Universe* (New Brunswick: R. A. H. Morrow, 1887), p. 242.

¹³⁸ H. D. Northrop, *Earth, Sea and Sky*, pp. 242-243.

¹³⁹ C. A. Murray to D. W. Mitchell, 6 May 1849, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers; ZSLA, CMM, 6 September 1848.

¹⁴⁰ Hamet also spoke good English according to other reports. See 'Arrival of the Hippopotamus', 2 June 1850, *Lloyd's Weekly Newspaper*, p. 12; C. A. Murray to D. W. Mitchell, 6 May 1849, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers.

¹⁴² RoC (1850), p. 14.

¹⁴³ The Council reported that Henry Hunt brought the collection to England in late June 1849. All animals arrived safely, except one antelope and two flamingos - the antelope was lost through the carelessness of 'the Pasha's man' who allowed it to get into the Nile whilst disembarking at Alexandria, whereas the flamingos deaths were attributed to the treatment they had received

have visited England multiple times before Obaysch's procurement, the records suggest he definitely visited Britain twice, and was at least introduced to some of the keepers at the ZSL; David Mitchell later called him 'the familiar Arab'.¹⁴⁴ Nevertheless, at some point prior to Obaysch's arrival in Cairo in November 1849, Hamet returned to Egypt and found himself attached to 'the warm affections of Obaysch', which Murray summarised:

[The hippopotamus was] quite well, and the delight of everyone who sees him. He is tame and playful as a Newfoundland puppy; knows his keepers, and follows them all over the courtyard; in short, if he continues gentle and intelligent as he promises to be, he will be the most attractive object ever seen in our Garden, and may be taught all the tricks usually performed by the elephant.¹⁴⁵

These anthropomorphic attachments, according to Murray, were established during the winter months, and become a reoccurring theme once Hamet and Obaysch arrived in the gardens. The bond of 'considerable affection' would continue to harangue Hamet, even after he returned to Egypt.¹⁴⁶ But until then, Hamet remained one of the many attendants who cared for Obaysch, ensuring the hippopotamus survived the winter months in Cairo.

Preparations for Obaysch's departure began in April 1850, and a month later, Murray had finalised arrangements with the Peninsular and Oriental Steamer Company. This included the construction of a 400-gallon tank on the steamship *Ripon*, enabling Obaysch to bathe during the journey. Once onboard, Obaysch could then wade in the pool, sometimes spending up to three-quarters of an hour in the water. Throughout the journey, Hamet remained close at hand, and, according to newspaper reports, he would sit on a high stool in the corner of the den using a small stick to poke the beast and make him do his bidding.¹⁴⁷ He slept in a hammock next to the water tank and would extend 'one arm over the side so as to touch him' in reassurance.¹⁴⁸ He was regularly woken up by the

before Hunt took possession. It is possible that 'the Pasha's man' was Hamet. See, ZSLA, CMM, 4 July 1849.

¹⁴⁴ 'Secretary's Reports 1851-54', ZSLA, GB 0814 GAAB.

¹⁴⁵ C. A. Murray to D. W. Mitchell, 21 November 1849, ZSLA, GB 0814 BADM, Charles Adolphus Murray Papers. Also see, H. D. Northrop, *Earth, Sea and Sky*, pp. 242-243; J. Simons, *Obaysch: A Hippopotamus in Victorian London*, p. 46.

¹⁴⁶ Haney's Art of Training Animals: A Practical Guide for Amateur or Professional Trainers (New York: J. Hanley, 1869), p. 144.

 ¹⁴⁷ 'Arrival of the Hippopotamus', 2 June 1850, *Lloyd's Weekly Newspaper*, p. 12.
 ¹⁴⁸ 'Anecdote of Obaysch, the Hippopotamus of the Zoological Gardens', *Second Sheet of the Hereford Times*, 15th December 1860, p. 12.

sensation of a jerk and a hoist by his 'compagnon du voyage'.¹⁴⁹ In the weekly magazine, Household Words, Charles Dickens even remarked that during the voyage 'our fat friend attached himself yet more strongly to his attendant and interpreter, Hamet; indeed, the devotion to his person which this assiduous and thoughtful person had manifested from his first promotion to the office, had been of a kind to secure such a result from any one at all accessible to kindly affections'.¹⁵⁰ All attempts to separate Obaysch from Hamet were quickly abandoned, as the hippopotamus became irritated if left unaccompanied. He would supposedly run 'through octaves of cries from the most plaintive to the most violent'.¹⁵¹ 'The beast appear[ed] uneasy when the Arab [was] away', so Hamet slept alongside Obaysch and reassured the 'tractable and affectionate nature of this animal'.¹⁵² As the stories show, Hamet was gradually becoming part of Obaysch's narrative, placing him within the same remit as the animal. Indeed, the act of reassuring the hippopotamus - anthropomorphically presuming the animal's emotions – as well as tending to its everyday needs, fixed Hamet to the events of hippomania. To the public, these connotations were essential to the hippopotamus' fame, and only grew stronger when they arrived in England.¹⁵³

Wild animals encapsulate certain issues that are metaphorically associated with certain humans, which as Louise Robbin has argued, is especially true for 'those that seemed to share their subordinate, dependent status: servants, slaves, peasants, indigenous peoples, and women'.¹⁵⁴ Like museum objects, wild animals trigger thoughts and connections of foreign lands that are 'explicit or implicit vehicles for commentary on issues such as colonialism, the nature of authority, and gender relations'.¹⁵⁵ Here, the same implications can apply to

¹⁴⁹ Haney's Art of Training Animals: A Practical Guide for Amateur or Professional Trainers, p. 144.

¹⁵⁰ C. Dickens, 'The Hippopotamus', *Household Words: A Weekly Journal – Vol. 1 March-September 1850* (London: Bradley & Evans, 1850), pp. 445-449 (p. 448).

¹⁵¹ Haney's Art of Training Animals: A Practical Guide for Amateur or Professional Trainers, p. 144.

¹⁵² 'Arrival of the Hippopotamus', 2 June, 1850, *Lloyd's Weekly Newspaper*, p. 12; 'Peter Parley's Monthly Visit to the Zoological Gardens', c. 1850, Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA.

¹⁵³ A. J. P. Flack, "The Illustrious Stranger": Hippomania and the Nature of the Exotic', *Anthrozoös*, Vol. 26. No. 1 (2013), pp. 43-59, (p. 44).

¹⁵⁴ L. E. Robbins, *Elephant Slaves and Pampered Parrots: Exotic Animals in Eighteenth-Century Paris* (Baltimore: JHUP, 2002), p. 19.

¹⁵⁵ L. E. Robbins, *Elephant Slaves and Pampered Parrots*, p. 19. See also M. A. Osborne, *Nature, the Exotic, and the Science of French Colonialism* (Bloomington: Indiana University Press, 1994).

Obaysch *and* Hamet. Alongside Obaysch, Hamet's presence added to the public's perception of their collective subordination. Viewed in relation to his charge, Hamet encapsulated the metaphorical and literal association of racial subordination, not just between himself and the public, but also through his interactions with the hippopotamus. The journey from Southampton epitomised that association. The train stopped at nearly every station, drawing large crowds eager to get a look at the hippopotamus. However, 'they only saw the Arab keeper, who then attended him night and day, and for want of air, was constrained to put his head through the roof'.¹⁵⁶ As trivial as it may seem, Hamet became the focal point when Obaysch remained concealed. He became an equal part of the spectacle, thereby augmenting his foreignness whilst appropriating the otherness of the hippopotamus. Even when they arrived at the gardens, Richard Owen observed their companionship, stating:

[the hippopotamus] was lying on its side...with its head resting against the chair on which its swarthy attendant sat...[it] leered at its keeper... the hippopotamus arose, and walked slowly about its room, and then uttered a loud and short harsh snort...ending with an explosive sound like a bark. The keeper understood the language, and told us the animal was expressing its desire to return to the bath.¹⁵⁷

Initially employed as Hunt's translator, Hamet was now Obaysch's human mediator, supposedly understanding the hippopotamus in ways the Europeans could not.¹⁵⁸ The camaraderie between Hamet and his charge became an essential part of the hippopotamus' appeal, creating visible connotations of otherness that were interchangeably channelled through and attached to Hamet.

Hamet's 'otherness' featured frequently in the newspapers once he and Obaysch arrived at the zoo. The day after the hippopotamus was presented to the public, the frontpage illustration in the *Illustrated London News* depicted Hamet sitting next to Obaysch [figure 12].¹⁵⁹ Hamet was only referred to as the 'Arab attendant', and the image drew on their collective otherness, portraying the former in equal measure to the latter. Similarly, when the new hippopotamus

¹⁵⁷ W. Blunt, *The Ark in the Park*, p. 110.

¹⁵⁶ J. Simons, Obaysch: A Hippopotamus in Victorian London, p. 55.

¹⁵⁸ See, 'The Diary of the Hippopotamus', *Punch, Or the London Charivari*, Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA.

¹⁵⁹ 'The Hippopotamus in the Gardens of the Zoological Society, Regent's Park', *ILN*, 1 June 1850, Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA.

house was opened in June 1851, the *Illustrated London News* again chose to portray Hamet alongside Obaysch.¹⁶⁰ Interestingly, the angle of the image is taken inside the enclosure, with Obaysch almost completely submerged in the water. Hamet, on the other hand, is very clearly portrayed, standing in the enclosure and dressed in an 'eastern fashion' [figure 13]. The image and others like it emphasised his otherness by separating him from the visitors, further reinforcing his role within the exhibition setting. Indeed, the latter image was produced when the Great Exhibition was held in Hyde Park, doubling the average number of admissions to the gardens. In that year Obaysch and Hamet were centre-stage to approximately 667,243 visitors that year.

The images articulate the same narrative and sentiment, embodying an ideological mindset that formed an insidious story of racism and dehumanised othering. They contain 'critical messages for British spectators about their own place within the hierarchy of races and civilisation', positioning Hamet's non-white body alongside the hippopotamus' to emphasise their congenial yet exotic differences.¹⁶¹ The depictions were more than illustrative techniques, as similar references were made in the ZSL guidebooks too; 'generally [Obaysch] is to be found lazily reposing on the side of the pool... a negro will be found in attendance upon him, and it seems that a mutual attachment subsist between this interesting pair'.¹⁶² As part of that 'interesting pair', Hamet was presented as part of the hippopotamus. The construction of Hamet's identity underscored a process of spectacularisation, demonstrating how anthro-zoological exhibitions affected the way thousands of visitors to the zoo viewed the world. It shows that unlike the other 'white' keepers, perceptions of Hamet and his role were designed to be

¹⁶⁰ 'The Hippopotamus in his new bath in the Zoological Society's Gardens, Regent's Park', ZSLA, GB 0814 GACP.

¹⁶¹ N. Durbach, 'London, Capital of Exotic Exhibitions from 1830 to 1860', in *Human Zoos: Science and Spectacle in the Age of Colonial Empires*, ed. P. Blanchard & Others, trans. T. Bridgeman (Liverpool: LUP, 2008), pp. 81-94 (p. 82)

¹⁶² D. W. Mitchell, *A Popular Guide to the Gardens of the Zoological Society of London* (London: Zoological Society, 1852), p. 31.



Figure 12. 'The Hippopotamus, in the Gardens of the Zoological Society Regent's Park', *Illustrated London News*, 1 June 1851, Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867', *ZSLA*, GB 0814 HCAA.

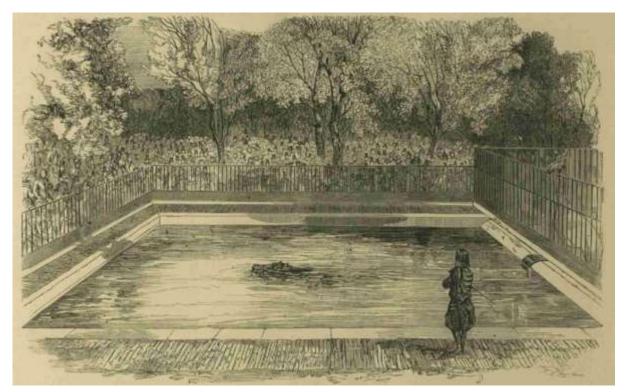


Figure 13. 'The Hippopotamus' New House', *Illustrated London News*, 14 June 1851.

different, particularly through his placement within the enclosure aesthetic. It was an ideological portrayal of the 'subordinate Arab'.¹⁶³

It did not take long for the fickleness of the crowd to take over, however, and visitors eventually lost interest in the hippopotamus' novelty. New animals were purchased, and in 1852, the Society exhibited a female elephant and its calf. The transition featured in Punch, depicting a baby elephant dressed in human clothing surrounded by curious children and parents. On the other side of the image, Hamet is shown sitting next to Obaysch.¹⁶⁴ A speech balloon above Hamet remarks, in a racist pseudo-African accent: 'Nebber mind den! Him shall be lubly'potamus – For all um great ugly elfint'.¹⁶⁵ The satirical work implied the zoo's audience quickly lost interest in old attractions as new animals took to fame. Yet despite the shift, Hamet continued to work for the Society until December 1852, when he returned to Egypt, receiving £68 for his services to the Society.¹⁶⁶ It marked the formal end of Hamet's employment with the ZSL, but it did not take long for his name to reappear in the process of animal acquisitions. In 1854, Hamet was mentioned in relation to a female hippopotamus required by the new British consul, Frederick Wright-Bruce. Reminiscent of Murray's first letter that mentioned Hamet, Wright-Bruce explained that Hamet had not yet returned from Nubia to accompany the animal to England, so instead, Mohammed Adu Nescian (Abou Merwan) would be employed.¹⁶⁷

¹⁶³ P. Blanchard & Others, 'Human Zoos: The Greatest Exotic Shows in the West', in *Human Zoos: Science and Spectacle in the Age of Colonial Empires*, ed. P. Blanchard & Others, trans. T. Bridgeman (Liverpool: LUP, 2008), pp. 1-49. Also see, E. W. Said, 'Arabs, Islam and the Dogmas of the West', *New York Times*, 31 October 1976, p. 4; E. W. Said, Orientalism (London, Penguin Books, 2003), p. 3; E. W. Said, 'Orientalism reconsidered', *Cultural Critique*, Vol. 1 (1985), pp. 89–107 (p. 89); D. M. Varisco, *Reading Orientalism Said and the Unsaid* (Seattle: University of Washington Press, 2012), p. 181; T. Michael, *Black German: An Afro-German Life in the Twentieth Century*, trans. E. Rosenhaft (Liverpool: LUP, 2017), p. 24.

¹⁶⁴ 'The Nose of the Hippopotamus Put Out of Joint by The Young Elephant', *Punch, or the London Charivari*, Vol. 20, 10 May 1851, p. 92.

¹⁶⁵ T. Ito, London Zoo and the Victorians, p. 122.

¹⁶⁶ Letter by D. Mitchell, 13 November 1852; Letters by Hamet Saffi Canaana, 3 November 1852, 1 December 1852, ZSLA, GB 0814 BADC, Hamet Saffi Canaana Papers.

¹⁶⁷ According to Wright-Bruce, Mohammed Adu Nescian was well 'acquainted with the food and habits of the animals'. F. A. Wright-Bruce to D. Mitchell, 24 May 1854, ZSLA, GB 0814 BADB, Frederick Adolphus Wright-Bruce Papers. The plan to acquire a female hippopotamus was first raised by Murray in 1849, inferring the pasha had promised 'to endeavour to procure a female [hippopotamus] for us during the next autumn'. Originally, Hamet was to travel back to Egypt and collect "Mrs Hippo' and bring her safely through the first winter in England'. However, this was later abandoned when it was discovered the hippopotamus was in fact a male. See, Letters by C. Murray to D. Mitchell, 3 April 1850, 1 September 1850, 30 December 1852, ZSLA, GB 0814 BADM, Charles Murray Papers.

This was more than a mere coincidence. Mohammed had accompanied Hamet to the gardens with Obaysch, having been the assistant snake charmer to Jabar Abou Maijab, who also visited the gardens in May 1850. Both men had travelled to Britain with Hamet, possibly as his assistants, and were charged with the upkeep of the reptiles donated by the Pasha. Like Hamet, they had arrived on the Ripon, and performed snake-charming acts in the gardens for three months before returning to Egypt on 20th August 1850.¹⁶⁸ Though the hippopotamus 'completely monopolized the public interest', the impressive collection of reptiles also drew an appreciative crowd.¹⁶⁹ It was not only their appearance but also their aberrant conduct with the snakes that was taken as representative of the Arab world. Hamet even acted as interpreter for Jabar when quizzed by onlookers, highlighting 'the significance of having transported the men to London where they could be reliably witnessed and interrogated (like the animals themselves)'.¹⁷⁰ Thus, when Mohammed accompanied the female hippopotamus to the gardens in August 1854, and like Hamet before him, his 'boyish portrait' was pictured in the newspapers with equal oriental flare [figure **14**].¹⁷¹

The representation of these men was both a product of and contribution to a 'theatrical East', which was widely disseminated throughout British culture. However, it must be noted that whilst their personas were constructed in the press, they also possessed demonstrable agency of their own, impressing audiences as highly skilled performers and experienced animal attendants. Onlookers were astonished by their composure, 'including all classes, from the

¹⁶⁸ They received £21 gratuity for their services. The council minutes also suggest another foreign attendant travelled with the group, Sadi Ombark Benby, and was given £10 for his 'attendance as interpreter' from June till September 1850. See, ZSLA, CMM, 18 September 1850.

¹⁶⁹ *The Times*, 12 June 1850. Quoted in, J. R. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', p. 347.

¹⁷⁰ J. R. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', p. 349.

¹⁷¹ 'The Female Hippopotamus in the Zoological Society's Gardens, Regent's Park', *ILN*, 12 August 1854, p. 129.



Figure 14. 'The Female Hippopotamus at the Zoological Society's Gardens, Regent's Park', *Illustrated London News,* 12 August 1854, p. 129, Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA.

titled lady to the pretty shop girl, the country bumpkin with his mouth wide open, and the London man who has jostled so effectually with the world'.¹⁷² They facilitated certain revelations about the animals they tended, something the animals could not achieve alone. Moreover, they were not the last foreign handlers to visit the gardens. In 1876, at least four mahouts arrived with the Prince of Wales' collection, while a troupe of Burmese priests attended an Asian elephant in 1884 (see Chapter III). These exchanges were a reflection of the particular nature of display in the Zoological Society's gardens, showcasing how human/non-human relations, perceptions, and interactions were often juxtaposed.

The services of Hamet Safi Cannana, Jabar Abou Maijab, and Mohammed Adu Nescian offers an important insight into the presence of foreign attendants at the ZSL in the mid-nineteenth century. Their presence demonstrates the importance of their skills and expertise, which has nominally been omitted from conventional zoo histories. Recounting the events surrounding Obaysch the hippopotamus, it is possible to unpack why and in what ways Hamet was

¹⁷² 'Visits to the Zoological Gardens. No. II', *True Briton*, Vol. I (1851), p. 17.

relegated to the margins of historical invisibility. Yet, embedded within this animal's popular narrative, Hamet was present throughout, forming an essential role in the transportation and initial display of this zoological star. Although a figure in his own right, most of Hamet's historical footprint stemmed from his interactions with the animal he tended. Indeed, this was aptly summed up by Charles Dickens in the editorial *Household Words*, stating:

It appears that Mr Hamet Safi Cannana, the Arabian gentleman who acts as secretary to HRH (His Rolling Hulk) the hippopotamus, has been for some time reflecting that he is under great obligations to that distinguished creature. Mr Hamet Safi Cannana (who is remarkable for candour) has not hesitated to say that, but for his accidental public connexion with HRH, he Mr Cannana would no doubt have remained to the end of his days an obscured individual, perfectly unknown to fame, and possessing no sort of claim on the public attention. HRH having been the means of getting Mr Cannana's name into print on several occasions, and having afforded Mr Cannana various opportunities of plunging into the newspapers, Mr Cannana afforded himself under deep debt of gratitude to HRH requiring some public acknowledgement and return.¹⁷³

Would it be possible to write a comprehensible narrative of Hamet without Obaysch, possibly not. It is difficult to detach Hamet's historicity from Obaysch, but in equal measure, it is impossible to write a history of the hippopotamus without its keeper. What is remarkable about Hamet, then, is that part of his historical actuality can be traced through the animal. In some sense, without Obaysch's record, Hamet would in all probability have remained a relatively unheard-of individual, a truly invisible technician, who continued to work as an animal catcher in Egypt. Through the hippopotamus and the public's fascination with an 'eastern otherness', Hamet's story can be unpacked, detailing his occupation, activities, and duties as a handler who worked in the service of the Zoological Society of London.

Conclusion: observing the observer

When it came to maintaining the animal collection, keepers were always close at hand, and – despite their historical invisibility – were a vital part of the Society's overall image. Keepers continued to maintain the gardens' space, sustaining the

¹⁷³ C. Dickens, 'The "Good" Hippopotamus', *Household Words: A Weekly Journal – Vol. II September-March 1850-1851* (London: Bradley & Evans, 1850), p. 49.

animals and tending to their needs, and even disciplining the visitors if necessary. They were directed to retrieve donations from around the world, sometimes travelling vast distances to convey animals to the gardens. Their duties were taxing, yet no doubt rewarding, harbouring a certain amount of emotional attachment.¹⁷⁴ For some, their charges were more than wild animals, seeing them as pets, four-legged friends, or even substitutes for people. Of course, this rosetinted view risks glossing over how each animal was subject to different regimes of care and treatment in the gardens, changing from keeper to keeper and animal to animal. Mismanagement caused incidents whilst negligence could be fatal. Mortality rates were still high amongst captive animals – it was often cheaper to replace monkeys than to improve their management – and deliberate cruelty towards animals was common. The Society exhibited a lot of animals in a lot of different ways, to which keepers were largely responsible. By laying bare these discrepancies, especially at the cage level, the chapter has shown that the gardens were not as idyllic as the press or ZSL management had wished. On the contrary, it was a practical space with strenuous labours and a harsh reality of life and death. Yet, if adequately tended to, keepers could witness individual animals grow and develop personalities of their own in this multi-experiential space that was the zoological gardens. This was especially true for the more popular animals, enabling the public to interact with keepers and their charges alike as they developed their own admiration for the animals.

In the gardens, zookeeping involved a triad of participants: the zookeeper, the animals, and the audience. The animals were 'visually presented as living sculptures behind glass barriers [and metal cages, yet keepers] torn down the fourth wall'.¹⁷⁵ They interacted with the observers and observed as embodiments of both categories. Situated across this duality, keepers simultaneously reinforced the spectacle whilst actively performed in it. Expected to enter and leave the enclosures, they literally held the keys to their own ephemeral authority, managing a qualitative and quantitative form of care in the gardens' space. The immediacy of the keepers and their experiences were unforgettable for

¹⁷⁴ J. A. Serpell, 'Anthropomorphism and Anthropomorphic Selection – Beyond the "Cute Response", *Animals & Society*, Vol. 10, No. 4 (2002), pp. 437-454 (p. 445).

¹⁷⁵ J. R. Hall, 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', p. 348.

audiences, and in the physical limitations of the gardens – a condensed world within the metropolis – their duties further separated the zoo from the outside environment. Moving between these worlds, keepers moulded their own cultural identities as representatives of the Society, engaging with humans and animals alike as they exerted their power – or, in some cases, lack of it – over their charge. This enhanced a tangled nexus of symbolic, social, and cultural experiences through a variety of sensory encounters, kindling certain emotional responses in the gardens.

The captive animals played a vital part in this relationship, especially regarding the keepers' narrativity. In the documents and pictures that mentioned zookeepers, nearly all accounts related to the animals they cared. This should not undermine the innate subjecthood of the keepers, but, through the animals, they can help plug the historicity gaps between historical inattention to the keepers' and their status as invisible technicians. For Hamet, Obaysch features heavily in his material subjectivity. By discussing Hamet through the hippopotamus, this chapter has attempted to amalgamate the arguments that the subject can be narrativised through, by, and in relationship to animals.¹⁷⁶ Can the subaltern speak, or can the subaltern bark? Perhaps, to some degree, the human subaltern can speak through the animal's bark. Of course, this should not undermine the fact that keepers were still multifaceted individuals with quirks and eccentricities of their own, regardless of the animals they tended. Class, ethnicity, and sociospatial formations formed real and imaginary characterisations of these individuals. For foreign handlers, these formations were attached to racial stigmas and their 'advanced marginality', interchangeably perceiving them as humans, sub-humans, or simply animal-like dependants.¹⁷⁷

To return briefly to T136.3 (045) and the blank zookeepers mentioned at the start of the chapter. Although there are two keepers missing, it is important to note that there are still some keepers depicted in the scene, a quaint analogy that

¹⁷⁶ G. C. Spivak, 'Can the Subaltern Speak?', in *Colonial Discourse and Post-Colonial Theory: A Reader*, ed. P. Williams & L. Chrisman (New York: Columbia University Press, 1994), pp. 66-111; A. Skabelund, 'Can the Subaltern Bark? Imperialism, Civilization, and Canine Cultures in Nineteenth-Century Japan', in *JAPANimals: History and culture in Japan's Animal Life*, ed. G. M. Pflugfelder & B. L. Walker (Michigan: University of Michigan, 2005), pp. 195-243.
¹⁷⁷ L. Wacquant, 'Revisiting Territories of Relegation: Class, Ethnicity and State in the Making of

Advanced Marginality', Urban Studies, Vol. 53, Iss. 6 (2015), pp. 1077-1088.

not all has been forgotten regarding these individuals. In the middle portion of the image there is a keeper next to the camel. He is depicted with loose trousers, a beard and a turban – perhaps a nod to the foreign handlers who accompanied the giraffes to the Society in 1836 – and to the left, there is an elephant carrying visitors on its back. A keeper is depicted sitting behind its head, guiding the elephant around the gardens. As will be shown in the next chapter, physical interaction between animals and visitors was an important aesthetic in understanding certain species in the gardens, and, in the case of the elephant rides, it was an experience usually monitored by the zookeepers. It was one of the most interactive activities in the zoo, and thus the next chapter will proceed to explore the perceptions of the elephant(s) in the garden space.

Chapter III

'Walking in the Zoo is the O.K. Thing to Do': Gentle Souls with Brutish Outbursts and the Elephant(s) Experience at London Zoo 1865-1896

When Nandalala Dasa described the elephants he saw during his visit to

England in 1893, he remarked:

Of course the elephant was there also. This huge Pachyderm forms a necessary and much appreciated complement to the zoos in England and her colonies; and most of my readers have seen in Toy Books the pictures of English children joyously climbing on the back of elephants in the zoo, which they do, by means of ladders, so unlike the mode prevalent in our country. Once I saw five elephants in a street in London, a sight I have never seen in Calcutta, where elephants are forbidden by law to appear on the streets.¹

As a wealthy anglophone and member of the London Missionary Society, Dasa spent over a year travelling around Britain, and later Australasia, journeying more than 30,000 miles over the duration of his tour. Later publishing his experience, Dasa's memoirs were an important contribution to an emerging style of Indian travelogues at the end of the nineteenth century, providing a glimpse into an Indian's perspective of late Victorian Britain and an alternative view of imperial power.² Visiting various cities across England and Scotland, the account gave an impressionistic view of Britain, describing London as a place that dazzled with brilliance. It was a city that was filled with omnibuses and cabs, policemen, street vendors, and – quite surprisingly – elephants.

By the time Dasa had visited England, a great number of zoological gardens had emerged in Britain, and the spread of zoological gardens around the world had been so prolific that nearly every capital or major city could boast about having some form of institution.³ As large, charismatic mammals, elephants were

¹ N. L. Dasa, *Reminiscences, English and Australasian: Being an Account of a Visit to England, Australia, New Zealand, Tasmania, Ceylon* (Calcutta: M. C. Bhowmick, 1893), p. 96.

² S. Bhattacharji, 'Indian Travel Writing', in *The Routledge Companion to Travel Writing*, ed. C. Thompson, (Oxford: Routledge, 2015), pp. 125-138 (pp. 131-133); A. Ray, 'The Aesthetic Gaze: Siting Nineteenth Century Indian Travel Writing', *Rupkatha Journal on Interdisciplinary Studies in Humanities*, Vol. VIII, No. 4 (2016), pp. 122-129.

³ For more on the emergence of zoological gardens see, E. Baratay & E. Hardouin-Fugier, *Zoo: A History of Zoological Gardens in the West* (London: Reaktion Book, 2002), pp. 80-82; *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996); *Great Zoos of the World: Their Origins and Significance*, ed. S. Zuckerman (London: Weidenfeld & Nicolson, 1980); V. Kisling, *Zoo and*

a popular attraction in many of these establishments, eating buns from visitors' hands and supplying countless children with rides around the zoological gardens. For Dasa, elephants were a vivid reminder of his own upbringing, noting the difference in seeing elephants in the streets of London and Calcutta before going on to make a comparison with the Bristol Zoological Gardens, stating it was 'much smaller than our Zoo at Alipur'.⁴ Throughout the passage, Dasa referred to the gardens as a zoo, using the abbreviated term for a zoological garden, which, by the 1890s, had become a household word. The origin of this word, which dated back to the late 1860s, had been popularised by Alfred Lee and Hugh Willoughby Sweny in the English music hall song, 'Walking in the Zoo is the O.K. Thing to Do', which was the first and most successful act in Alfred Vance's bill, 'The Great Vance'.⁵ The song was fairly popular, possibly introducing the widespread use of the Americanism 'O.K.' and slang word 'skedaddle', as well as the abbreviation 'zoo' to the English vocabulary.⁶ The melody was pleasant and the lyrics described London Zoo as a tranquil space for the middle classes, portraying the gardens as a place to promenade and meet 'girls with golden tresses, girls with black hair too'.7 It was an urban Eden where respectable gentlemen and gentlewomen could congregate. The message was clear, going to the zoo was the O.K. thing to do.

The idea of walking in the zoo and Dasa's account of elephants in Britain draws on an intriguing parallelism beyond the mere use of this abbreviated word; a point relating directly to the status of elephants in captivity during this period. As Dasa informed his readers, elephants were allowed to walk unprohibited around the streets of London, whilst in the zoological gardens, riding on these animals was actively encouraged, permitting children to climb on their backs as they went around the gardens. The relative freedom of these animals, at least compared to the other animals in captivity, and their ability to leave the enclosure

Aquarium History: Ancient Animal Collections to Zoological Gardens (Boca Raton: CRC Press, 2001).

⁴ N. L. Dasa, *Reminiscences, English and Australasian*, p. 96.

⁵ 'Walking in the Zoo' Song Sheets - 19th Century, ZSLA, GB 0814 ZIA.

⁶ C. G. Leland, *Hans Breitmann in Politics: A Second Series of the Breitmann Ballads* (London: J. C. Hotten, 1869), p. 43. By the mid-1870s the phrase was also being used in Europe. See, E. Legge, 'A German 'Zoo'', *Belgravia: A London Magazine*, Vol. 3 (May, 1874), pp. 353-357 (p. 353).

⁷ 'Walking in the Zoo' Song Sheets - 19th Century, ZSLA, GB 0814 ZIA.

space, was seen as 'the O.K. thing to do', a practice and point of interaction that has not hitherto been explored in any real depth.

The purpose of this chapter is to investigate how elephants were perceived and encountered in London Zoo during the nineteenth century, thinking more about these animals beyond the confines of the enclosure space. How did the visitors come to interact with elephants in the ZSL gardens, and how did this effect perceptions and expectations of elephants more broadly? At least twentytwo elephants were housed in the zoological gardens between 1831 and 1903, with at least one exhibited at any given time, making them one of the most consistent animals to be displayed in the ZSL's history. Therefore, the chapter will focus on three elephants who lived in the zoo between 1865 and 1896 -Jumbo (1865-1882), Jung Perchad (1876-1896), and Taoung Taloung (1884) to investigate these interactions in more depth. Although these three elephants did not all live in the gardens at the same time, their lives crossed over in various ways, with at least two out of the three living in the gardens together. Jung Perchad witnessed both Jumbo and Taoung Taloung depart from the zoo, whilst Jumbo and Taoung Taloung were later acquainted in Phileas Taylor Barnum's American circus, 'The Greatest Show on Earth', where they were conveyed in 1882 and 1884, respectively. For contemporaries, these elephants were the most celebrated (and, in Taoung Taloung's case, most controversial) pachyderms in the gardens, leaving behind a substantial material footprint. As representatives of different species of elephant or rare additions to the menagerie – Jumbo was the first African elephant, Jung Perchad an Asian elephant gifted by the Prince of Wales, and Taoung Taloung a white Asian elephant from Burma – their lives were framed and appropriated in relation to their geographical distribution and human experience. This had a profound effect on the way people described, treated, and viewed these elephants, which will be discussed in the following sections.

To contextualise these interactions, the chapter will therefore begin with a short biographical account of the three elephants, detailing how and when they arrived in the gardens, the circumstances surrounding their time therein, and finally, how their departure left a mark on the zoo. This will be followed by a discussion of the broader historical discourse of elephants within historical animal studies, proposing an alternative means of studying the elephants at the zoo.

Until recently, historians have tended to write histories of animals as generic representatives of a given species or as isolated individuals – writing a history of 'elephants' in its widest sense, or a history of 'an elephant' – frequently framing their argument as a one-on-one relationship with humans. Forwarding an alternative approach, the chapter explores the interactions and comparisons *between* elephants in the gardens through an intra-species perspective, and how historians can use this 'herd mentality' to investigate other gregarious animals. Rather than advocating a multispecies perspective, an innovative approach Jonathan Saha has recently proposed, an intra-species standpoint can also help address the historicity of the individual/collective divide, as natural ecological perspectives are somewhat limited given the nature of captivity and the structural separatism of species in zoo architecture. Thus, like Saha, this approach is not primarily to make a contribution to critical animal studies, but to reconstruct a history through which a combination of conceptual lenses can be brought to the forefront.⁸

Using this analytical lens, the exceptional status of elephants in captivity and their capacity to leave the enclosure space can be explored, albeit via human stewardship. Most zoo animals were permanently kept in cages, but elephants (and camels) were permitted to walk about the gardens on a daily basis, providing children with rides and interacting with visitors in close proximity. This enabled visitors to engage with and get much closer to the elephants than other zoo animals, creating different kinds of encounters and experiences. Lastly, the chapter will consider how different elephant species were perceived in relation to race, empire, and anthropomorphic perspectives, particularly looking at the case of Taoung Taloung whose short stay at the ZSL was fraught with controversy. Asian elephants were described as docile and tame, whereas African elephants were considered volatile, untameable, and dangerous animals. These views tended to mirror general European attitudes towards animals in the wild, and colonised peoples alike. The debate over Taoung Taloung's 'whiteness', and the colour of his skin, demonstrates how aspects of racial ideologies fed into perceptions of certain elephants.

⁸ J. Saha, *Colonizing Animals: Interspecies Empire in Myanmar* (Cambridge: CUP, 2021), pp. 1-2.

The histories of elephants in captivity cannot and should not be read in complete isolation, as they were individual elephants shaped by collective experiences. In the wild, Asian and African elephants would never have met, but in the zoological gardens their individual histories were inextricably intertwined through their relationships with one another, whether real or imagined, and in relation to the garden's urban setting. The chapter will predominantly focus on the aforementioned elephants, however, reference to other elephants, such as Alice, Jingo, and Suffa Culli, will also be made; but first, a short biographical account of the three case studies.

Herd mentality: Elephants in relation to one another

Jumbo, an African bush elephant, was presented to the ZSL as part of an exchange with the Jardin des Plantes in 1865. Born in the Sudan around Christmas 1860, his life story has been retold numerous times by historians and is well documented.⁹ As the first African elephant ever to be displayed at the ZSL, Jumbo was an instant hit, and lived there for seventeen years. During this time, he grew to an immense size and quickly became a celebrity animal, eating buns from visitors' hands and giving children rides around the gardens. However, upon reaching maturity, he became very agitated, possibly as a result of *musth*, a hormonal surge in bull elephants characterised by aggressive behaviours, or possibly severe toothache brought about by a bad diet.¹⁰ Whatever the reason, Jumbo had a series of outbursts that caused a great amount of concern for the ZSL staff, especially the superintendent Abraham Dee Bartlett, who eventually deemed his behaviours to be too dangerous. In a bid to alleviate the problem, the Society opened negotiations with Phineas T. Barnum, the American showman, who purchased Jumbo in January 1882. The sale ignited a national controversy,

⁹ See, L. Harding, *Elephant Story: Jumbo and P. T. Barnum Under the Big Top* (Jefferson: McFarland, 2000); W. P. Jolly, *Jumbo* (London: Constable, 1976); S. Nance, *Animal Modernity: Jumbo the Elephant and the Human Dilemma* (London: Palgrave, 2015), pp. 1-39; P. Chambers, *Jumbo: This Being the True Story of the Greatest Elephant in the World* (London: Steerforth, 2009).

¹⁰ Musth, or must, is a periodic condition seen in both tuskers and tuskless adult bull elephants that is characterised by aggressive behaviour and a rise in reproductive hormones. The condition causes the animal to become restless and unpredictable, often becoming oversensitive to sounds and movements. In the wild the condition can last between two and three months, but in captivity the condition and duration can vary greatly.

sparking a period of 'Jumbomania' that engulfed the zoo for many months. Jumbo left the zoo in March 1882, spending the rest of his life in North America as an act in the Barnum and Bailey Circus. Tragically, on September 15th, 1885, whilst returning to a train carriage outside St. Thomas, Ontario, an unscheduled freight train hit Jumbo, killing him immediately. Despite the incident, Jumbo remained just as famous in death as in life, immortalised in memorabilia, stories, and statues; even inspiring elements of the animated 1941 Disney film *Dumbo*. Jumbo continued to be a celebrity animal, subject to the human gaze, to which we now owe his namesake and its lexical connotations.

Jung Perchad, on the other hand, was brought to London from India as part of the Prince of Wales' tour of the subcontinent in 1875-6. Presented as a gift by Jung Bahadur Kunwar Ranaji on 20th February 1876, Jung Perchad was deposited in London Zoo in May 1876. Transported to Bombay by train along with three other elephants, Jung Perchad was put on board a steamer bound for England. Jung Perchad and Suffa Culli, who were older and much larger, were put on board the Serapis, whilst Rostom and Omar were conveyed on the Osbourne. The steamers arrived at Portsmouth on 5th May 1876, where Rostom and Omar were transported to the zoo by train. Jung Perchad and Suffa Culli were walked. Accompanied by two Indian mahouts and a ZSL keeper, the pair stopped overnight at Godalming to break up the journey. Travelling approximately seventy miles over the course of two days, the two elephants reached the gardens at 4 o'clock in the morning. Like Jumbo, Jung Perchad was a popular attraction, although he would never be as famous as his African counterpart. He would give rides around the gardens, and after Jumbo departed, was said to 'do his best to fill Jumbo's place' as the child-omnibus.¹¹ Being a tuskless male, reputedly hard to manage, Jung Perchad was generally more tractable and wellbehaved than Jumbo, rarely exhibiting any kind of aggression towards his keepers or the public. He died suddenly in March 1896, having shown some signs of pain the day before. The cause of death was peritonitis: an inflammation on the lining of the stomach which had spread to his abdominal organs. Once his

¹¹ 'An Amateur Photographer in the Zoo', *The Graphic*, 5 September 1883, p. 271.

carcass had been dissected, the skin was sent to the Natural History Museum and his skeleton reconstructed by taxidermists.

Compared to Jumbo and Jung Perchad, however, Taoung Taloung's time at the zoo was comparatively short, residing in the gardens for just fifty-six days between January and March 1884. Deposited by Barnum, Taoung Taloung's stay was only a temporary measure, using the ZSL gardens as a stopping-off point before travelling on to America where he would join Jumbo in the circus. Having had so much success with Jumbo, Barnum had wanted to import a second sensational elephant, and, upon hearing about sacred white Asian elephants from Burma, he was determined to acquire one. Captured by Karen trackers on the border between Thailand and Burma, Taoung Taloung was purchased by Mr Gaylord, one of Barnum's agents, for \$250,000, following three years of negotiations with King Thebaw, who was reluctant to let one go. Roughly fifteen years old, Taoung Taloung was conveyed to England from Rangoon in 1883, under the charge of Charles White, on board the steamship Tenasserim. Housed in Jumbo's old quarters, the public expected to see a pure white elephant. Instead, what they got was an elephant that was dirty grey in colour, with a few pinkish spots on his face and trunk.¹² With Jumbomania still in people's minds, and the prospect of Barnum meddling with the zoo once again, Taoung Taloung's arrival was fraught with controversy. Described as a freak of nature and a fraud, his physical appearance was brought into question, as well as the nature of his 'whiteness'. Before long, Taoung Taloung and his Burmese handler, 'Raoum Raddi', were subject to racial scrutiny, first by the media and then by naturalists, questioning the validity of Barnum's claims and whether white elephants existed at all. Taoung Taloung's stay was very controversial, situating the elephant and his handler in the discourses of race, empire, and Anti-American sentiment.

When it comes to writing about animals in historical contexts, like the aforementioned elephants, it is typical for them to be discussed in one of two ways: either as named individuals, or as generic representatives of a given species. As named individuals, specific animals are commonly examined as isolated cases, usually framed as the protagonist or as an exceptional individual

¹² L. Harding, *Elephant Story: Jumbo and P. T. Barnum Under the Big Top*, p. 110.

in the context of human records. Analyses of Jumbo the elephant, for instance, are characteristic of this kind of study, framing his life as a biographical account that focuses almost exclusively on his uniqueness and individuality.¹³ By comparison, scholars dealing with broader themes such as changing attitudes towards a species, be it dogs, cats, or tigers, have tended to write generically about animals or in the abstract, describing them as representatives of a given species.¹⁴ As a result, two kinds of animal history have emerged, the former examining an individual animal within a specific context, and the latter contextualising a form of animality whose collective ontology is brought into being by an overarching narrative. Methodologically and analytically, they both are equally valid and acceptable approaches that have advanced valuable macro and micro perspectives, contributing alternative ways of writing animal histories.

Historical research concerning human-elephant interactions are no exception to this rule, typically falling into one of the aforementioned categories. This has produced a range of interesting outlooks, examining perspectives of *an* elephant and *the* elephant in different historical settings. Such analyses have traced elephants in a variety of settings, including in captivity, in museums, and in the wild, as well as dealing with conceptual perspectives such as their symbolic status, consciousness, and the prosect of 'knowing elephants'.¹⁵ Individual

¹³ W. P. Jolly, *Jumbo*, pp. 19-77. For other biographical accounts of animals see, J. Simons, *Obaysch: A Hippopotamus in Victorian London* (Sydney: Sydney University Press, 2019); A, J. P. Flack, "The Illustrious Stranger": Hippomania and the Nature of the Exotic', *Anthrozoös*, Vol. 26, No. 1 (2013), pp. 43-59; L. C. Rookmaaker, *The Rhinoceros in Captivity: A list of 2439 Rhinoceroses Kept from Roman Times to 1994* (The Hague: SPD Academic Publishing, 1998); E. Baratay, *Biographies Animales: Des Vies Retrouvées* (Paris: Seuil, 2017).

¹⁴ See, P. Boomgaard, Frontiers of Fear: Tigers and People in the Malay World, 1600-1950 (New Haven: Yale University Press, 2001); S. Mishra, Beastly Encounters of the Raj: Livelihoods, Livestock and Veterinary Health in North India, 1790-1920 (Manchester: MUP, 2015); L. E. Robbins, Elephant Slaves & Pampered Parrots: Exotic Animals in Eighteenth-Century Paris (Baltimore: JHUP, 2002).

¹⁵ H. Cowie, 'Elephants, Education and Entertainment: Travelling Menageries in Nineteenth-Century Britain', *Journal of the History of Collections*, Vol. 25, No. 1 (2013), pp. 103-117 (pp. 107-109); G. Singh, 'Elephant Hunting in Colonial Assam', *Proceedings of the Indian History Congress*, Vol. 77 (2016), pp. 759-765; N. Nongri, 'Elephant Hunting in Late 19th Century North-East India: Mechanisms of Control, Contestation and Local Reactions', *Economic and Political Weekly*, Vol. 38, No. 30 (Jul. 26 – Aug 1, 2003), pp. 3189-3199; S. J. M. M. Alberti, 'Maharajah the Elephant's Journey From Nature to Culture', in *The Afterlives of Animals: A Museum Menagerie*, ed. S. J. M. M. Alberti (Charlottesville: Virginia University Press, 2011), pp. 37-57; S. Sivasundaram, 'Trading Knowledge: The East India Company's Elephants in India and Britain', *The Historical Journal*, Vol. 48, No. 1 (2005), pp. 27-63; N. Rothfels, 'The Eyes of Elephants: Changing Perceptions, *Tidsskrift for Kulturforskning*, Vol. 7. No. 3 (2008), pp. 39-50; S. Nance, *Entertaining Elephants: Animal Agency and the Business of the American Circus* (Baltimore: JHUP, 2013).

histories of elephants like Jumbo and Chunee - an Asian elephant brought to London in 1811 who was brutally put to death and became a *cause célèbre* in 1826 – are but two examples that have been brought under recent biographical scrutiny.¹⁶ At the forefront of this historical subfield is Nigel Rothfels, who has produced several important works on elephants in relation to human history. In some of his most recent publications, Rothfels has sought to disentangle human thoughts from elephants' lives, exploring how key ideas and notions, such as being exceptionally wise, deeply emotional, and having a special understanding of death, have long been associated with elephants.¹⁷ Exploring these preconceptions, Rothfels has shed light on some of the most inherent biases of our vexatious human-elephant relationship, demonstrating that elephants are not what we think they are – and they never have been – but put plainly are simply 'our elephants'.¹⁸ The range of historical elephantine studies has thus grown substantially, making them one of the most talked about species in historical animal studies, and their status as charismatic megafauna has only increased this desire for research.

Yet, upon closer inspection, it soon becomes apparent that a certain amount of historical complexity is lost when it comes to writing about *an* animal or *the* animal, forgoing some of the intricacies of a multi-tiered reality of living.¹⁹ Out of such concerns, historians have started investigating previously unexplored dimensions of human-animal experiences, seeking to address configurations of

¹⁷ N. Rothfels, & D. Blau, *Elephant House* (State College: Penn State University Press, 2015); N. Rothfels, *Savages and Beasts: The Birth of the Modern Zoo* (Baltimore: JHUP, 2002); N. Rothfels, 'Why Look at Elephants?', *Worldviews: Global Religions, Culture, and Ecology*, Vol. 9, No. 2 (2005), pp. 166-183; N. Rothfels, 'Killing Elephants: Pathos and Prestige in the Nineteenth Century', in *Victorian Animal Dreams* (London: Routledge, 2017), pp. 53-63; N. Rothfels, 'Mammoths in the Landscape', in *Routledge Handbook of Human-Animal Studies*, ed. G. Marvin & S. McHugh (London: Routledge, 2014), pp. 10-22.

¹⁶ S. Nance, *Animal Modernity: Jumbo the Elephant and the Human Dilemma*, pp. 9-39; J. Sunderland, *Jumbo: The Unauthorised Biography of a Victorian Sensation* (London: Aurum, 2014). For Chunee see, C. Grigson, *Menagerie: The History of Exotic Animals in England* (Oxford: OUP, 2018), pp. 190-191; J. Bondeson, *The Feejee Mermaid and Other Essays in Natural and Unnatural History* (Ithaca: Cornell University Press, 1999), pp. 64-95. Also see, S. A. Bendini, *The Pope's Elephant: An Elephant Journey from Deep in India to the Heart of Rome* (London: Penguin, 2000).

¹⁸ N. Rothfels, *Elephant Trails: A History of Animals and Culture* (Baltimore: JHUP, 2021), pp. 1-10.

¹⁹ For more on the 'multi-tiered reality of living'. See, T. K. Hareven, 'The History of the Family and the Complexity of Social Change', *The American Historical Review*, Vol. 96, No. 1 (Feb., 1991), pp. 95-124; T. K. Hareven, *Families, History, and Social Change: Life Course and Cross-Cultural Perspectives* (London: Routledge, 2018).

interspecies studies and transformative ecologies.²⁰ Examining the ecologies of elephants and their impact on other animals, Johnathan Saha has argued that 'in various ways, and through their dietary habits alone, elephants perform[ed] essential tasks in rendering forest environments more habitable for a range of smaller animals'.²¹ This cascade effect, as Saha has termed it, had a profound impact of a multitude of animals, and can provide historians with an innovative conceptual lens through which histories of empire, social change, and animality, can be narrated through and on to the lives of multiple species. As a conjectural analysis, these ecological perspectives provide an alternative means of addressing various animals in historical contexts, which have otherwise fixated on named individuals or generic one-on-one human animal relations.

The relative naturalism of the ecological approach, however, is somewhat complicated when it comes to discussing elephants in captivity, as their ability to perform natural ecological tasks was generally prohibited. Nevertheless, even within the historical context of captivity, contiguous approaches to this ecological perspective can be addressed, investigating the subtleties of interactions, both real and fabricated, *between* elephants. Historians have rarely sought to delve into the ecological perspective of different organisms, but equally, interactions between individual animals of the same species (an intra-species viewpoint) have seldom been examined.²² This intraspecific perspective, as a conceptual stipulation, implies that far from displaying animals as solitary individuals, elephants housed at the zoo were generally perceived as named individuals within a group, whose lives, behaviours, and perceptions were influenced by the collective arrangement of the gardens' setting. Although not a natural herd,

²² Comparative studies have been conducted, but again, they tend to discuss animals as distinct individuals rather than how they actually interacted with one another. For comparative animal histories, see, H. Cowie, 'A Tale of Two Anteaters: Madrid 1776 and London 1853', *Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 591-614. K. Rookmaaker, J. Gannon & J. Monson, 'The Lives of Three Rhinoceroses Exhibited in London 1790-1814', *ANH*, Vol. 42, No. 2 (2015), pp. 279-300.

²⁰ See, J. Saha, Colonizing Animals: Interspecies Empire in Myanmar, pp. 6-27.

²¹ Through their diet, elephants would prune and thin the forest grass, allowing sunlight to reach the ground and facilitate more plant life, which in turn, would enable insects and herbivorous animals to feed. Striping bark from trees provided several species of deer with shoots, foliage, and salt licks, thereby indirectly impacting the homeostasis of prey-predator relationships with tigers. J. Saha, 'Accumulations and Cascades: Burmese Elephants and the Ecological Impact of British Imperialism', *The Transactions of the Royal Historical Society*, Vol. 32 (2022), pp. 177-197 (p. 192).

elephants at London Zoo were hardly ever viewed or housed in complete isolation, hence the chapter will reflect on the elephants' supposed separatism. This 'herd mentality', provides an alternative means of reconstructing the multitiered reality of species living in captivity that is situated somewhere between a multispecies and generic single species analysis. It is through this analytical framework that the nuances of the collective/individual divide can be broached, exploring aspects of the elephant(s) in the gardens of the London Zoological Society.

There was always a collection of elephants in the ZSL gardens throughout the latter half of the nineteenth century, which changed and evolved as different elephants entered and left the establishment. This state of affairs shaped how the public viewed the elephants, both as a collective and as individuals. Between 1851 and 1903 approximately twenty-two elephants were exhibited in the menagerie, spending fourteen years on average in the gardens.²³ The vast majority of these were Asian elephants, which partly due to Britain's commercial and colonial ties with South East Asia, were more readily available and accessible than the African species.²⁴ In total, seventeen Asian elephants were presented or purchased by the Society, which apart from a ten-month period in 1875, were permanently exhibited in the gardens.²⁵ After June 1865, African elephants were also consistently exhibited, with Jumbo being the first to be displayed. He was just an infant at that point, but was shortly followed by a young female named Alice in September 1865. Three more African elephants were later acquired, which although a comparatively modest collection, was an impressive feat given the challenges associated with procurement.²⁶

Like other big herbivores, elephants were housed in the middle gardens, sharing a house with the rhinoceroses. Here regulations were not as strict on the

²⁴ C. Plumb, "Strange and Wonderful': Encountering the Elephant in Britain, 1675-1830', *Journal of Eighteenth Century Studies*, Vol. 33, No. 4 (2010), pp. 525-543 (p. 526).

²³ The records are sometimes unclear as to when, or if, an elephant stayed in the ZSL gardens. For example, there are no further details concerning a pair of Asiatic elephants deposited on 18th March 1884. Hence the approximation. See Appendix III for more details.

²⁵ The ten month gap was the result of Jenny, the baby Asian elephant that arrived in 1852, dying after a thunder storm. She supposedly died of fright.

²⁶ Elephant catching was a big business in India, but was not well-established in Africa. See, J. Mackenzie, *The Empire of Nature: Hunting, Conservation, and British Imperialism* (Manchester: MUP, 1997), pp. 167-199.

design of buildings, allowing the Society to construct much larger buildings.²⁷ In 1870 the original elephant house (designed by Decimus Burton) was knocked down and a new building was erected on the site of the wooden Wapiti House. It was built adjacent to the original house, providing a loftier space for the pachyderms. In total, eight stalls were constructed that opened on to two outside paddocks, both of which were equipped with large bathing pools.²⁸ The house, designed by Anthony Salvin, was built with a long tiled corridor that allowed visitors to view the paddocks from left to right, which according to John Edwards, was 'hailed as a masterpiece when new, only to be reviled after a few years'.²⁹ By the mid-1880s, the house was overcrowded, housing four elephants and six rhinoceroses; the elephants had to share paddocks and had restricted access to the outside bathing pool.³⁰ By modern standards, both houses were wholly inadequate, but, it was within this space that visitors came to observe the elephants, influencing collective and individual perspectives of the elephant(s) at the zoo.

Take Betsy and Jenny, the mother and calf duo that rivalled Obaysch in the early 1850s, as an example. The pair were acquired from Cawnpore in 1851 for £800 and were star attractions in the gardens until 1854, when Betsy was sold to the newly established zoological gardens in Brussels.³¹ As a mother and calf duo, it was almost expected that the pair be described in relation to one another, but even beyond their familial association, their lives were framed through their somatic and literal interactions with each other. Noting the antics performed by Jenny when bathing with her mother in the deep pool, for instance, one newspaper commented that 'no bathing woman ever took more sedulous care in immersing a wayward child from the steps of a machine than does elephant *mère*

²⁷ The zoo's layout had to cope with the irregular shape of the land available to it, as well as its legal obligations, but the Society made the best use of the limited area available. See, T. Ito, *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014), pp. 29-31.
²⁸ The west paddock containing the original pool used by the Society's first elephant, Jack, in 1831.

²⁹ 'The Cape Ant-Eater', *ILN,* 3 July 1869, p. 13; J. Edwards *London Zoo: From Old Photographs 1852-1914, 2nd edition* (London: Butler & Tanner, 2012), p. 80.

³⁰ This does not include Rostom and Omar who were housed in temporary paddocks in the main gardens as part of the Prince of Wales' collection. See, 'The Princes' Animals from India', *ILN*, 27 May 1876, p. 518.

³¹ T. Ito, *London Zoo and the Victorians*, pp. 121-122; W. Lambrechts, 'The Brussels Zoo: A Mirror of 19th Century Modes of Thought on the City, Science and Entertainment', *Brussels Studies*, No. 77 (June, 2014), pp. 1-11.

with her lively offspring, who is compelled by the weight of the maternal trunk to remain a certain period under water, and when duly cleansed by the ablutions, to emerge and plaster herself with fluid mud'.³² The Society's guidebook offered a similar description, labelling them a 'highly interesting pair, [who] are apparently on the most affectionate terms, and the maternal solicitude on the one side, seems equal to the filial regard, if we may so call it, on the other... this amiable relation does not appear to prevent them from robbing each other, so far as they can, of any little comestible thrown to them by a visitor'.³³ Betsy and Jenny were almost always exhibited and described in relation to one another, displaying an affectionate bond that visitors could observe on a daily basis.³⁴ Far from being viewed in isolation, their interactions helped solidify their individual and collective statuses as star attractions in the zoo.

Similar assertions can be made about Jumbo and the period during which he lived in the gardens, as another eight elephants were displayed in the seventeen years he resided there, including Jenny [figure 15].³⁵ It is reasonable to suggest that Jumbo's interactions with these elephants differed considerably from those between Betsy and Jenny, not least because his own mother had been killed during the process of his capture, but also because he was a different elephant with different behavioural traits. Alison Bell, an interrogative biologist, has argued that like humans, 'evidence for individual variation in traits that we would recognize as personalities [has] cropped up in animals ranging from fish to monkeys to squid... even an individual spider behaves differently from other spiders through time and in different situations.³⁶ Various accounts of Jumbo's 'personality' seemingly substantiate this claim, describing him as quite

³² 'The Chimpanzee at the Zoological Society's Gardens', *ILN*, 31 July 1852, p. 70.

³³ The Zoological Gardens: A Description of The Gardens and Menageries of the Zoological Society – A Hand-book Guide for Visitors (London: H. G. Clarke, 1853), pp. 57-58. Incidentally, Betsy and Jenny were depicted on the front cover of this guidebook edition, with the mother elephant placing her trunk around the calf.

³⁴ 'The Chimpanzee at the Zoological Society's Gardens', *ILN*, 31 July 1852, p. 70.

³⁵ Likewise, Jung Perchad and Sulli Culli were often described in relation to each other, being 'so playful and tame that Mr Bartlett's children have been in the habit of entering their house and romping with them... we have seen them gambolling, throwing themselves on the ground and foiling about, legs in the air, like kittens'. See, 'Jumbo's Successors', *Dundee Courier*, 29 March 1882, p. 4

³⁶ A. M. Bell, 'Animal Personalities', *Nature*, Vol. 447 (2007), pp. 539-540; M. Wolf & F. J. Weissing, 'Animal Personalities: Consequences for Ecology and Evolution', *Trends in Ecology & Evolution*, Vol. 27, No. 8 (Aug., 2012), pp. 452-461.



Figure 15. 'Elephants at London Zoo', by Ernest Griset, c. 1865. Painting in ZSL library. Depicts Jenny, an Asiatic cow, then young Asiatic bull elephant Peter. The smallest at the back is a very young Jumbo.

mischievous and a humorous tease. According to his keeper, Mathew Scott, Jumbo would often wait for him to fall asleep before carefully taking off his bedclothes without waking him. Scott would later 'find the guilts crowded into the ventilator overhead', discovering his coat and vest had been tucked into a grating out of reach.³⁷ Upon this basis, it is fair to surmise that changes in the collection of elephants, as well as zoo personnel, could alter the social dynamic and collective interactions of the elephants, as different elephants exhibited distinct personality traits. Although inherently conjectural, it implies that behavioural traits were an important factor in shaping how the elephants interacted with each other, and subsequently how people came to perceive them, as the inhabitants changed intermittently. Furthermore, like all organisms, these elephants grew and matured, changing cognitive behaviours and the nature of their interactions over time. Jumbo did not exhibit the same behaviours in 1865 as he did in 1882; arguably this was the reason the Society sold him to Barnum. Behavioural traits and differences in individual elephants shaped actual interactions between elephants, ultimately influencing how visitors appreciated them, as the

³⁷ J. Monteith, *Familiar Animals and Their Wild Kindred*, (New York: Van Antwerp, 1887), p. 123.

arrangement of different elephants created an ever-changing curated collection of individuals.

In addition to these tangible interactions, fabricated ones were just as important in shaping how the elephants were perceived, creating imagined relationships between elephants. Unlike actual interactions, where elephants physically interacted with each other, imagined ones were created by the public and then projected on to the elephants. For instance, it was fairly common for Jumbo and Alice, the only pair of African elephants in the gardens between 1865 and 1882, to be viewed in relation to one another, often being described as a married couple. She was regularly referred to as 'his little wife', a moniker that was intended to make her as popular as her giant husband.³⁸ They were frequently walked around the gardens together, and photographs often depicted them standing side-by-side next to the riding ladders. The official zoo guidebook even described Alice as 'the younger female by his side', more or less endorsing their marital bond.³⁹ As a result, genuine interactions fed into fictitious ones, which reached their zenith when Jumbo departed in March 1882. Despite the fact that Jumbo and Alice never shared a den, 'the ever-sentimental public...decided that Alice was "Jumbo's little wife", so news of the callous separation of this loving pair was greeted with nothing but dismay.⁴⁰ Rumours then began to circulate that an 'interesting announcement' about Alice was momentarily expected, to which indignation reached fever pitch.⁴¹ Popular songs were written about their bond, the most famous of which contained the lines:

> Jumbo said to Alice, "I love you"; Alice said to Jumbo, "I don't believe you do. For if you really loved me, as you say you do, You wouldn't go to Yankeeland and leave me in the Zoo".⁴²

³⁸ P. Yeandle, "Jumboism Akin to to Jingoism": Race, Nation and Empire in the Elephant Craze of 1882', in *The Mackenzie Moment and Imperial History*, ed. S. Barczewski & M. Farr (London: Palgrave, 2019), pp. 47-74 (p. 65).

³⁹ P. L. Sclater, *Guide to the Gardens of the Zoological Society of London, 29th Edition* (London: A. Bradbury, 1875), p. 51.

⁴⁰ W. Blunt, *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976), p. 180.

⁴¹ W. Blunt, Ark in the Park, p. 180.

⁴² Quoted in, J. L. Mosier, 'The Big Attraction: The Circus Elephant and American Culture', *Journal of American Culture*, Vol. 22, No. 2 (Summer, 1999), pp. 7-18 (p. 17).

When the time finally came for Jumbo to leave the gardens, the Daily Telegraph reported that in all but human words, his cries were soon heard in the elephant house, 'where poor Alice was again seized with alarm and grief, so that every note of sorrow from the kneeling elephant in the road had its response within the gardens'.⁴³ At the sound of Alice's increasing lamentations, 'Jumbo became almost frantic, and flung himself down on his side'.⁴⁴ Eventually, he was returned to the elephant house (this was the first of three attempts to remove him from the gardens) and the joy of Alice was described as knowing no bounds, expressing her delight with 'clumsy gambols around her compartment'.⁴⁵ A tearful anthropomorphised account, these fictitious interactions embodied the full range of human-animal emotions, emphasising Jumbo and Alice's sadness as an expression of the public's collective grief.⁴⁶ Love for family as indicative of his humanity, Jumbo's love for Alice and the connotations of their imagined interactions fuelled the public's understanding of both elephants, portraying them as rational and visceral subjects whose lives were being torn apart by Barnum and the Society's directors.⁴⁷

Even after Jumbo departed, his reputation continued to precede him, casting a long shadow over the remaining residents of the elephant house. Just two months after his departure, the Society purchased another African elephant from Carl Hagenbeck, which was immediately cast as the replacement in miniature of the much-lamented Jumbo. Named Jingo, 'in appropriate allusion to the circumstance now existing in the continent whence he came', he took up residence in Jumbo's vacated stall, and was quicky fitted with a wicker howdah to get 'him ready for carrying children about in the way of his larger brethren'.⁴⁸ With figuratively large boots to fill, the Society's task of replacing Jumbo was exceptionally fractious, but the comparisons were uncanny, and just like Jumbo's assimilation to instinctive imperial values, Jingo was literally akin to jingoistic

⁴³ 'A Scene in the 'Zoo', *Daily Telegraph and Courier*, 20 February 1882, p. 3.

⁴⁴ 'A Scene in the 'Zoo', *Daily Telegraph and Courier*, 20 February 1882, p. 3.

⁴⁵ W. Blunt, Ark in the Park: The Zoo in the Nineteenth Century, p. 180.

⁴⁶ H. Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987), p. 232.

⁴⁷ P. Yeandle, "Jumboism Akin to to Jingoism": Race, Nation and Empire in the Elephant Craze of 1882', pp. 61-62.

⁴⁸'Zoological Society's Collection', *ILN*, 23 September 1882, Press Cuttings Book, Vol. 3: July 1875 – Oct. 1891, ZSLA, GB 0814 HCAA.

credentials.⁴⁹ However, perhaps more than any elephant in the gardens after Jumbo's departure, Jung Perchad was subject to the most demeaning comparisons, especially when it came to giving rides around the gardens. It would take a number of years for Jingo to reach the lofty heights of his African forebearer, and with Jumbo 'struck off the rolls of the Zoological Gardens, the turn of the other elephants [had] come again'.⁵⁰ As the next largest, Jung Perchad became the flagship elephant, doing his best to 'fill the place as a quadruped child-omnibus'.⁵¹ Phil Robinson, writing in *The Graphic* in 1883, even implied Jung Perchad had supplanted Jumbo 'in the gigantic but fickle affections of Alice'.⁵² Other newspapers dubbed him Jumbo's child-carrying successor, and throughout his life he was compared in terms of height and stature, almost always being described as 'nearly as big as Jumbo' but never as famous.⁵³ The epithet even appeared in the illustrated series 'Zig-Zags at the Zoo' by Arthur Morrison, which ran in the Strand Magazine between 1892 and 1893 - a decade after Jumbo's departure and several years after his death.⁵⁴ It was a light-hearted illustrated feature characterised with subtleties that embraced contemporary attitudes and sobering undertones of the day. When talking about Jung Perchad taking a walk in the gardens, it noted that:

The arch under the Outer Circle stands for ever a memorial of the stature of the late lamented Jumbo. Jumbo could just get through that arch, and then by aid only of a certain shrinking within himself — a sort of gigantic shrugging of the shoulders...Now, this arch and the constant talk of Jumbo is a lifelong grief and tribulation unto Jung Perchad. Nothing would please Jung Perchad so much as to get a sore back against the top of that arch. But he can't. He is exactly three inches too short. He might get the sore back, of course, by rubbing against the side, but Jung Perchad is an honourable elephant, and a sportsman — never condescending to a mean trick besides which, nobody would accept any sore as evidence of record height except one at the very top. "Oh, dear" says the young lady visitor, "what a great elephant!". And Jung Perchad feels the sinful pride rise within him. Then the young lady says,

⁴⁹ 'Zoological Society's Collection', *ILN*, 23 September 1882, Press Cuttings Book, Vol. 3: July 1875 – Oct. 1891, ZSLA, GB 0814 HCAA; P. Yeandle, "Jumboism Akin to to Jingoism": Race, Nation and Empire in the Elephant Craze of 1882', p. 61.

⁵⁰ 'Jumbo's Successors', *Dublin Evening Telegraph*, 31 March 1882, p. 4.

⁵¹ 'An Amateur Photographer in the Zoo', *The Graphic*, 5 September 1883, p. 271.

⁵² 'An Amateur Photographer in the Zoo', *The Graphic*, 5 September 1883, p. 271.

⁵³ 'The Zoological Gardens', *The London Evening Standard*, 27 December 1889, p. 8.

⁵⁴ For the collective works see, A. Morrison, *Zig-Zag at the Zoo: Penned by A. Morrison & Pencilled by J. A. Shepherd* (London: G. Newnes, 1895).

"Is he as big as Jumbo was?", and Jung Perchad's heart is ready to break, for well he knows lies too truthful reply. Three inches less.⁵⁵

This was just one example in which Jung Perchad was compared with Jumbo, situating his status in relation to another elephant. Nevertheless, it demonstrates that comparative and imagined interactions between elephants shaped perceptions of individuals long after other elephants died or left the zoo. Whether based on actual interactions or not, fictitious tales and comparative stories moulded perceptions of elephants that were framed within a collective outlook of the elephants at the ZSL.

Having expanded the features of this analytical approach, the following two sections will now apply this to different aspects of the elephants at the ZSL, looking at how the public interacted with these elephants through the collective/individual lens. The next section will therefore consider how the public encountered the elephants outside the enclosure space, especially during the elephant rides. This was an activity that enabled visitors to physically get closer to these animals than others in the gardens.

When species meet: Uncaged bodies on display

Compared with most of the animals at the ZSL, elephants were given an extraordinary amount of 'freedom' when it came to manoeuvrability around the gardens. As the largest mammals exhibited in the gardens, keeping these animals in a reasonably healthy state (at least by the standards of the day) was of paramount importance, as the cost of replacing one was just as much a financial burden as a logistical nightmare. In rudimentary terms, walking the elephants around the gardens was an easy way of ensuring these animals stayed healthy, and, on seeing the potential marketability of these strolls, it was soon turned into an activity visitors could also enjoy.

Before the new elephant house was built in 1870, elephant rides were organised outside the Wapiti House in the middle garden, next to the original

⁵⁵ *The Strand Magazine, An Illustrated Monthly, Vol. IV July to December*, ed. Geo. Newnes (London: G. Newnes, 1892), pp. 39-40.

elephant house, and were a regular attraction during the summer months.⁵⁶ At some point, it was decided that the rides should be moved to the main gardens, creating a new meeting point outside the refreshments room, next to the Great Lawn. This was a considerable distance from the elephant house, and the elephants were walked through the gardens using the Outer Road tunnel to get there, self-advertising as they went. Riding steps and ladders that had been used outside the Wapiti House were also moved, enabling visitors to climb onto the elephants' back.⁵⁷ Jumbo and Jung Perchad were both quite comfortable using howdahs, but not all elephants were as keen. Alice and Solomon (an African male, housed 1884-1893) never tolerated the saddled howdah, but were content to be ridden without one. Instead, large cloth tarpaulins were placed on their backs, allowing them to carry up to five children at a time.⁵⁸ Once boarded, the elephants were guided by their keepers and walked around the gardens along what became known as the Elephant Walk. Although no specific details of the route have survived, snapshots from contemporary photographs suggest that the path included passing the back of the bear pit, walking parallel to the terrace walk along what became the 'elephant way', turning back towards the eastern aviary and the fellow's tearoom, before reaching the trees next to the lawn again.⁵⁹

The choice of route, or at least parts of it, were carefully thought out and allowed riders and passers-by to appreciate the animals in full, sensibly avoiding cages with predatory animals. The decision to start the elephant rides on the lawn outside the public tearoom was no coincidence, however, as it was a good place for the elephants to move around, and was an excellent site for drawing a crowd. On busy days, like Easter weekends and Whit-Mondays, large crowds could gather on the lawns, and for those in the refreshments room, they could sit and

⁵⁶ For some early examples of elephants outside the enclosure and elephant rides see, LMA, SC/GL/PR/M/REG/p5388109, p5390939; SC/PZ/SM/01/239, 252, 260.

⁵⁷ The sheets were hung in nearby 'elephant trees' when not in use. The Turkey oak trees were presented to the Society on Christmas Day 1848 by the secretary David W. Mitchell. See, J. Edwards, *London Zoo: From Old Photographs*, p. 208.

⁵⁸ For photographs of Alice and Solomon using these sheets see, NA, COPY 1/56/564; NA, COPY 1/56/349.

⁵⁹ Keepers either walked alongside the elephants, stood on the side of the howdahs, or sat behind the elephant's head, usually in a nonchalant fashion. See, CWA, T136.3 (0077); T136.3 (031); T136.3 (035). J. Edwards, *London Zoo: From Old Photographs*, pp. 94, 96, 124-127.

watch the spectacle as they enjoyed their food and drinks.⁶⁰ The refreshments room, situated south east towards the vulture aviary, was well placed for this activity, looking out at an idyllic section of the gardens largely made up of lawns and flowerbeds that were surrounded by small trellises and exotic plants. This relatively building-less segment of the gardens, separated by botanical partitions, made it easier for visitors to watch the elephants. Plus, dining to the sights and sounds of elephants whilst drinking tea helped evoke an aesthetic that was emphatically tied to the tropics, distant landscapes, and colonial sentiment.⁶¹

The rides themselves were equally ladened with exotic tropes, promoting an experience that aroused feelings of conquest and adventure. Most the elephants that were used for rides carried howdahs, which to a mid-to-late nineteenth century visitor, were strong indicators of durbars, tiger hunts, and empire.⁶² Even children's books reinforced these references, a transformation Alix Heintzman has described as part of a larger invasion of new species in British children's literature, 'crawling, prowling, and swinging into the picture books...abruptly becoming part of every child's animal imagination'.⁶³ Henry Scherren's 1900 book, Walks and Talks in the Zoo, was a typical example of this, recounting the fictitious tale of Tom and his two sisters, Maud and Hilda, during a visit to London Zoo. As part of their outing, the children make friends with the real-life Asian elephant, Suffa Culli, who anthropomorphically speaks to them after they feed her some fruit and biscuits.⁶⁴ In an exchange the children ask, 'what do they use you for in India?', to which the elephant responds, 'the native princes use elephants to ride on in state processions...for the government they draw guns and baggage for the troops...and sportsmen use them in tigerhunting.⁶⁵ Cultural connotations of empire were deeply embedded, and it is hardly

⁶⁰ Likewise, there was a 'refreshments bar' in the middle garden, which was a stone's throw away from the elephant house. See, *A Birds Eye View of the Zoological Gardens, Regent's Park* (London: H. G. Clarke, 1854).

⁶¹ J. Edwards, *London Zoo: From Old Photographs*, p. 112.

⁶² For example, see, 'Interview of the Governor-General of India with Maharaja Goolab Sing', *ILN*, 15 March 1851, p. 210; 'Visit of the Prince of Wales to India, Special Supplement', *ILN*, 18 December 1875, p. 609. Anon., *A Visit to the Zoological Gardens, or Something about Animals* (London: Dean & Son, 1876), p. 3; *All the Fun of the Zoo for One Shilling* (London: G. Newnes, 1895); R. Tuck, *In the Jungle* (London: R. Tuck & Sons, 1900).

⁶³ A. Heintzman, 'E is for Elephant: Jungle Animals in Late-Nineteenth Century British Picture Books', *Environmental History*, Vol. 19 (July 2014), pp. 553-563 (p. 554).

 ⁶⁴ H. Scherren, Walks and Talks in the Zoo (London: Religious Tract Society, 1900), pp. 13-15.
 ⁶⁵ H. Scherren, Walks and Talks in the Zoo, p. 15.

surprising to find that these were applied to the elephant rides at the zoo.⁶⁶ Like the visitors drinking tea in the refreshment pavilion, the rides were an imitation of colonial life, intertwining an imperial discourse that deployed sentiments of power and control over nature.⁶⁷

The nature of these rides changed somewhat after Jumbo's departure in 1882, as the money prior to this event had typically gone straight into the keeper's pocket.⁶⁸ In a bid to change this arrangement, however, the council agreed that 'no person be permitted to ride on the elephants and camels without a ticket'.⁶⁹ This was to monitor the receipts of rides, but it was also to prohibit the keepers from receiving additional gratuities. Tickets were sold at twopence every afternoon during the summer months from two until six, except on Sundays, but this was later reduced to a halfpenny.⁷⁰ Using these ticket sales, it is possible to examine the popularity of these rides, as they often fluctuated as different elephants entered and left the zoo's service. For instance, sales rose rapidly between 1887 and 1892, when Jung Perchad and Sulla Culli were used for rides alongside with the Society's younger African bulls, Jingo and Solomon. Equally, sales dropped when elephants died, like Jung Perchad, to whose death was attributed a £160 drop in annual riding receipts for 1896 [table 3].⁷¹

⁶⁶ In *All about Animals*, a collection of photographs with detailed descriptions, the elephant and camel sections are the only segments that include images of animals taken outside the zoological gardens. Photographs of zoo elephants entitled, 'A good scrub' and 'The Elephant Bath', are presented next to images depicting a company of Government Elephants in India labelled, 'Seeing him off', and another 'In the Teak Yard'. See, G. Bolton, *All About Animals, for Old and Young: Popular, Interesting, Amusing* (London: G. Newnes, 1897), pp. 26-30.
⁶⁷ A. Heintzman, 'E is for Elephant: Jungle Animals in Late-Nineteenth Century British Picture Books', p. 556. Also see, J. Bristow, *Empire Boys: Adventures in a Man's World* (London: Unwin Hyman, 1991), p. 15.

⁶⁸ No one can say for certain how much Mathew Scott earned from these rides, but it is clear that he made a handsome profit from his celebrated companion, at least compared to subsequent ticketed receipts. Prior to the ticket system, Scott dominated the elephant rides and would not let other senior keeper partake. Seeking to protect his extra income, Scott would intimidate other keepers and soon fell out of favour with the superintendent. See, M. Scott, *Autobiography of Mathew Scott: Jumbo's Keeper, formerly of the Zoological Society's Gardens, London, and Receiver of Sir Edwin Landseer Medal in 1866 – Also Jumbo's Biography by the same author* (New York: Trow's Printing Co, 1885), pp. 48-50.

⁶⁹ ZSLA, CMM, 9 April 1882. ⁷⁰ 'The Elephant and Camels in the Zoological (

⁷⁰ 'The Elephant and Camels in the Zoological Gardens', *St James's Gazette*, 29 April 1882, p. 11.

⁷¹ See, RoC, (1896-7). Receipts were also lower when the Society had a collection of aging elephants and younger ones too small to carry howdahs. This was the case between 1882 and 1887 when Jingo and Solomon were quite small. Equally, as an adult, Jingo became too dangerous to be ridden, and, like Jumbo before him, was withdrawn from public rides around 1899.

Year	Receipts
1882	£305
1883	£429
1884	£418
1885	£449
1886	£419
1887	£454
1888	£685
1889	£724
1890	£724
1891	£610
1892	£606
1893	£772
1894	£680
1895	£762
1896	£601
1897	£622
1898	£712
1899	£701
1900	£624
1901	£446
1902	£342
1903	£389

 Table 3. Receipts from the Elephant/Camel Rides, 1882-1903

For the most part, rides were conducted using two or more elephants, meaning visitors saw multiple elephants interacting with each other outside the enclosure space [figure 16]. Visitors were permitted to pet and stroke the elephants during these activities, allowing for interactions that were often prohibited with other animals. Instead of signs requesting visitors 'not to feed the animals', stale buns and cakes were specifically sold by the keepers' wives to give to the elephants. Indeed, after leaving their daily work, Jung Perchad, Suffa Culli, Jingo, and Solomon would 'linger wistfully about the bar...[for] no



Figure 16. Jung Perchad (Left) and Suffa Culli (Right) ca. 1890. Climbing ladders were used to help visitors on to the elephants. Image taken from J. Edwards, *London Zoo: From Old Photographs*, p. 112.

reasonable elephant can refuse a bun, or an apple, or a lead- pencil, or a boy's hat, when it is offered'.⁷² Although it is difficult to know exactly what onlookers thought of these encounters, it is most likely that the prospect of seeing elephants up close and outside their dens created different emotional and receptive responses. For example, recalling the moment the Sultan of Zanzibar encountered Jumbo during his visit in 1876, Bartlett, the superintendent noted:

When the late sultan of Zanzibar with Sir John Kirk visited the Zoological Gardens, "Jumbo" was as usual carrying a crowd of children on his howdah, and the animal passed our party within a few feet. The Sultan expressed his astonishment at an African Elephant of such size being apparently so gentle and manageable. He had never before been so near a living elephant, and his inquiry was "why were they not utilised in his own country?"⁷³

Jumbo's proximity seemed to impress the Sultan. Unlike any elephants he may have encountered in the wild, the zoo space enabled him to get really close to the animal. On another occasion, Mathew Scott recalled Jumbo stopping suddenly when passing through a crowd, refusing to move when he commanded

⁷² The Strand Magazine, An Illustrated Monthly, Vol. IV July to December, pp. 42, 639-640;

Liverpool Weekly Courier, June 25, 1881, p. 2; *Sheffield Weekly Telegraph*, 8 March 1884, p. 1. ⁷³ A. D. Bartlett, *Wild Animals in Captivity*, p. 58.

him to proceed. From his place in the saddle Scott observed that a lady below had become very agitated and came running towards Jumbo. Leaning over the side of the saddle, Scott saw that a child of two or three years old had fallen in the pathway, and was lying between Jumbo's fore feet. Purportedly, Jumbo would not stir until he had picked up the infant 'tenderly in his trunk and passed it over to the mother'.⁷⁴ Despite the rather blatant use of cognitive anthropomorphism and the possibility of Scott exaggerating the account, the story illustrates how physical proximity of the visitors and elephants could create distinctive sensory and emotional experiences.

Of course, people were occasionally injured by the elephants when out on these walkabouts. The idea of being able to ride on or walk next to a potentially dangerous animal meant some visitors even tried to manipulate this arrangement, foiling accidents in a bid to gain compensation.⁷⁵ In 1866, Jumbo was accused of knocking over Edward J. Abraham on 4th October, who contacted the Society's council and requested reparations. According to nearby onlookers, including two keepers and a third witness, Jumbo did not touch the man and so no compensation was given.⁷⁶ Similarly, on 21st October 1891, the Society received a letter demanding compensation for an incident that had happened to Eliza Adelaide Pocklington on 15th September, alleging she had been injured by an elephant. Quite accustomed to people placing fingers into dens, or in the case of Master Styles 'thrusting his [whole] hand inside the bars of the wolf den', the council agreed that no compensation was due under the circumstance.⁷⁷ After several more attempts, including a writ presented to the Society's lawyers, Mrs Pocklington abandoned the case and paid for her damages.⁷⁸ It is also probable that Jingo was the elephant in question when the Society paid John Sentor £60 for injuries he received on 7th August 1900, as it was around this time that Jingo started exhibiting aggressive behaviour characterised as musth.⁷⁹ Fortunately,

⁷⁴ J. Monteith, *Familiar Animals and Their Wild Kindred*, p. 121.

⁷⁵ C. Cornish, *Wild Animals in Captivity: Or, Orpheus at the Zoo and Other Papers* (New York: MacMillan, 1894), p. 151.

⁷⁶ ZSLA, CMM, 17 October 1866.

⁷⁷ ZSLA, CMM, 18 September 1861; *Buxton Herald and Gazette of Fashion*, 15 August 1861, p. 5.

⁷⁸ ZSLA, CMM, March 16 1892; ZSLA, CMM, 20 July 1892; 'Statement of Claim', 9 March 1892, ZSLA, GB 0814 BADP, Eliza Adelaide Pocklington Papers.

⁷⁹ ZSLA, CMM, 19 September 1900.

these incidents were few and far between, and keepers tended to use the 'tamer' and 'more agreeable' elephants for rides.

The prospect of seeing elephants outside the enclosure space nevertheless increased their collective popularity. The prospect of not only being able to watch and hear an elephant, but to partake in petting and riding one contributed greatly to the visitor's sensory experience in meeting the elephants at the zoo. Arguably these encounters were quite different from those experienced with other animals, which fed into how the ZSL's elephants were understood culturally and emotionally, both as specific individuals and as generic representatives of their species. Popularity and longevity in the zoo's service often went hand in hand, with the elephants used for rides typically surviving the longest.⁸⁰ Under the stewardship of the keepers when out on these walks, individual elephants were understood through a collective lens, with specific behaviours appropriated by wider cultural connotations and vice versa. Once an elephant died or stopped giving rides, the next generation would take over, continuing these encounters whilst adding new dynamics and a touch of 'personality' to the riding experience.

However, this was not the case for Taoung Taloung, who, in stark contrast to the other elephants, was viewed as a fraudulent and unnatural animal. Unlike the other elephants, his uniqueness acted as a source of segregation from the rest of the exhibited animals in the gardens. The final section will therefore turn to the cultural connotations of different elephant sub-species, and how, through the case of Taoung Taloung, his brief stay at the ZSL was shaped in relation to race, empire, and anti-Americanism sentiment.

'He is literally the darkest elephant in the collection': Civility, savagery, and racism

The difference in taxonomic attributes of Asian and African elephants was still being thrashed out by naturalists for the most of the nineteenth century, and this has to some extent continued to the present day. In 1869, the ZSL guidebooks

⁸⁰ This is partly why Jumbomania was such a divisive movement, as it was said that thousands of millions of British children, not to mention billions of British babes unborn, would lose out on the prospect of having a ride on Jumbo. See, 'The Cry of the Children', *Punch, or the London Charivari*, Vol. 82, 4 March 1882, pp. 98-99.

still implied that 'the African elephant [was] usually less in size than the Asiatic species...and the general physiognomy [was] guite different from that of the Indian elephant'.⁸¹ Classified as distinct species, African and Asian elephants were understood in relation to their natural environments, embodying characteristics that were emblematic of their distinct geographic distribution. In the widest context, these images circulated as stereotypes, which, with the growing presence of empire, forced 'race and nature [to] collide as white and black inhabitants imagined and enacted their relations to each other', with wild animals getting caught in the middle.⁸² Intermediated in character, generic representations of African and Asian elephants were conditioned within these cultural collisions, acquiring attributes that were disparate from each another and akin to the anthropogenic world-views around them. Asiatic elephants (the case in point) were described as tameable and domesticated, 'usually docile, kind, and intelligent', whilst African elephants were 'stupid and therefore dangerous', whose size and wildness were inherent of the savagery of Africa.⁸³ To paraphrase Christabelle Sethna, assumptions about Asian and African elephants mirrored European beliefs about Asian and African peoples.84

These Eurocentric assumptions were framed in relation to a much longer history of lived human experience and the racial subjugation of non-white peoples, subsequently framing the characteristics of non-human animals as part and parcel of this racial hierarchy. For instance, when talking about the differences in elephant species, the ZSL superintendent Abraham Dee Bartlett wrote:

⁸¹ P. L. Sclater, *Guide to the Gardens of the Zoological Society of London, 22nd Edition* (London: Bradbury & Evans, 1869), p. 52. Similarly, G. P. Sanderson, the superintendent of Government Elephant-catching operations in Bengal, was convinced that elephants lived to between 150 and 200 years old. A more reasonable estimate is between 60-70 years. See, G. P. Sanderson, 'The Asiatic Elephant in Freedom and Captivity', *Journal of the Society of Arts*, Vol. 32 (Nov., 23, 1883), pp. 410-421 (p. 413).

⁸² Y. Suzuki, *The Nature of Whiteness: Race, Animals, and Nation in Zimbabwe* (Seattle: University of Washington Press, 2017), p. vii.

⁸³ D. W. Mitchell, *Guide to the Gardens of the Zoological Society of London* (London: Bradbury & Evans, 1858), p. 52; J. Thomson, *To the Central African Lakes and Back: Vol. 1* (London: Sampson, 1881), p. 302; J. Monteith, *Familiar Animals and Their Wild Kindred*, p. 115; C. Cornish, *Wild Animals in Captivity*, p. 155.

⁸⁴ C. Sethna, 'The Memory of an Elephant: Savagery, Civilisation, and Spectacle', in *Histories of Human-Animal Relations in Urban Canada*, ed. J. Dean, D. Ingram & C. Sethna (Calgary: Calgary University Press, 2017), pp. 29-56 (p. 31).

[...] the African elephant differs, like many other African mammals, from those of Asia. Take for instance, the different races of men in Africa as contrasted with the races of Asiatics, and you will find few of the latter bear comparison with your restless, wandering, determined Arab race; the active and determined chimpanzee of Africa as compared with the mild and inoffensive ourang of Asia... the African elephant, if properly managed, would become quite as valuable and useful as the Indian species. The great difficulty I see is the want of appliances at starting. In the first place, the African animal has far more courage, is much quicker in its movements, and is more determined and obstinate than its Asiatic relative...these animals may not be as docile as Asiatic, but we must not forget that they were regularly tamed and used by the ancients...as for the negroes, the not domesticating them is, I suppose, merely because they – i.e. the negroes, not the poor elephants – are, and have long, if not always, been too great savages.⁸⁵

These comparisons were not just confined to elephants, but were part of a much larger discourse of human/non-human animality, dehumanisation, and racebased bestialisation.⁸⁶ Not exempt from these racial affinities however, the elephants at London Zoo were also cast in the light of these appraisals, effecting how visitors wrote about and observed individual elephants. When mere calves, for example, Rostom and Omar (both Asian elephants) were described as 'perfectly docile, carrying children on their backs with the gentle willingness of a well-trained Newfoundland dog, whose behaviour is not unlike theirs'.⁸⁷ They were briefly attended by two Indian mahouts at the zoo, whose embroidered caps and 'other peculiarities of costume [also] caught the attention of visitors' as models of docility.⁸⁸ The elephants and handlers embodied an appropriate and obedient response expected of colonised peoples, benevolently submitting to the visitors in a 'tractable and well-behaved' manner.⁸⁹

In the same way, by simply living in the gardens, elephants could improve their natural affinities as a result of the metropolitan setting, reframing their status as assimilated subjects within western society. This happened to Jumbo, who despite being born in Africa, was called 'a Londoner by youthful education and

⁸⁵ A. D. Bartlett, Wild Animals in Captivity, pp. 61-63.

⁸⁶ C. Peterson, Bestial Traces: Race, Sexuality, Animality (New York: Fordham University Press, 2013), pp. 1-21. Also see, D. Higginbotham, 'Women/Animals/Slaves: Race and Sexuality in Wycherley's *The Country Wife*' in *Early Modern Black Diaspora Studies: A Critical Anthology*, ed. C. L. Smith, N. R. Jones & M. P. Grier (London: Palgrave, 2018), pp. 37-64 (pp. 52-54).

 ⁸⁷ 'The Princes' Animals from India', *ILN*, 27 May 1876, p. 518.
 ⁸⁸ Ibid., p. 518.

⁸⁹ NA, COPY 1/34/134-6. 'The Elephant and the Law', *The Kentish Independent*, 17 March 1900, p. 6.

friendly association' with a patriotic love for 'friends' and 'home' - home in this case being England.⁹⁰ Transformed through his engagements with the public, Jumbo's popularity was a confirmation of his civility and conformity, distancing him from the presumptive characteristics of an African elephant being a monstrous brute.⁹¹ It was only when he fell victim to the 'hysterical condition known as "must", did he bear the weight of 'uncivilised association', forcing him into 'a reduced state of subjection' that led to his departure.⁹² Hormone-fuelled, Jumbo's conduct (and subsequently Jingo's after him) morphed his disposability, changing from 'an avuncular noble savage beloved by children into an uncontrollable priapic beast that was the stuff of colonial nightmares about restless natives and dark-skinned rapists'.93 In this respect, the gardens were a crucial site for reaffirming political and cultural attributes of animality and racial ideologies, but were equally important in resituating individual elephants as adopted subjects of Victorian sensibilities; these were the constructive values of the civilising mission.⁹⁴ If the public accepted an elephant, allegorically rejecting its otherness, it was more likely to be iconised and sympathetically assimilated.

The exhibition of Taoung Taloung was viewed along these lines. However, given the peculiarity of his skin pigmentation, as a white elephant, he was also viewed through the additional lens that fixated on his 'whiteness'. As stated earlier, Taoung Taloung was a white Asian elephant captured in Burma and was deposited in London Zoo for just fifty-six days by P. T. Barnum, but, as Sarah Amato has argued, his display soon became a forum for discussing nineteenth-century theories of race.⁹⁵ At stake to the viewers of Taoung Taloung, were definitions of race and the malleability of his whiteness as a racial category, what

⁹⁰ 'The "Zoo" Elephant who will not go to America', *ILN*, 25 February 1882, p. 190; P. Yeandle, "Jumboism Akin to to Jingoism": Race, Nation and Empire in the Elephant Craze of 1882', p. 60.

 ⁹¹ 'If Africa is to become a civilized country the sooner this subject is taken up the better, before it is too late. It was said and thought that the African elephant could not be tamed and that the animal would not live in captivity'. Quoted in, A. D. Bartlett, *Wild Animals in Captivity*, p. 59.
 ⁹² 'The Elephant and the Law', *The Kentish Independent*, 17 March 1900, p. 6.

 ⁹³ C. Sethna, 'The Memory of an Elephant: Savagery, Civilisation, and Spectacle', p. 33.
 ⁹⁴ W. M. Adams, 'Nature and the Colonial Mind', in *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era*, ed. W. M. Adams & M. Mulligan (Abingdon: Earthscan, 2003), pp. 16-50.

⁹⁵ S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', *Journal of Social History*, Vol. 43, No. 1 (Fall, 2009), pp. 31-66 (p. 32).

it meant to be identified as white (or white enough) and what it meant to be identified as black. The application of whiteness to the elephant's body was construed as an attribute that could be assigned or denied.⁹⁶ These messages were contested and negotiated through the sojourn of the white elephant, which owing to emerging disciplines of 'objective' knowledge such as anthropology, eugenics, and biology, were consumed by the non-academic public, implicating ordinary citizens in imperial ideologies of race and racial differences.

The political situation in Burma and orientalist accounts of Burmese culture formed much of the context over the controversy of Taoung Taloung's authenticity, as his arrival at the ZSL coincided with a period of heightened tension between Britain and the heartland of the Burmese kingdoms. Anglo-Burmese rivalries had accelerated dramatically in the first half of the nineteenth century, which, being so close to British India, had escalated into two wars in 1824-6 and 1852-3.97 Reports of French activities in Upper Burma had also made the governments in Calcutta and London distinctly uneasy, judging French incursions to be a direct threat to British political and commercial interests in the region.⁹⁸ By the mid-1870s, the French were consolidating their position in Indochina and Anglo-Burmese tensions were once again on the rise, prompting Britain to intervene and embroiled the region in the Third Anglo-Burmese War in 1885. This made Taoung Taloung a living referent to these ongoing tensions on the onset of the conflict, and was a symbolic reference of Britain's regional ambitions.⁹⁹ Similarly, travel accounts had circulated various orientalist accounts of Burmese and Siamese culture prior to these events, recounting European fascinations with South East Asia customs and traditions. Many accounts focused on Buddhist and Hindu cosmology and religious practices, inferring white elephants were pure white animals venerated throughout Asia. As Bernard Cohn and Edward Said, amongst others, have demonstrated, Britain's colonial

⁹⁶ S. Amato, 'The White Elephant in London', pp. 31-32.

⁹⁷ P. B. Pollak, *Empires in Collision: Anglo-Burmese Relations in the Mid-Nineteenth Century* (London: Greenwood, 1979), pp. 9-38, 67-86.

⁹⁸ C. L. Keeton, *King Thebaw and the Ecological Rape of Burma: The Political and Commercial Struggle Between British India and French Indo-China in Burma, 1878-1886* (Delhi: Manohar Book Service, 1974), pp. 163-198; D. P. Singhal, *The Annexation of Upper Burma* (Singapore: Eastern University Press, 1960).

⁹⁹ S. L. Keck, *British Burma in the New Century, 1895-1918* (London: Palgrave, 2015), p. 2; S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', p. 33.

ambitions throughout the world were made possible and then sustained as much by these cultural technologies as by the more obvious and brutal modes of conquest.¹⁰⁰ Indeed, orientalist accounts not only propagated Britain's colonial ambitions in Burma but also formulated misleading definitions of white elephants, describing them as rare albino elephants that were worshipped. In one account, for instance, diplomat Frederick Neale noted that white elephants were the 'most revered of all...under these trees, a whole posse of Siamese priests, clad in gamboge-dyed dresses, were chaunting laudatory verses about the great white elephant'.¹⁰¹ Frank Vincent went one step further, dedicating a whole chapter to the topic, inadvertently reinventing the white elephants' social and historical significance. The white elephant 'has long been an appendage to the Burman state', he stated, and that in 1582, Ralph Fitch, one of the earliest English travellers to describe South East Asia, spoke 'of the king at that time say[ing]...among the rest he hath foure white elephants, which are very strange and rare, for there is none other king that hath them but he'.¹⁰²

Observations fixated on the colouration of these elephants, suggesting they were worshiped because of their whiteness and, by implication, their purity. Such tropes appeared in travel writings with 'numbing repetition', employing varying degrees of sensationalism that reinforced the white elephants' exceptional status amidst wider cultural projections.¹⁰³ Such repetition, according to Amato, informed the definition of 'a white elephant' in the English language – an object or scheme considered to be without use or value – thus misrepresenting real white elephants as a pure white animal 'quite at odds with the meanings Buddhists ascribed to the animal'.¹⁰⁴ Through these orientalist accounts,

¹⁰⁰ B. S. Cohn, *Colonialism and Its Forms of Knowledge: The British in India* (Princeton: Princeton University Press, 1996), pp. ix, 76-105; E. W. Said, *Culture & Imperialism* (London: Vintage Books, 1994).

¹⁰¹ F. A. Neale, *Narrative of a Residence at the Capital of the Kingdom of Siam: With a Description of the Manners, Customs, and Laws of the Modern Siamese* (London: Office of the National Illustrated Library, 1852), pp. 98-99.

 ¹⁰² F. Vincent, *The Land of the White Elephant: Sights and Scenes in South-Eastern Asia* (London: Sampson, 1873), pp. 65-66. E. Hobsbawm, 'Introduction: Inventing Traditions', in *The Invention of Tradition*, ed. E. Hobsbawm & T. Ranger (Cambridge: CUP, 2012), pp. 1-14.
 ¹⁰³ M. L. Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 2007), pp. 3-5. W. R. Winston, *Four Years in Upper Burma* (London: C. H. Kelly, 1892), pp. 26-27; F. Vincent, *The Land of the White Elephant*, pp. 65-66.

¹⁰⁴ C. Ammer, *The American Heritage Dictionary and Idioms: American English Idiomatic Expressions & Phrases* (New York: Houghton Mufflin, 2013), p. 495; S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', p. 35. In nineteenth

expectations on seeing a pure white elephant at the zoo were highly anticipated, as the appellation of whiteness and its veneration, supposedly confirmed through travelogues, were seen to uphold white supremacy ideologies. Through this context, Barnum tried to dramatize the English meaning of a white elephant via the exhibition of Taoung Taloung at London Zoo.

When Taoung Taloung arrived at Liverpool's Waterloo Dock in January 1884 there was a flurry of excitement, with reporters anxious to get a glimpse of the elephant. Speaking to Charles White, who was Barnum's agents in charge of the elephant's journey from Burma, reporters pried to know how the party had arrived in England. According to White, he had been sent to Burma in August 1883 to collect the beast, and that there was:

[...] a party of seven of us when we left Mandalay, four whites and three natives. The march from Mandalay to a little cluster of native huts opposite Moulmein, on the Irrawaddy, took fifteen days. From there the party marched to Rangoon, the whole journey taking twenty-five days, and the distance traversed being some 600 miles. We rode down on elephants – yes on the white elephant too. The path was cut through jungle, and a guide was with us at night. We camped pleasantly enough with our blankets around us. The sacred beast was never left then, for we were always in danger in spite of the guard granted by the Burmese King, and I was mighty thankful when my task was done. He is certainly the finest beast…he was as skittish as a young lamb from the first, and behaved himself admirably.¹⁰⁵

By 17th January 1884, Taoung Taloung was safely disembarked and ready to leave for London. However, reporters were somewhat disappointed at the sight of the elephant. *The Times* stated, 'when I was taken to see the white elephant, I naturally expected to see an albino – that is to say, an animal entirely white or faint pink'.¹⁰⁶ Instead, all they saw was 'an elephant that was dirty grey in colour, with a few pinkish spots' on his face and trunk [figure 17].¹⁰⁷ Other newspapers were just as frank, reporting 'there is no such thing as a white elephant'.¹⁰⁸

Mercury, 19 January, 1884, p. 3.

century Hindu and Buddhist cosmology, white elephants were ancient religious symbols closely tied to concepts of righteous kinship. A ruler possessing one would be recognised as an exalted and righteous monarch. White elephants were symbols of legitimate rule. Owning one was a symbol of sacred approval, but if one were to die it would be judged as a bad omen. For this reason white elephants were not worshipped, but were still symbols of the divine. ¹⁰⁵ 'Mr Barnum's White Elephant', *The Croydon Express & Norwood, Penge, & Mitcham*

¹⁰⁶ 'To the Editor of the Times', *The Times*, 23 January 1884.

¹⁰⁷ L. Harding, *Elephant Story*, p. 110.

¹⁰⁸ 'The White Elephant', *ILN*, 26 January 1884, p. 78.

Onlookers found him to be insufficiently white and virtually indistinguishable from the other elephants. Unimpressed with his natural complexion, Taoung Taloung's authenticity was immediately called into question, as well as the sanctity of his whiteness and the connotations of racial superiority associated with white elephants. As a result, numerous scholars, scientists, and 'men of eminence' chimed in on the debate regarding his genuineness, offering different explanations for his deficient whiteness, linking their justifications to the elephant's monetary value and orientalist understandings of Buddhist religious practices.¹⁰⁹

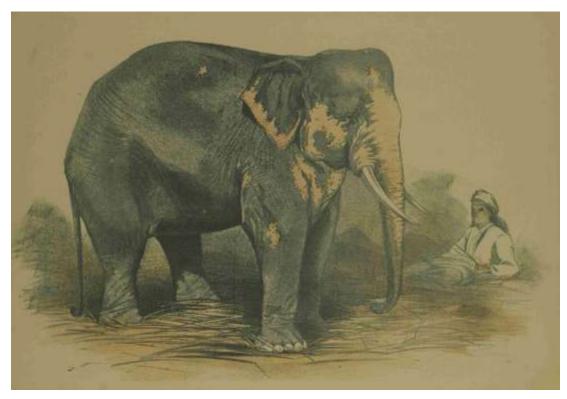


Figure 17. 'The Burmese White Elephant "Toung Taloung", *Illustrated London News*, January 26, 1884 – Extract Supplement.

Professor William Flower (President of the ZSL 1879-1899) and Balmanno Squire were at the forefront of this debate, suggesting Taoung Taloung was not a pale variety of a new subspecies of elephant but simply an individual with a skin deficiency.¹¹⁰ Flower advocated the elephant had a skin defect approaching albinism, whereas Squire believed it was leukoderma.¹¹¹ Claiming to have

¹⁰⁹ S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', pp. 39-41.

¹¹⁰ 'Letter to the Editor', *The Times*, 21 January 1884.

¹¹¹ ZSLA, SMM, 5 February 1884.

previously witnessed this affliction in other cases, Squire suggested the disease was more obvious amongst 'the black races of man, who go about more or less completely unclothed'.¹¹² His assessment compared Taoung Taloung to a 'wellmarked example of the piebald negro', likening the animal to black human beings and racial medical practices.¹¹³ For Squire, both the white elephant and black people diagnosed with leukoderma shared a kind of 'qualified' whiteness that serves to distinguish them from "full-blooded" black bodies', but stopped short of aligning them with the privileged white identity Squire himself possessed.¹¹⁴ Anthropomorphic associations thus served as a means to justify and distinguish the white elephant, linking Taoung Taloung to the other nineteenth century truisms of elephants in relation to the so-called races of man. Similar comparisons circulated in the press, with one stating, he is a white elephant because he is not white; 'now it would not be literally accurate to say of an Ethiopian belle that she was fair complexioned on the strength of her ivory teeth, and there seems little more warrant for the hue in the ivory toenails of our [elephantine] visitor'.¹¹⁵ For onlookers, Taoung Taloung's appearance caused a great amount of uncertainty, destabilising racial connotations of whiteness in the eyes of the debaters. In essence, the problem presented by the elephant's coloration was linked to the paranoid fears of miscegenation and racial hybridity.¹¹⁶ Nevertheless, over 90,000 visitors still came to see the elephant, either to confirm he was a 'white' elephant or to judge his appearance a fraudulent trick by Barnum.¹¹⁷

Authenticity and trickery were key elements in Taoung Taloung's display, but behind these forms of legitimacy and deception were a number of comparisons with other elephants. The larger tacit of Barnum once again meddling with the ZSL helped drum up some of this anti-American sentiment, associating Taoung Taloung with Barnum's previous endeavour to remove Jumbo from the gardens. It had only been two years since the sale of Jumbo and

¹¹² S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', p. 45.

¹¹³ 'Letter to the Editor', *The Times*, 21 January 1884.

¹¹⁴ R. Bullen, 'Race and the White Elephant War of 1884', *The Public Domain Review* (Oct., 2017), https://publicdomainreview.org/essay/race-and-the-white-elephant-war-of-1884.

¹¹⁵ Wells Journal, 24 January 1884, p. 2; *Truth*, 14 February 1884, pp. 253-254.

¹¹⁶ R. Bullen, 'Race and the White Elephant War of 1884', The Public Domain Review (Oct.,

^{2017),} https://publicdomainreview.org/essay/race-and-the-white-elephant-war-of-1884.

¹¹⁷ London Zoo Daily Occurrences, 16 January to 12 March 1884, ZSLA, GB 0818 QAA/QAAA.

Jumbomania that followed, so it was almost inevitable that attributions and comparisons started to emerge given Barnum was at the heart of that scandal too. The *Evening Standard* wrote, 'a view of Mr Barnum's white, or spotted, or brown, or cream-coloured elephant...is not likely to take the place of Jumbo in the Cockney affection'.¹¹⁸ Size was what the public admired, the article continued, and rather than the dubious sanctity of an infected white elephant, Taoung Taloung was described as an ordinary elephant in point of bulk. Their 'love for Jumbo, was the unforced result of long association...Young Taoung, however, like Mr. George comes rather as a disturber... hav[ing] no hold on the children'.¹¹⁹ By comparison, the more sympathetic *American Register* argued that Barnum should be congratulated on his Naples yellow-coloured pachyderm, suggesting it was received with enthusiasm, and that Jumbo's trunk was out of joint.¹²⁰ Various colloquies were written, including a conversation between Jumbo and Taloung stating:

Says Taoung to Jumbo, talking of the times, "I'm very glad *we* are not men, they're most preposterous mines. They'll worship any brand-new god, Barnum, or George, or Mumbo. I find the midgets mighty odd." "Oh, right you are!" says Jumbo.

Says Jumbo to Taoung, "Last year they wept for *me*, And now they're running after *you*, a greater fraud can't be. The pendulum of their wild wits 'Twas Proteus, I should say, who hung. They beat rogue-elephants to bits!" "What's that to *us*!" says Taoung.¹²¹

Other illustrators made similar quips in the form of caricatures, depicting artists following Taoung Taloung to London with a small picture of an elephant and howdah amongst their artwork (probably Jumbo but possibly Jung Perchad) with the caption, 'Don't forget your old friend'.¹²² Mr Davis, who was Barnum's agent that coordinated Jumbo's departure, was also put in charge of Taoung Taloung once Charles White had left; again, this mirrored Barnum's previous engagement

¹¹⁸ The Eastern Evening News, 19 January 1884, p. 2.

¹¹⁹ The Eastern Evening News, 19 January 1884, p. 2.

¹²⁰ 'Here and There' *The American Register*, 19 January 1884, p. 10.

¹²¹ 'Jumbo and Taoung', *Paisley and Renfrewshire Gazette*, 9 February 1884, p. 2.

¹²² 'The White Elephant', ILN, 26 January 1884, p. 78.

with the ZSL. If not as popular as Jumbo the *Yorkshire Post* declared, Taoung Taloung was 'sufficiently interesting to draw a crowd', but one thing stood for certain, he 'was not white... [he is] literally the darkest elephant in the whole collection'.¹²³

Most commentators during Taoung Taloung's stay fixated on his individuality as an exceptional case, largely focusing on the colour of his skin. Moreover, in a bid to fend off the criticism Barnum even relied on Taoung Taloung's Burmese handler, Raom Raddi, and two 'Burmese priests', Moung Bah Chone and Hpo Choe, to signify the elephant's religious importance. The intention was to play on the British public's preconceptions of a white elephant being sacred. Like the debate on the elephant's whiteness, however, when Moung Bah Chone and Hpo Choe performed a religious ceremony in the gardens' lecture-room, it received stern opposition from ZSL fellows.¹²⁴ Many fellows were furious that it had been allowed to take place, resulting in a number of complaints to the secretary. Benjamin Hill Evans even argued it was ridiculous that the Society had even accepted the elephant in the first place.¹²⁵ Frederic Brine, on the other hand, wrote that it was such a pity that the Society should again be connected to Barnum and his agents, who, throughout the entire episode, had exhibited nothing but falsehood and deceit.¹²⁶ Their letters expressed concerns that the ZSL was once again degrading itself, voicing xenophobic remarks about Barnum and regurgitating reactions similar to those surrounding Jumbo's departure.

Emotions continued to run high for the remainder of Taoung Taloung's time at the zoo. However, in a rather surprising turn of events, just before Taoung Taloung was due to depart for America, the elephant received a stark reappraisal in the press, whom began to describe him as an elephant that 'befitted his claims to distinction'.¹²⁷ At a time when animal worship was fashionable, the *Edinburgh*

¹²³ Yorkshire Post and Leeds Intelligencer, 1 February 1884, p. 4.

¹²⁴ 'The Burmese "White Elephant", *ILN*, 2 February 1884, pp. 100, 102; Joseph Charlton Parr to P. L. Sclater, 26 January 1884, ZSLA, GB 0814 BADP, Joseph Charlton Parr Papers.

¹²⁵ Benjamin Hill Evans to P. L. Sclater, 30 January 1884, ZSLA, GB 0814 BADE, Benjamin Hill Evans Papers.

¹²⁶ Frederic Brine to P. L. Sclater, 31 January 1884, ZSLA, GB 0814 BADB, Frederic Brine Papers.

¹²⁷ S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', p. 42.

Evening News joked, the British public, or rather the metropolitan public with almost one accord, bowed the knee to Jumbo and Taoung Taloung.¹²⁸ His mild temper was seen to exemplify his rank as 'a high caste-elephant', judging him to have behaved with equanimity and rarely condescending to eat common hay and oats.¹²⁹ The *Pall Mall Gazette* even implied his pigmentation had somehow changed and become whiter, noting his condition had greatly improved 'not only in flesh but in colour, being now very light ash'.¹³⁰ Like the March wind, he came in like a lion but went out like a lamb.¹³¹ Regardless of the storms that raged around him, the much abused Taoung Taloung fell into the '[British] ways with placidity', becoming 'keenly alive to the merits of English hay'.¹³² His stay was decidedly beneficial to him in more ways than one. Over 7,000 visitors came to see him on the last Monday before his departure, with well-wishers bidding him fair passage and that he may not, 'like another celebrity of equal merit, be "disappointed with the Atlantic".¹³³

On 29th February, Mr Davis began his preparations for Taoung Taloung's removal, and in less than two weeks, the elephant was ready to leave for America.¹³⁴ In the early hours of 12th March, he was placed on the van that had been specially strengthened and used when he had arrived in Liverpool, and taken out of the zoo. A small procession formed, and the cavalcade made its way through central London, going via Albany Street, through Russell Square, into Clerkenwell Road, down the Commercial Road, and eventually reaching Millwall Docks at nine o'clock. The procession (almost two years to the day) was reminiscent of Jumbo's departure, but unlike that previous sensational elephant, the streets were completely deserted. Taoung Taloung was subsequently lifted on to a river barge and carried to the *Lydian Monarch* – incidentally, the sister ship that Jumbo had used in 1882. From here they waited until the necessary preparations had been made, and at half-past one in the afternoon the cranes

¹²⁸ Edinburgh Evening News, 16 February 1884, p. 2.

¹²⁹ S. Amato, 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', p. 42.

¹³⁰ 'Mr Barnum's "White Elephant", *Pall Mall Gazette*, 11 March 1884, p. 9.

¹³¹ 'The Last of Toung Taloung', *The Chard and Ilminster News*, 22 March 1884, p. 3.

¹³² 'The Last of Toung Taloung', *Pall Mall Gazette*, 12 March 1884, p. 11.

¹³³ 'Mr Barnum's "White Elephant", *Pall Mall Gazette*, 11 March 1884, p. 9; 'The Last of Toung Taloung', *Pall Mall Gazette*, 12 March 1884, p. 11.

¹³⁴ J. J. Davis to P. L. Sclater, 29 February 1884, ZSLA, GB 0814 BADD, J. J. Davis Papers.

began their work. In little more than a quarter of an hour, the elephant was safely on board the twin-deck ship, and the white elephant sailed for America.

Not able to be ridden by the public whilst in the zoo – he was on deposit and therefore not obliged to perform these tasks – Taoung Taloung was in many ways treated differently from the other elephants exhibited in the zoo. Viewed as a distinct individual, Barnum's white elephant was received as an exceptional animal, first vilified and later admired by the public. Surrounded by four other elephants (Alice, Jung Perchad, Suffa Culli, and Jingo) who were all already wellestablished members of this fictitious herd, it is somewhat unsurprising to see why Taoung Taloung was not immediately accepted into this collective arrangement. Spending very little time in the gardens, his fleeting visit was a golden opportunity for Barnum – as a known trickster – to fuel the subsequent authenticity debate and frenzy that appeared in the press. Any publicity was good publicity to Barnum, and so the debate was an opportunity for him to play up to British preconceptions of a white elephant, using Raddi and the two other priests to expose Taoung Taloung's supposed religious importance. Visibly different from the other elephants, Taoung Taloung was medically qualified in conjunction with anthropomorphic associations, suitably categorising him alongside other nineteenth century truisms of African and Asian elephants. Furthermore, just like Jumbo before him and Jung Perchad still present, Taoung Taloung's residency at the zoo somewhat changed his audience's perception, making him a more respectable elephant in the eyes of the public. Like Jumbo, the gardens acted as a site that could transubstantiate the white elephant into an adopted subject of Victorian sensibilities, to some extent bringing Taoung Taloung into the collective fold. Although fraught with controversy, the case of Taoung Taloung accentuated how different elephant subspecies were understood in relation to one another, allegorically rejecting some as a result of their distinctiveness, whilst others were iconised and sympathetically assimilated.

Conclusion: The elephant experience

The departure of Taoung Taloung was not the end of Barnum's collaboration with the ZSL, and in 1886 Barnum purchased Jumbo's 'wife', Alice.¹³⁵ To the Society, she was now surplus to requirement, and like Taoung Taloung, her name was long 'associated with that of "Jumbo".¹³⁶ Her departure was reported with discernible elephantine comparisons, judging the price Barnum paid for her (£200) to be a considerable drop from the £2000 paid for Jumbo. Nevertheless, a large crowd followed the conveyance to Millwall Docks to bid farewell to yet 'another idol...in the Zoological Gardens', who was now destined to 'fill the void in Barnum's mammoth collection caused through the untimely death of Jumbo'.¹³⁷ To the public, she would go on to anthropomorphically grieve the body of her deceased 'husband', caressing his trunk in hers in a cautious but affectionate manner, later going back to her quarters to mourn.¹³⁸ Like the other elephants, her individuality was shaped and constructed in relation to the other elephants exhibited around her.

In linking her departure from the zoo in 1886 to the wider concerns of this chapter, it is perhaps fitting to end with another excerpt from an Indian observer who also visited the zoological gardens in 1886, just a few months after Alice departed. Romesh Chunder Dutt, a civil servant and key Indian nationalist, visited the London zoological gardens as part of an extended holiday to Europe in the summer of 1886. Unlike his previous visit to England, on this occasion he took his family with him, and in his travelogue, detailed various sights and attractions he saw during their tour across the continent.¹³⁹ Visiting many parts of London, Dutt recalled seeing the National Gallery, Kensington Palace, and Charles Darwin's tomb, but eventually turned his attention to the Zoological Society of London, stating:

¹³⁵ A. D. Bartlett to P. L. Sclater, 27 August 1883, ZSLA, GB 0814 BADB, Abraham Dee Bartlett Papers; P. T. Barnum to A. D. Bartlett, 8 January 1886 & 22/23 March 1886, ZSLA, GB 0814 BADB, Phileas Taylor Barnum Papers.

¹³⁶ West London Observer, 3 April, 1886, p. 5.

¹³⁷ *The Sportsman*, 15 March 1886, p. 2; 'The Elephant "Alice"', *Freeman's Exmouth Journal*, 10 April 1886, p. 2.

¹³⁸ Cheltenham Examiner, 12 May 1886, p. 2.

¹³⁹ R. C. Dutt, *Three Years in Europe 1868 to 1871: With an Account of Subsequent Visits to Europe in 1886 and 1893* (Calcutta: S. K. Lahri, 1896), pp. 123-124.

Far up in the north of London too we often strolled in the Regents Park and by the Primrose Hill, and my children were delighted to see the Zoological Gardens of London in the Regent's Park. The customary ride on elephants, though not new to my children, was not omitted.¹⁴⁰

Like Dasa seven years later, Dutt's account demonstrated how prevalent the elephants were when visiting the zoological gardens, witnessing these animals outside their enclosure space. It is quite plausible that Jung Perchad was the elephant in question, given that Alice had just left the zoo. Not unknown to his children, yet so unlike the mode prevalent in India that Dasa would later remark, Dutt's decision to mention this encounter is an important point of comparison. The elephant rides were an important part of the experience in meeting the elephant(s) in the zoological gardens, influencing how visitors thought about and interacted with them outside the enclosure space. For Dutt and Dasa the elephants were a vivid reminder of their Indian identity, both noting their familiarity with the animal and commenting on the novelty of riding one. For many other visitors, they were also symbols of colonial ambition and control over nature, viewing them as an extension of Britain's influence through their wider cultural connotations.

During these encounters visitors were able to pet the elephants, allowing for physical interactions outside the 'expected' norms of the zoo space. Feeding the elephants, walking beside them, and riding on one were all important components in the elephant experience, creating opportunities for visitors to engage with the animals through different sensory encounters.¹⁴¹ The elephants were part of a collective appreciation that in itself, was moulded and conditioned by their individuality. Racial attitudes towards Asian and African elephants were very prevalent, as shown in the case of Taoung Taloung, impacting how visitors

¹⁴⁰ R. C. Dutt, *Three Years in Europe 1868 to 1871*, p. 113.

¹⁴¹ Elephant rides continued in the Zoo until 1966, when they were stopped due to the danger of sudden noises from aircraft frightening the elephants and causing a potential stampede. Children would never again be able to take a ride on an elephant, the newspapers declared, and the thrill enjoyed by generations of youngsters would be blasted out of existence by the jet age. In a cruel twist of irony, the jumbo jet supplanted old Jumbo. Today, visitors to the Whipsnade Zoo (opened in 1931 and still owned by the ZSL), can still experience the elephants, booking a 'once in a lifetime opportunity' to go behind the scenes and get a chance to feed them in a twenty-minute VIP tour. See, 'Zoo Ends the Elephant Rides', *The People, 22* May, 1966, p. 13. 'Zoo Rides are Out', *Sunday Mirror, 22* May, 1966, p. 3. 'Feed our Elephants - Meet the Elephants' Whipsnade Zoo: Zoo Experiences, https://www.whipsnadezoo.org/plan-yourvisit/zoo-experiences/meet-elephants.

observed and wrote about these animals as individuals and as representatives of different sub-species. Even after Jumbo and Taoung Taloung departed, and Jung Perchad died, the impact of these elephants and the time they spent at the zoo still prevailed, especially for Jumbo. Whilst the physical animal may have left the enclosure space, the impact they had on the collective still resonated with the subsequent residents of the elephant house. This was particularly true for Jung Perchad and other elephants after Jumbo's departure, whose lives were often framed in relation to this former resident.

Although housed in a confined space, the ZSL elephants interacted with each other in multiple ways, both real and imagined, to which the public created anthropomorphic attachments and racial comparisons. Applying this intraspecies lens, albeit through conjectural and somewhat anthropomorphic proxies, historians can find alternative and more innovative ways of writing animal history, breaching the divide between the individual and generic modes of historical narration. These connections fed into a holistic understanding of the elephants in the zoo during the nineteenth century, connecting them through individual characteristics and imagined relational encounters. Through these curated intraspecies interactions, the notion of a herd mentality can be applied to other animals, laying down the groundwork for further study into individual animals within the context of a collective setting. This can also be extended to discussions regarding when and how animals came to the zoo in the first place, seeking to understand which animals were acquired and in what ways these circumstances developed, which the next chapter will discuss.

Chapter IV

'It is a Rare Thing to See a Dead Donkey; Certainly it is Still Rarer to See a Dead Giraffe': Animal Acquisitions and the Jubilee Giraffe, ca. 1897

In 1976, a special symposium was organised to commemorate the work and achievements of the Zoological Society of London as it celebrated its 150th anniversary. The conference was held over the course of two days, covering an array of topics to illustrate the part the ZSL played in the development of zoological knowledge over the previous century and a half. The majority of talks were delivered by staff and fellows of the Society, eventually publishing the papers in an edited volume – The Zoological Society of London, 1826-1976 and Beyond. Following a short introduction by Solly Zuckerman, the then secretary of the ZSL, the first paper explored the global role of the ZSL, and the part overseas Britons played in the development of the Society. In the paper, titled 'The Zoological Society and the British Overseas', R. Fish and I. Montagu discussed a selection of 'distinguished names from among the many British abroad' who helped expand the zoological collection, including Sir Stamford Raffles, Brian Hodgson, and Samuel Tickell, to name a few.¹ Notwithstanding the all-white middle to upper-class male selection, a shortcoming Fish and Montagu both acknowledge, the account covered a rough chronology of zoological donations presented in the first 100 years of the Society's existence. Fish and Montagu argued that without the expansion of empire and the encounters of imperialism, the capabilities of 'this national institution would never have been aroused', as imperial networks facilitated a public interest in zoology that inspired many generations of naturalists and explorers.²

For many zoological gardens established in the nineteenth century, empire played a significant role in the formation of zoological collections, and the gardens of the Zoological Society of London were no exception. The Society's first president was a colonial administrator, and was frequently called a servant of

¹ R. Fish & I. Montagu, 'The Zoological Society and The British Overseas', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 17-48 (p. 17).

² R. Fish & I. Montagu, 'The Zoological Society and The British Overseas', p. 17.

empire, using personal and professional ties to fill the ZSL's menagerie and museum.³ Indeed, in 1840, the ZSL council was able to congratulate its 134 corresponding members for their zeal and services to the Society, describing them as 'a valuable and useful class of associates... [dispersed] over every part of the habitable globe with which the British Empire maintains either colonial or commercial relations'.⁴ Forty years later, on the precipice of the scramble for Africa, *The Daily News* encapsulated a similar sentiment, emphasising the links between zoological gardens and empire, stating:

There is no place more attractive to sightseers than Zoological Gardens...our collection ought to be larger and better than any other. The British Empire comprehends a greater variety of races of men than are subject to any other sway. A complete system of anthropology could be constructed without travelling beyond the limits of the dominion on which the sun never sets...the Queen's rule is as extensive over the races of beasts as of men. Every sort of wild creature in every zone, from the Arctic regions to the tropics, and from the tropics to the Antarctic, inhabits her Empire. A visit to the Zoological Gardens illustrates that variety of the fauna which we may count in a certain sense as our fellow subjects no less than our fellow creatures. It is natural that an Empire which is to a large extent insular and colonial should be rich in its collections of animals.⁵

Considered against the backdrop of the gardens' aesthetic, the propaganda of empire in British popular culture, and the zoo inhabitants' association with 'exotic' spaces and distant lands, the zoological gardens was a living embodiment of imperial power. It was an institution involved in the business of extracting animals for Britain, predominantly using imperial connections that maintained, utilised, and developed commercial links to bolster the animal collection in Regent's Park.

How the collection was sustained, however, has remained a vague topic in the historical discourse, especially in relation to the practicalities and sociocultural networks that enticed prospective benefactors to present animals to the

³ A large portion of specimens, mainly from Indonesia and Malaysia, were donated to the Society's museum by Raffles himself. For a catalogue of his donations see, E. T. Bennett chart in S. Raffles, *Memoir of the Life and Public Services of Sir Thomas Stamford Raffles: Particularly in the Government of Java, 1811–1816 and of Bencoolen and its Dependencies, 1817–1824* (London: J. Murray, 1830), pp. 633-697.

P. H. Greenwood, 'The Zoological Society and Ichthyology: 1826-1930', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 85-104 (p. 86).

⁴ RoC (1840), p. 5. Corresponding members were British citizens who resided outside England or Wales, and needed to show a willingness to promote the objects of the Society outside the United Kingdom. They were required to provide the secretary with an address or of some agent in London through whom communications might reach them.

⁵ The Daily Mail, 17 August 1880, p. 5.

gardens. Although Fish and Montagu's list of 'distinguished individuals' is not without merit, the practicalities of acquiring animals from amongst the many other Britons abroad has continued to go unacknowledged. Transporting animals across vastly different regions of the world required an immense amount of dexterity and coordination – whether prearranged or fortuitously planned – as well as various go-betweens, invisible labourers, and transactions throughout the process. The purpose of this chapter is therefore to re-evaluate the means of acquiring animals for London Zoo during the latter half of the nineteenth century, exploring interpersonal networks beyond the so-called 'distinguished individuals' and account for the logistics involved in transporting animals to the gardens. By looking at the animals and middle-men that linked the Society to colonial territories, this chapter intends to explore acquisitions as a process of zoological imperial entanglement. Through these benefactors, the ZSL was able to become an emblem of British power, incorporating elements of cultural imperialism in the gardens whilst maintaining a steady flow of animals from overseas colonies.⁶ This will provide further context for the ongoing debates on social relations, the role of long distance connections and logistics, and the importance of environmental factors in shaping how and why certain animals were presented to the zoo.

The chapter will start with a brief analysis of the zoo's relationship with empire, looking at the different features of the animal trade. Imperial networks have traditionally been seen as a homogenous category, working within a British world-system and almost exclusively fostering a diffusionist perspective that aimed to extract resources. In line with more recent global histories, this chapter argues that the subtexts for animal acquisitions were deeply connected with local trading patterns, and were not only influenced by the benefactors involved but also local conditions and trans-cultural practices. Where the animals were sourced, whether an animal could survive the journey, and the evolving geopolitical circumstances were significant factors in the development of animal procurement. By combining commercial and environmentally conscious histories inherently embedded in the procedures of procuring live animals, the differences in animal trading interactions can be inferred.

⁶ J. M. Mackenzie, *Museums and Empire: Natural History, Human Cultures and Colonial Identity* (Manchester: MUP, 2017), pp. 83, 160.

This will be achieved by discussing the 'valuable and useful class of associates' who supplied the ZSL with animals. Unlike the 'big men' that Fish and Montagu acknowledged, this chapter will investigate two groups of benefactors who were credited with presenting the vast majority of animals to the Society. Framed as in-situ and ex-situ benefactors, these middle-men (they were almost always, but not exclusively, men) acquired specimens through a variety of channels, exploiting local conditions and networks to procure animals for the Society. The former included individuals who were stationed in the localities where the animals naturally lived, ranging from governor-generals and administrative officials to soldiers and explorers stationed abroad. They exploited local terrains to obtain wild animals, adding to the wealth of the ZSL's collection as specific points of contact within the British colonial world. By comparison, exsitu individuals supported the ZSL via alternative means, usually external to the animals' natural habitat. This included members of the royal family, such as Queen Victoria and the Prince of Wales, later King Edward VII, whom, having previously received animals from other persons, would present them to the gardens of the Zoological Society. Royal endorsement created a different kind of global connection, indirectly sustaining the ZSL's credibility at home and abroad, which over time, became an extension of royal privilege. In turn, the Zoological Society became associated with the emerging symbolism of monarchy and empire.

Whilst these groups represent generic categories, to some extent oversimplifying the complexities of colonial entanglement, they did not always work independently of each other. Most notably, both groups came together for the diamond Jubilee in 1897, when a 'jubilee giraffe' was presented to Queen Victoria from the Chief of Batheon in southern Africa. Although it ultimately ended in tragedy – the giraffe died on the threshold of the gardens enclosure – the task of coordinating, collecting, and transporting the giraffe marked a highpoint in the zoo's global affinities amidst a heightened imperial celebration. Colonial administrators, the Colonial Office, royalty (African and British), and the Zoological Society of London worked closely to convey the animal to England. It is possible to further understand the methods employed and the individuals involved in the development of animal acquisitions by investigating these processes. Additionally, it will reveal how environmental conditions and nonhuman actants, such as the jubilee giraffe, influenced which animals were presented to the Zoological Society of London.

'Our collection ought to be larger and better': The logistics of beastly capital

The relationship between zoos and empire has been a prominent theme in the history of zoological gardens, yet, the study of zoological gardens as a site of imperial encounter has received far less attention compared to other metropolitan institutions.⁷ Harriet Ritvo was the first to seriously consider this relationship, arguing London Zoo was an elaborate configuration of Britain's colonial predominance and a symbol of imperial dominion.⁸ Since then, other historians have added to the discussion, arguing nineteenth century zoos were part of the appurtenance of wealth and power that reinforced the hegemonies of empire.⁹ Most of these studies have focused on the iconography of the menageristic display in Europe, viewing the exhibitionary complex as part of a wider imperial culture. Kurt Koenigsberger, for example, has termed this an 'imperial totality', seeing the zoo space as an environment that bolstered power and commanded how things and bodies were arranged for public display.¹⁰ At the height of these convictions, 'extravagance in the form of zoological 'spoils of empire' - hunting trophies, ivory, and menageries that teemed with imported specimens - marked the surpluses generated by imperialists activity', demonstrating the perception of empire as a smoothly integrated whole.¹¹ Evoking a 'Mackenzian moment' of imperial history, these studies have investigated the way zoos propagated

⁷ H. Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987), p. 213.

⁸ H. Ritvo, *The Animal Estate*, p. 208.

⁹ M. H. Robinson, 'Foreword' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. vii-xi; R. Malamud, 'The Problems with Zoos' in *The Oxford Handbook of Animal Studies*, ed. L Kalof (Oxford: OUP, 2017), pp. 387-410 (pp. 401-402).

¹⁰ K. Koenigsberger, *The Novel and the Menagerie: Totality, Englishness, and Empire* (Columbus: Ohio University State Press, 2007), pp. 1-81.

¹¹ K. Koenigsberger, *The Novel and the Menagerie*, p. 25; *The Mackenzie Moment and Imperial History*, ed. S. Barczewski & M. Farr (London: Palgrave, 2019).

imperialist and militarist attitudes in the gardens, illustrating how western zoos advanced a Eurocentric world view in the late-Victorian and Edwardian eras.¹²

More recently, scholars have begun to critique this notion of an 'imperial zoo', implying the relationship between zoos and imperial culture requires nuance. There is now a much greater inclination to study the global evolution of zoos, addressing the development of non-European institutions and transnational aspects of the animal trade and global networks.¹³ Helen Cowie has recently reapproached this issue concerning the ZSL, questioning how far imperial messages were really absorbed by those who visited the gardens. Cowie has argued that many people who visited the zoo may not have given too much thought to these broader representations of power, as the appeal of exhibitions may have stemmed from a fascination with a generic 'exotic', rather than an explicit evocation of empire – at least in some cases.¹⁴ South American specimens, such as the giant anteater displayed in 1853, were occasionally exhibited in the Society, demonstrating that such elicitations extended beyond imperial territories. When people visited the gardens, 'the conclusions they drew could be complex and troubling and did not necessarily reaffirm imperial potency'.¹⁵ Similarly, Takashi Ito has challenged the centrality of empire in early trading networks at the ZSL, viewing them as 'a sequence of fluctuating and amorphous forms of communication that stretched beyond the reach of the British Empire'.¹⁶ Both Cowie and Ito's appraisals have laid bare the relationship

¹²This has not been limited to British zoos either. Donna Mehos, Nigel Rothfels, and Gary Bruce have investigated the roots of colonialism in other zoos, such as the Artis Zoo in the Netherlands, Hagenbeck's Tierpark in Stellingen, and Berlin Zoological Gardens, to name just a few. See, D. Mehos, *Science and Culture for Members Only: The Amsterdam Zoo Artis in the Nineteenth Century* (Amsterdam: Amsterdam University Press, 2006), pp. 125-129; N. Rothfels, *Savages and Beasts: The Birth of the Modern Zoo* (Baltimore: JHUP, 2002); G. Bruce, *Through the Lion Gate: A History of the Berlin Zoo* (Oxford: OUP, 2017).

¹³ See, O. Hochadel, 'A Global Player From the South: The Jardín Zoológico de Buenos Aires and The Transnational Network of Zoos in the Early Twentieth Century', *História, Ciências, Saúde – Manguinhos*, Vol. 29, No. 3 (July-Sept 2022), pp. 789-812.

¹⁴ Cowie explores the question of zoological content, a point that did not necessarily emanate purely from a colonial context. Many South American animals were exhibited, yet large areas of South American was not formally colonised. See, H. Cowie, 'Exhibiting Animals: Zoos,

Menageries and Circuses', in *The Routledge Companion to Animal-Human History*, ed. H. Kean & P. Howell (London: Routledge, 2019), pp. 298-321 (p. 301).

¹⁵ H. Cowie, 'Exhibiting Animals: Zoos, Menageries and Circuses', p. 301.

¹⁶ T. Ito, *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014), p. 169.

between empire and the ZSL, implying that imperial overlap requires more careful probing.

The above-mentioned cases refer to two distinct activities that enabled the zoo to operate, namely the collection of animals and the display of animals. Neither Ito nor Cowie dismiss the notion that the British Empire contributed to either of these practices, but the disambiguation of the term 'empire' sits somewhat unevenly across their case studies. This is certainly not a reason to dismiss their arguments, but merely to note that the application and nuances of colonialism need careful probing too. Ito's discussion of the giraffes exhibited in 1836, used to exemplify a trading-network beyond empire, for example, exposes the contextual and temporal intricacies of empire, but, to some extent, forgoes the fact that African colonial experiences changed dramatically over the century. In a similar way, Cowie's case of the anteater risks sideling the influences of informal empire tied to other specimens from South America, particularly as investment colonialism grew in the mid-nineteenth century.¹⁷ Nevertheless, both critiques offer positive challenges to the position of empire within zoo studies - a historiographical outlook that is rightly being scrutinised – but in turn, there is also room for expanding the discussion on the evolving colonial circumstances surrounding animal trading cultures, especially over the longue durée.¹⁸ It is, perhaps, more reasonable to consider colonial connections as the dominant yet most adaptive relationship, one where the ZSL utilised Britain's varying colonial networks - both formal and informal - as the main source of its animal procurement process at given times and in certain circumstances.¹⁹

This does not relinquish the critiques of empire in zoo studies, but, instead, aims to reapproach these dynamics by considering zoos in the developmental

¹⁷ Cowie has since addressed this in a recent publication, emphasising the tensions between imperial and colonial science in a comparative case study of two anteaters in 1776 and 1853. See, H. Cowie, 'A Tale of Two Anteaters: Madrid 1776 and London 1853', *Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 591-614 (pp. 602, 608). Also see, D. Rock, *The British in Argentina: Commerce, Settlers and Power, 1800-2000* (Cham: Palgrave, 2019), pp. 81-124, 169-204.

¹⁸ Both Cowie and Ito's discussions roughly focus on the first 25 years of the institution's history, arguably the beginning of Britain's colonial shift from mercantilism to world-system. This is not to diminish their arguments but merely to draw attention to the later forms of imperialism and empire-building that took hold after the periods Cowie and Ito discuss.

¹⁹ G. Bruce, *Through the Lion Gate*, p. 4.

context of empire, rather than the other way round. Although this may seem like a rather unnecessary inversion, it averts shoehorning global contexts into homogenous categories, thereby imposing static understandings of empire onto the context of zoological gardens. It also leaves room for exploring the transformative deployment of colonialism as a projection of power, emerging in particular moments and over time that was, in many cases, entwined with other interactions and circumstances. To paraphrase Jane Burbank and Frederick Cooper, imperialism was always on the verge of becoming something else, a perspective that reconfigures interpretations of inter-empire and global competition.²⁰ There is always a risk of exaggerating the supposed 'urge to colonise that captured European publics by the 1870s, but there were entrepreneurs, missionaries, and military men who were active colonisers throughout the century and who proudly publicised their enterprise'.²¹ Even without a concentrated and conscious effort to colonise the world, 'rivalries among a small number of European empire-states, the vulnerabilities of Ottoman and Chinese empires, and Japanese empire-building were all changing the geopolitics of empire', only later evolving into an extension or intensification of direct colonial rule.²² Such critiques can be beneficial to zoo histories, reorientating zoo studies within global-imperial studies to engage with discourses that can include environmental and non-human animal factors.²³ Like other institutions, understanding how and in what ways the ZSL engaged with and responded to benefactors who 'tapp[ed] into Britain's vast colonial networks' can help re-evaluate networks of empire, viewing them as the dominant, yet nonexclusive, mode of procuring animals for the ZSL.²⁴

The process of collecting animals aptly fits within this question of colonial commercial accessibility, as it was a crucial activity that enabled the ZSL to operate. How this actually worked in practice, however, has often been left to one

²¹ My emphasis added. See, J. Burbank & F. Cooper, *Empires in World History*, p. 306.

²³ For more on the imperial turn see, A. Burton, 'Introduction: On the Inadequacy and the Indispensability of the Nation', in *After the Imperial Turn: Thinking with and Through the Nation*, ed. A. Burton (Durham, NC: Duke University Press, 2003), pp. 1-23.
²⁴ C. Burton, Through the Lion Cote, p. 4.

²⁴ G. Bruce, *Through the Lion Gate*, p. 4.

²⁰ J. Burbank & F. Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton: Princeton University Press, 2007), p. 306. Also see, T. Ballantyne, *Webs of Empire: Locating New Zealand's Colonial Past* (Toronto: UBC Press, 2012).

²² J. Burbank & F. Cooper, *Empires in World History*, p. 306.

side. The task of getting animals to the ZSL gardens was a complex process of inter-dependence and entanglement, which differed from animal to animal and region to region. In the crudest sense, animals were captured, placed onboard ships, and taken to the zoo; but even this overlooks the complexities of the practice. For example, the giraffes and anteater that Ito and Cowie discussed adhere to this assessment, but they were clearly not captured in the same way. Not only are they different species, but they were sourced from completely different habitats, socio-temporal circumstances, and humans actants. The guiding principle derives from Martha Chaiklin and Philip Gooding's argument that environments underpinned human-animal relations throughout global animal-human interactions and trading patterns.²⁵ Drawing on examples from the Indian Ocean World, Chaiklin and Gooding have shown that regional structures, such as fluctuations in the monsoon season and periods of draught, were crucial to a trade's functioning. At various times these factors affected bushmeat trades, spread diseases, contributed to an expansion in ivory trading in Northeast Africa, and increased demand for war-animals, such as horses, to secure scarce resources.²⁶ This was also the case for animals presented to the ZSL, including the jubilee giraffe which was affected by the rinderpest outbreak in 1896-7. Modes of acquisition were starkly different across ecological settings, a socioenvironmental perspective that was influenced by the humans involved, but also where the animals lived, where they could survive transportation (or not), and locales that lacked certain resources.

Natural environments formed the settings in which most animals were acquired by the ZSL, and were where the initial points of human-animal interactions began.²⁷ Animals were captured using a variety of techniques, with humans often adapting techniques to fit the surrounding environments. This included constructing traps for specific species, tracking entire herds on foot or horseback, capturing multiple animals at a time, and indiscriminately killing adults

²⁵ M. Chaiklin & P. Gooding, 'Introduction: Investigating Animals, Their Products, and Their Trades in the Indian Ocean World' in *Animal Trading Histories in the Indian Ocean World*, ed. M. Chaiklin, P. Gooding & G. Campbell (London: Palgrave, 2020), pp. 1-26.

²⁶ M. Chaiklin & P. Gooding, 'Introduction', p. 15.

²⁷ Unlike the majority of animals exhibited in zoos today, most animals presented to the ZSL during the nineteenth century were acquired in the wild. However, this was not always the case, and some were bred in captivity. For instance, Suffa Culli, an Asian elephant presented in 1876 was probably born in a Khedda (a stockade trap used to capture or control elephants) in India.

to acquire their young [figure 18].²⁸ Naturally, terrestrial practices differed from maritime ones, but there was just as much variance in procurements from littoral zones as there was from mountainous regions. Each habitat required different techniques, with practices generally varying in terms of success. If captured, however, animals were transported across vast distances, either being walked or carried hundreds of miles from inland savannahs, dense rainforests, or other terrains to human dominated centres. For big game caravans in Africa, this required an immense amount of preparation, both logistically and geographically, as men, pack-saddled camels, and other draught animals were moved through the landscape to capture animals in relatively remote areas.²⁹ For instance, it would take a dromedary eight days or 'fourteen for a strong loaded camel, and twenty as a maximum for troops with many impedimenta' to travel 270 miles along the 'regular caravan route' from Suakin to Kassala in North Sudan.³⁰ Even relatively short distances could be challenging, which, like the Suakin-Kassala route, required the gentlest driving of 'young elephants and other wild animals for the menageries of Europe... [for they could] hardly be delivered at any other port on the Red Sea or in Lower Egypt, on account of the difficulties of the march'.³¹ Acquisitions could be costly, time consuming, and if an animal died en route,

²⁸ It was easier to secure and transport younger animals. Nets and decoys were also widely used. See, P. J. Bowler, 'Natural History and the Raj: Popular Wildlife Literature for Readers in Britain and the British Empire in India (1858-1947)', *ANH*, Vol. 49, Iss. 1 (April 2022), pp. 189-203.

²⁹ Whole caravans were used, with 'each man falling into his proper position at the appointed time.... a giraffe taking three persons, an elephant from two to four, an antelope two, and an ostrich, if large, also two. The smaller animals, such as young lions, panthers, baboons, pigs or birds, are carried in cages roughly constructed on the spot; and these cages are placed on the backs of camels. Right in the midst of our procession there marches a group of camels harnessed in pairs. Over the pack-saddles of each pair are laid two stout poles, and from these poles, between the two animals, hangs a large cage, made of strong rods bound together with strips of hide. Each cage contains a young hippopotamus, who, in spite of his youth, weighs with his cage well over a quarter of a ton. Each of these distinguished travellers requires a large party to wait upon him, for in addition to the two camels which convey him along, six or eight others are required for carrying the water which he demands continuously throughout the journey, as also for the bath...hundreds of sheep and goats are driven along with the procession; the nanny goats providing a constant supply of milk for the young animals, and the remainder being used as food for the carnivores'. See, C. Hagenbeck, *Beasts and Men, being Carl Hagenbeck's Experiences for Half a Century Among Wild Animals* (London: Longmans, 1912), p. 66.

³⁰ According to Mr Rassam and Dr. Blanc, who had experienced this route, it was known as 'the only route adopted by the Egyptians'. See, 'The Abyssinian Captives' *The Illustrated Weekly News*, 10 August 1867, p. 422.

³¹ 'The Abyssinian Captives' *The Illustrated Weekly News*, 10 August 1867, p. 422.

financially ruinous – factors which influenced how, when, and if an animals could be conveyed to an urban centre.³²

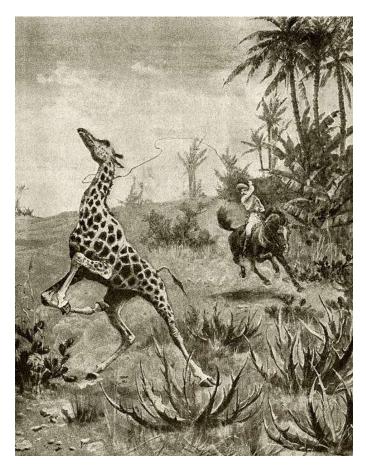


Figure 18. A Victorian hunter lassoing a giraffe by the neck in the African savanna. From, *The Children's Friend - A Monthly Magazine for Boys & Girls*, Vol. XXXIX, Jan-Dec 1899 (London: S.W. Partridge, 1899).

Despite the potential drawbacks, and depending on how these methods were executed, animals were usually taken directly to human centres, including suburban settlements, cities, ports, and docklands, either to reside in those settings or be conveyed to another destination. Once industrial transportation links became more prevalent, railways made it easier to transport animals across these spaces, whilst improvements in shipping made it quicker to get animals

³² There is a tendency to overemphasis a terracentric view of animal procurements, but aquatic ecosystems were also part of this process of animal acquisitions, especially as aquariums grew in popularity. For more on the implications of terracentric and aquacentric histories see, R. F. Buschmann, 'Oceans of World History: Delineating Aquacentric Notions in the Global Past', *History Compass*, Vol. 2, No. 1 (January 2004), pp. 1-10 (p. 1); M. S. Reidy, *Tides of History: Ocean Science and Her Majesty's Navy* (Chicago: University of Chicago Press, 2008), p. 10; R. Mukherjee, 'Escape from Terracentrism: Writing a Water History', *Indian Historical Review*, Vol. 41, No. 1 (June 2014), pp. 87–101.

across oceans – often the most perilous part of a journey.³³ However, even within these human-dominated zones, environmental factors and modes of interaction dictated how animals were treated, including how they were organised, housed, and fed. Indirect commercial activites also meant animals experienced different types of management, sometimes boarding multiple ships in the course of a single journey. The nature of these spatial phases were important nodal points in the animal trade's broadest scope, exposing actants – both human and nonhuman - to transfers of power, interaction, and knowledge systems throughout the process. Management practices varied from region to region and were inherently transitory in nature, with different people being involved at different stages of the process. As a nexus of terrestrial and maritime entanglements, environmental phases fluctuated across these temporal-spatial paradigms; the logistics of animal procurements were incredibly complex even at an individual animal level. Captive specimens could change owners, escape, get injured, or be treated differently owing to certain human beliefs or religious practices; they experienced different levels of care from those who tried to manage them. These processes helped facilitate different kinds of communication, varying points of contact and exchange, ranging from explicit correspondence with the ZSL to indirect forms of contact with the colonised world.

Unravelling the different stages of the acquisition process is vital for addressing the transnational character of the animal trade in the nineteenth century, as different parts of the process were dependent on various factors. The complexity of these interactions stemmed from environmental and socio-cultural factors, throwing light on how the process of animal acquisitions changed over time. Furthermore, as the transformative deployment of colonialism took hold, the hallmarks of empire also began to influence these relationships, which, in turn, impacted the processes of animal acquisitions. Although there was never a homogenous practice for capturing animals and sending them to the ZSL, as commercial and imperial links expanded, individuals associated with empire became ever more engrained in the process of presenting animals to the Zoological Society. The following section will therefore analyse the 'valuable and

³³ For examples of transporting horses. See, J. Blancou & I. Parsonson, 'Historical perspectives on long distance transport of animals', *Veterinaria Italiana*, Vol. 44, No. 1 (2008), pp. 19-30.

useful class of associates' who supplied the ZSL with the majority animals in the collection. Framed as in-situ and ex-situ benefactors, the section will explore the different types of individuals who were credited with acquiring specimens for the ZSL, investigating individuals who exploited local conditions and utilised interpersonal relations to procure animals for the ZSL.

A valuable and useful class of associates: Colonial benefactors and animal gifts

Most of the animals that entered the gardens of the Zoological Society arrived by one of five routes, either as a gift or donation (also referred to as presentation), purchase, breeding, exchange, or deposit.³⁴ Between 1847 and 1899, presentation was by far the most common way that animals entered the gardens, and were supplied by benefactors who were eager to enrich the Society's collection.³⁵ Until 1900, most of the animals gifted to the Society were presented via colonial benefactors, representing a cohort of individuals from across Britain's overseas territories.³⁶ These individuals were regularly mentioned in the reports of council and, as the largest group of benefactors to the Society, featured prominently in the list of donors to the menagerie, either as one-time benefactors, corresponding members, or honorary members.

Using figures from the committee for the purchase of animals, it is clear that there was a sharp increase in the number of animals presented once the gardens opened to the public, with colonial benefactors predominantly facilitating that rise. In late 1846, the gardens had approximately 900 captive animals and imported 17 new species that year, but by 1865, this had risen to nearly 2000 animals and

³⁴ E. Larsson, "On Deposit": Animal Acquisition at the Zoological Society of London, 1870– 1910', *ANH*, Vol. 48, No. 1 (2021), pp. 1-21 (p. 2).

³⁵ Presentation remained the second most popular method after 1900, when Walter Rothschild popularised the depositing system However, if one were to exclude the animals deposited by Walter Rothschild, animals presented as gifts or donations would have remained the most prominent method. Nevertheless, after 1907 gifts and donations regained their position as the leading method of animal sourcing at the ZSL as the depositing system receded. See graph illustrating the methods by which the Zoological Society of London acquired its animals between 1870 and 1910 in E. Larsson, "On Deposit": Animal Acquisition at the Zoological Society of London', p. 5.

³⁶ E. Larsson, "On Deposit": Animal Acquisition at the Zoological Society of London', p. 2.

75 new species.³⁷ The following year, the guidebook boasted that its 'aviary contained a miscellaneous collection of [smaller birds] from all parts of the world', whilst reptilian representatives could be viewed from 'every region of the world within the temperate parallels and the tropics'.³⁸ The stock of mammals also improved, increasing from 231 in 1856 to approximately 808 mammals in 1898.³⁹ The gardens were slowly transforming into a symbol of British dominance over nature, not just in terms of obtaining and displaying more animals, but also as an emblem of Britain's growing political influence. The breadth of zoological specimens imitated this trend, figuratively filling in the 'cartographic blankness' of the 'dark continent'.⁴⁰ For example, before 1860, less than half the species displayed in the gardens had natural habitats in Australia, India, or South Africa. By comparison, in 1896 more than seventy-five percent of new arrivals were presented from territories associated with the British Empire, and from a much wider range, including Eastern Sudan, West Africa, Egypt, Australia, India, Burma, Penang, Cape Colony, and the Transvaal. Although this ebbed and flowed year on year, there was a discernible link between the animals presented to the gardens and Britain's overseas possessions, a factor that mirrored the individuals who bestowed gifts to the Society, especially colonial administrators.

The role of Britain's colonial administrators is a long and complex narrative that has been seen as a position held by privileged white men maintaining a gendered, racialised, and coercive form of moral authority.⁴¹ Irrespective of whether he – as they were almost invariably male – was known as the collector, the district commissioner, or the government agent, the office of colonial administrator carried empire-wide connotations. Yet despite the titles being as varied as the post holders, colonial administrators were literal field representatives in which the proverbial man-on-the-spot was a symbol of Britain's

³⁷ T. Ito, *London Zoo and the Victorians,* p. 119. There was an increase of approximately 116% in captive animals and 341% in imported species. For more statistical information see 'The Number of Animals and New Species Displayed in the Zoo, 1829-65' chart in Ito's work.

³⁸ P. L. Sclater, *Guide to the Gardens of The Zoological Society of London* (London: Bradbury & Evans, 1866), pp. 9, 46.

 ³⁹ E. Larsson, "On Deposit": Animal Acquisition at the Zoological Society of London', p. 5. See Larsson's work for another graph illustrating the different methods of obtaining animals.
 ⁴⁰ R. McLaughlin, *Reimagining the 'Dark Continent' in Fin de Siècle Literature,* (Edinburgh: Edinburgh University Press, 2012), p. 10.

⁴¹ D. Heath, 'Bureaucracy, Power and Violence in Colonial India', in *Empires and Bureaucracy from Late Antiquity to the Twentieth Century*, ed. P. Crooks & T. H. Parsons (Cambridge: CUP, 2016), pp. 364-390.

imperial presence. As Anthony Kirk-Greene has argued, Britain acquired most of its colonial possessions in the nineteenth century and to list those managed by administrators 'would be like reading a gazetteer of the world'.⁴² Subsequently, as colonial involvement increased, whether by annexation or treaty, so too did the number of colonial administrators, it was a feature that typically shadowed the formal acquisition of territories.⁴³ These developments had a direct impact on the ZSL, as a growing number of administrators became fellows and corresponding members of the Society.

Alongside their official duties, colonial administrators were actively encouraged to take up hobbies, pursuing pastimes to break up the monotony of day-to-day engagements.⁴⁴ Field sports such as shooting, pig-sticking, jackal hunting, and riding were some of the most common activities pursued, but lepidopterology, ornithology, non-economic botany, and a general interest in zoology were also widespread if not as popular.⁴⁵ These activities generally reflected the nature of an administrator's work life, especially for those employed in the forestry departments, who, as a rule, spent a lot of their time outside. Out of all these activities, however, hunting embodied the strongest ideological marker which perpetuated an image of the 'colonising upper-class white man as super-masculine'.⁴⁶ Hunting and other gendered activities did much to sustain this image, but they did not always end in the death of an animal, and some sportsmen spared the lives of their trophies. In his memoirs, Edward Braddon recalled discovering two young tigers that had fallen into a well whilst he was serving in India. Contemplating what to do with them, Braddon noted that one of two things would happen: '(1) [I] would have shot them out of hand, or (2) would have made the proper arrangements for netting them, in view of handing them

 ⁴² A. Kirk-Greene, *Britain's Imperial Administrators* 1858-1966 (London: Macmillan, 2000), p. 25.
 ⁴³ A. Kirk-Greene, *Britain's Imperial* Administrators, p. 25.

⁴⁴ J. A. Auerbach, *Imperial Boredom: Monotony and the British Empire* (Oxford: OUP, 2018), p. 3. The daily routine of colonial life was tedious at best, in which boredom was the overwhelming factor of the day.

⁴⁵ J. Gilmour, *The British in India: Three Centuries of Ambition and Experience* (London: Penguin, 2018), pp. 468-483.

⁴⁶ M. S. S. Pandian, 'Gendered negotiations: hunting and colonialism in the late 19th century Nilgiris', *Contributions to Indian Sociology*, Vol. 29, No. 1-2 (1995), pp. 239-263 (p. 242). Also see, J. Sramek, "Face Him like a Briton": Tiger Hunting, Imperialism, and British Masculinity in Colonial India, 1800-1875', *Victorian Studies*, Vol. 48, No.4 (2006), pp. 659-680.

over to the zoo, or disposing of them to some Indian Jamrach'.⁴⁷ Keeping them as pets was another viable option, but like those caught in the moment, animals were usually later presented to other collections if the owner lost interest or the animal became too costly, too big, or too dangerous to manage.⁴⁸ Nevertheless, through these sorts of activities, colonial administrators became a dependable group of benefactors for the ZSL, providing a steady flow of animals from a range of territories.

At the topmost level were viceroys, governor-generals, colonial governors, and high-commissioners. Typically considered the official mouthpiece of colonies, their roles and responsibilities epitomised what was colloquially referred to 'back home as "our Indian Empire" or "our colonial dependencies"⁴⁹ Animals gifted via high ranking officials became living emblems of the presenter's political influence, a point frequently referenced in the newspapers. The Society's annual reports also made note to these individuals, usually thanking them for their valuable gifts. In 1849 alone, the particular services of Sir Thomas Reade, consulgeneral at Tunis, Charles A. Murray, H.M. consul-general in Egypt, John Thomason, lieutenant-governor of the North West Province of Bengal, his Excellency lieutenant-colonel John William Butterworth, governor of Singapore, and John Drummond Hay, H.M. consul-general at Tangiers were all cited for their additions to the menagerie.⁵⁰

One way these individuals helped advance the ZSL's objectives was by becoming a corresponding members or honorary members of the Society.⁵¹ This

⁴⁷ Braddon later described another encounter, stating 'this was a tiger cub, one of three that I came upon in a patch of grass cover, and the best tempered of the party...then, as the day was closing in, I made my selection of the animal cub, and carried it off in my arms, leaving the other two for their parent...the cub I carried off grew in strength and grace for some months as the pet of my household'. See, E. Braddon, *Thirty Years of Shikar* (London: Blackwood, 1895), pp. 76-77, 314-315.

⁴⁸ Braddon tried keep a panther as a pet, but with less success 'on the side of amiability and more on the side of health'. He later wrote, 'it would stalk any of us, coming upon us by surprise from behind the chairs or from under the table, until it became a matter of surprise when it did not stalk us, and that pet stood generally regarded as an unmitigated nuisance. Then I gave it to a rajah for a small zoological collection, and saw no more of it'. See, E. Braddon, *Thirty Years of Shikar*, p. 316.

⁴⁹ A. Kirk-Greene, *Britain's Imperial Administrators*, p. 203.

⁵⁰ RoC (1849), p. 12.

⁵¹ Approximately 2000 people were allowed to be corresponding members of the Zoological Society of London (CMZS) at any one time. Honorary members, on the other hand, were eminent and distinguished persons, subjects of the United Kingdom, and zealous patrons of Zoology, which could not exceed 12 in number. Appointments were put forward by members of

ensured the Society had some permanent influence around the world, encouraging officials to present instead of sell animals to the Society so the council did not have to purchase them.⁵² Wealth and geographic placement influenced many of these appointments, with various officials being elected, including John Petherick, H.M. consul of the Sudan, Philip Edmond Wodehouse, governor of the Cape, Colonel Ramsey, Resident at the Court of Kathmandu, and Sir William Thomas Denison, when governor-general of Australia, to name a few.⁵³ Most donations came from the surrounding areas and residencies of highcommissioners, which for animals presented by India's viceroys and governorgenerals, expectantly took the form of a tiger. This informal requirement was met by Sir Seymour Fitzgerald, who presented a tigress to the gardens when governor of Bombay in 1868. Similarly, a male specimen was sent by the governor of Madras, Lord Francis Napier, and in 1876, the viceroy Lord Northbrook was commended for presenting four tigers and donating another three to the new carnivora house.⁵⁴

Commissioners and governors in the dominions were just as forthcoming. In 1884 a moose and other animals worth £50 were sent from the governorgeneral of Canada, whilst 'a sheep eating parrot' was received from the governor of New Zealand, William Hillier Onslow, in 1892.⁵⁵ Gestures of goodwill were not limited to large territories either, with high ranking officials in smaller dependencies willingly offering their services too. Between 1849 and 1852, the ZSL was gratefully indebted to John William Butterworth, the governor of Singapore, for his liberality in donating thirteen 'admirable gifts' to the gardens.⁵⁶

the ZSL council, and never appointed without prior approval. There were also foreign members which did not exceed 25 in number. The same privileges, rules, and restrictions were subject to them as honorary members. See, P. L. Sclater, *A Record of Progress of the Zoological Society of London during the Nineteenth Century* (London: W. Clowes, 1901), pp. 10-12.

⁵² H. Scherren, *The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library* (London: Cassell & Co, 1905), p. 26.

⁵³ The latter was so grateful that he wrote several letters to the secretary thanking him for his appointment. See, ZSLA, CMM, June 20 1860.

⁵⁴ F. Napier to P. L. Sclater, 25 July 1879, ZSLA, GB 0814 BADN, Lord Francis Napier Papers. ⁵⁵ J. Campbell to P. L. Sclater, 18 March & 7 April 1884, ZSLA, GB 0814 BADL, John George Edward Henry Douglas Sunderland Campbell, Marquess of Lorne Papers; W. H. Onslow to P. L. Sclater, 21 June & 8 July 1892, ZSLA, GB 0814 BADO, William Hillier Onslow, 4th Earl of Onslow Papers.

⁵⁶ This included a tree kangaroo and black leopard in 1849, a Malay bear, two sarus cranes and a cassowary in 1850, and an Orangutan, an albino monkey, a pheasant, three crowned pigeons, and two nutmeg birds in 1852. See, 'The Tree Kangaroo and Black Leopard', 27 January 1849,

Contributions were also sourced from remote territories, like the Falkland Islands, where the acting colonial secretary, H. Byng, acquired a pair of Falklands Island foxes (now extinct) to be sent via the steamer *Flamingo* in 1870.⁵⁷ Informing the ZSL secretary of the pair, Byng noted how he had kept the male for about eighteen months and had wanted to send a short account of 'what [he had] seen and known of their habits in their native country'.⁵⁸ However, owing to various avocations, he was prevented from sending the account.⁵⁹ Comparable donations were made by the governors of Trinidad, Malta, British Guiana, Ceylon, Tasmania, and Jamaica.

Many of these top-ranking officials formed close connections with the ZSL despite moving to different governorships, and throughout their careers presented local fauna to the Society. Sir George Grey, who was appointed to numerous posts, was particularly forthcoming in presenting rare animals to the Society, attempting to deliver the first apteryx (kiwi bird) when governor of New Zealand, and a quagga when governor of Cape Colony. After Grey left Cape Colony, the Society reported that his successor, Philip Edmond Wodehouse, would kindly continue to present animals to the Society and 'the council had great hopes under the present governor... [that] several fine animals, which have long been desiderata to the menagerie' would shortly be obtained, a proposition no doubt influenced by George Grey's prior engagements.⁶⁰ This, along with other gifts, represented the global spread of correspondences between the ZSL and high-ranking officials, linking global donations along colonial trajectories.

Similarly, sailors and servicemen were a key group of procurers, but unlike top ranking officials, they formed a much larger collective. This was partly due to the nature of Britain's overseas empire, insomuch as there was a general reliance on Britain's navies (both military and merchant) to transport humans and animals across oceans. Reference to sea captains are strewn across the council meeting

⁵⁹ Instead, Byng promised to procure any 'information regarding the ornithology of these island'. See, H. Byng to P. L. Sclater, 15 August 1870, ZSLA, GB 0814 BADB, H. Byng Papers.

Press Cuttings Book, Vol. 1: June 1843 - Dec. 1867, ZSLA, GB 0814 HCAA; 'Uran-Utan in The Zoological Society Gardens, Regents Park', 1851, ZSLA, GB 0814 GACP; 'Zoological Gardens, Regent's Park-The Uran-Utan', ZSLA, GB 0814 GACP.

⁵⁷ H. Byng to P. L. Sclater, 15 August 1870, ZSLA, GB 0814 BADB, H. Byng Papers.

⁵⁸ H. Byng to P. L. Sclater, 15 August 1870, ZSLA, GB 0814 BADB, H. Byng Papers.

⁶⁰ RoC (1862), p. 18. Wodehouse only presented one young common zebra in 1865. However, he did present a Toco Toucan when serving as Governor of British Guiana.

minutes, often recording small gratuities for their service in conveying specimens to England. Although naval officers and soldiers gifted animals for different reasons, building social connections was an integral part of the process, especially when Admiral Sir William Bowles and Lieutenant-Colonel Charles Russell served on the Society's council. The prospect of presenting an animal could increase one's social mobility, promoting a self-styled middle-man approach that enabled officers to set up direct arrangements with the ZSL or facilitate additional contacts via other collectors.⁶¹

In times of war, the prospect of capturing non-domestic animals was often another means of stocking the Society's menagerie, demonstrating a degree of military prowess in the field. This was the case at the battle of Balaklava during the Crimean War, where several Bactrian camels were captured from the Russian line and presented to the gardens.⁶² Similarly, two hunting dogs were presented to the Society in 1854, which were 'brought to this country by an officer in her Majesty's service, on his return from the Kaffir [Xhosa] War' to be reared in the gardens.⁶³ Donations obtained via servicemen were generally captured in encounters away from the battlefield. During the campaign to reconquer the Sudan between 1896 and 1899, for instance, General Kitchener tried to send a rare wild cat to the ZSL after it was discovered during a reconnaissance mission. Frederick Dixon, who liaised with Philip Sclater on behalf of Kitchener, noted that the wild cat would be sent 'home in a box in the Angekok line *S.S. Karamamia*', which was due to leave Port Said in two weeks' time.⁶⁴ In a short postscript, Dixon noted that if there was anything else he could do to send more animals, such as

⁶¹ Capt. Denham R.N. was given honorary admission to the gardens upon presenting a rare parrot in 1861. Similarly, in 1857 Admiral Bowles relayed a report to the secretary from the governor of the Falklands Islands, Captain Thomas S Moore, via the Royal Navy captain Alfred Curtis, commander of HMS *Brisk*, announcing the safe arrival of a pair of upland geese. The geese proved to be exceedingly advantageous to the Society's collection, and according to the Illustrated London News, the Society was indebted to Curtis for their conveyance. See, 'Upland Geese in the Zoological Society's Gardens, Regent's Park, *ILN*, 8 August 1857, pp. 141-142.
⁶² C. C. Carroll, *The Government's Importation of Camels: A Historical Sketch* (Washington: Government Printing Office, 1904), pp. 394-396. A female camel born in Royal Corps of Engineers' camp on the heights of Sebastopol was amongst those presented to the collection. See, RoC (1857), p. 12.

⁶³ 'The wild sheep and hunting dogs at the Zoological Society of London, Regent's Park', 14 October 1854, ZSLA, GB 0814 GACP.

⁶⁴ F. Dixon to P. L. Sclater, 4 January 1896, ZSLA, GB 0814 BADD, Frederick Dixon Papers. Also see, H. H. Kitchener to P. L. Sclater, 27 December 1895, ZSLA, GB 0814 BADK, Field Marshall Horatio Herbert Kitchener, 1st Earl Kitchener, Papers.

gazelles and foxes, he would be happy to make a donation to the Society.⁶⁵ The afterthought was a welcome gesture, as the ZSL, like other institutions, had struggled to obtain animals from the Sudan following the rise of the Mahdist state.

Beyond the battlefield, redeployment was a useful feature that allowed military benefactors to establish points of contact with others stationed around the world. Admiral Sir Rodney Mundy even tried to take advantage of this when he was appointed commander in chief of the North American and West Indies station, requesting he be made a corresponding member in 1866. Although he was unsuccessful, Mundy argued it would help foster personal contacts and improve the zoological services on those stations.⁶⁶ Similarly, Percy Zachariah Cox, a captain in the Indian Staff Corps stationed in Vadodara in the 1890s, communicated regularly with the secretary of the Zoological Society. On one occasion, Cox informed Sclater of a friend who had acquired a cheetah whilst serving in British Somaliland. The friend had kept it as a pet for nearly a year but had decided to bequeath it to the ZSL, asking Cox to relay the offer to Sclater.⁶⁷ The cheetah never made it to London, possibly dying en route, but through Cox the prospect of having an acquaintance in Somaliland was never truly lost. Moreover, Cox corresponded regularly with the staff at the British Museum and the Bombay Natural History Society, creating another connected strand in the web of associates linked with the ZSL.⁶⁸ Cox's interest in African antelopes (which incidentally was one of Philip Sclater's areas of expertise), coupled with his other correspondences, encapsulated how valuable trans-continental networks were, which in his case linked India, the Somaliland, the ZSL, and various other institutions in a network of international connections.⁶⁹ Military officers were

⁶⁵ F. Dixon to P. L. Sclater, 4 January 1896, ZSLA, GB 0814 BADD, Frederick Dixon Papers.

⁶⁶ G. R. Mundy to P. L. Sclater, 8 January 1866, ZSLA, GB 0814 BADM, Admiral Sir George Rodney Mundy Papers. Unfortunately, there does not appear to be any suggestion Mundy's request was approved. However, more than half of the gentlemen elected corresponding members that year were serving in British colonial territories. See, RoC (1866), pp. 4-5.
⁶⁷ P. Z. Cox to P. L. Sclater, 22 September 1895, ZSLA, GB 0814 BADC, Percy Zachariah Cox Papers.

⁶⁸ P. Z. Cox to P. L. Sclater, 9 June 1897, ZSLA, GB 0814 BADC, Percy Zachariah Cox Papers. In writing to Sclater, Cox mentioned a paper that was submitting to the *Journal of the Bombay Natural History Society* on African antelopes.

⁶⁹ As well as an expert ornithologist, Philip Sclater had a strong passion for ungulate mammals, and, whilst corresponding with Cox, was in the process of preparing a four volume book on antelopes with Oldfield Thomas and illustrations by Joseph Wolf. The authors were praised for 'having succeeded in their intentions in a manner deserving of the heartiest commendation on the part of all to whom this splendid and monumental work appeals' according to a review in

prevalent go-betweens for the ZSL, connecting people from around the world even if the animal died before reaching the gardens. Individual soldiers not only procured animals for the ZSL but formed desirable connections of their own, collaborating with each other to make a sale, build a reputable standing, or claim credit for a newly 'discovered' species.

In this regard, exploration and discoveries played a crucial role in the formation of the ZSL's colonial connections. The physical space of colonial territories facilitated scientific research in a very literal way, which 'at a basic level, the recording of landscape spaces, their topological characteristics, and botanical and zoological inhabitants contributed' greatly to the production of scientific knowledge.⁷⁰ Like other natural sciences, understanding the local fauna and flora was often converted into human exploitation, which, under congenial conditions and a supportive administrative framework, helped interpret and enforce controls that were favourable to the presiding power. Collecting specimens (dead or alive) became a functional tool of imperial expansion and scientific advancement, an opportunity the ZSL occasionally utilised to acquire new animals for exhibit. In 1893, for instance, William Speirs Bruce asked if the ZSL would be willing to support a return expedition to South Georgia Island and Graham Land, suggesting he 'might come to have some living specimens [and would] be very pleased to make an endeavour to secure them'.⁷¹ Frederick John Jackson made a similar plea for an expedition to the Arctic, asking the Society to recommend an able bodied naturalist for the expedition.⁷² Mainly drawn by the potential for new

Nature. Even this had imperial overtones, as the reviewer 'R. L.' (possibly Ray Lankester or Richard Lydekker) noted how fortunate it was for science that 'the opening-up of Somaliland and East Africa in general, as well as continued exploration in the heart of the continent, have of late years made us acquainted with quite a number of antelopes which were altogether unknown'. See, Sclater & O. Thomas, *The Book of Antelopes, Vols I-IV* (London: R. H. Porter, 1899-1900); R. L., 'The Book of Antelopes', *Nature*, Vol. 63 (1901), pp. 509-510.

⁷⁰ J. McAleer, *Representing Africa: Landscapes, Exploration and Empire in Southern Africa 1780-1870* (Manchester: MUP, 2017), p. 97.

⁷¹ W. S. Bruce to P. L. Sclater, 13 October 1893, ZSLA GB 0814 BADB, William Spiers Bruce Papers. Bruce managed to secure materials from the Metrological Office and £50 from the British Association of Science for the expedition but failed to gain support from the Royal Geographical Society. As such, the plans failed to materialise. In a similar vein, Robert Falcon Scott enquired whether the Society could spare a sleigh dog from their collection, as Scott and his team had misplaced one of theirs just days before departing on the Discovery Expedition (1901-1904). See, R. F. Scott to P. L. Sclater, 24 June 1901, ZSLA, GB 0814 BADS, Robert Falcon Scott Papers.

⁷² F. J. Jackson to P. L. Sclater, 2 March 1893, ZSLA, GB 0814 BADJ, Frederick John Jackson Papers; F. G. Jackson & Others, "Three Years' Exploration in Franz Josef Land', *TGJ*, Vol. 11, No. 2 (1898), pp. 113-138. The botanist turned geologist Harry Fisher was recommended by the

'discoveries', the ZSL's willingness to engage in these expeditions was a response to the potential prospect of acquiring polar specimens, a position that aligned with the general interest in exploration and the polar regions at the turn of the century.

Many members of the Royal Geographical Society were also fellows of the London Zoological Society as well, supplying both institutions with intellectual and physical materials. Samuel White Baker, for instance, was an avid supporter of both establishments and proposed a number of animals be obtained during a military expedition to the equatorial regions of the Nile.⁷³ In 1868, he even suggested the ZSL obtain an armed agent to collect a Maarif antelope from Morocco, insisting the Society must hurry as an Italian physician had followed his tracks to make his own collection.⁷⁴ The cultural and political dimensions of exploration aptly tied the ZSL to these interests in geographic 'discovery', with zoological specimens interlocking like-minded institutions in the pursuit of scientific achievements and the potential consequences of colonial aggrandisement.⁷⁵ The prospect of discovery and its affiliated faculties, closely intertwined the ZSL with the commercial activities of exploration, reaching the most inhospitable parts of the globe by the end of the century. However, unlike the aforementioned individuals, for those who did not live near wild animal habitats, the prospect of presenting animals to the Society encompassed its own challenges. Ex-situ benefactors, those who did not reside near the natural habitats of 'exotic' wild animals, supplied the ZSL in different ways, an approach that was especially true for members of the royal family.

Historically, royalty played a prominent role in the practice of animal collecting, using animals as symbolic capital in diplomatic and stately interactions. The first recorded royal menagerie in England was founded in the

ZSL and accompanied Jackson on the expedition (1894-1898). He was later replaced by William Spiers Bruce as official zoologist.

⁷³ ZSLA, CMM, 2 June 1869. Samuel Baker asked if Dr James Murie, the Society's Prosector, would join him on his proposed expedition in 1869. Dr Murie declined on the grounds of ill-health.

⁷⁴ S. W. Baker to P. L. Sclater, 6 February and 11 February 1868, ZSLA, GB 0814 BADB, Samuel White Baker Papers.

 ⁷⁵ J. Gascoigne, 'Science and the British Empire from its Beginnings to 1850', in *Science and Empire: Knowledge and Networks of Science Across the British Empire*, ed. B. M. Bennett & J. M. Hodge (London: Palgrave, 2011), pp. 47-67 (p. 55).

twelfth century by Henry I, who, according to William of Malmesbury, had 'an abiding curiosity about the natural world, and kept a menagerie of exotic animals at Woodstock'.⁷⁶ The collection was later moved to the Tower of London where it became a symbol of monarchical power, remaining the home of the royal menagerie until 1831.77 After then, the remaining animals were transferred to the newly established Zoological Society of London, thereby connecting the Zoological Society with royalty – a point that was likely linked to George IV's decision to grant the institution its royal title in 1829.78 The endorsement raised the ZSL's standing amongst the older and more well-established learned bodies, enabling it to fit more appropriately within the wider scientific community.⁷⁹ Queen Victoria later became the patron of the Society, as did the Prince of Wales and future king, Edward VII, who served as vice-patron and a fellow from 1863. Following the death of the Earl of Derby in 1851, Prince Albert was also elected President of the Zoological Society until his death ten years later, an appointment that further elevated the Society's cause on account of his contributions to the arts and industry.⁸⁰ Through these various appointments, benefactors from around the world were further encouraged to present animals to the Society, viewing the ZSL as an extension of royal confirmation.⁸¹ Royal associations reinforced the Society's credibility at home and abroad, bringing the institution into closer proximity with the growing symbolism of monarchy.⁸² As Robert Aldrich and Cindy McCreery have argued, the idea of dynastic lineage conjures up the word 'empire' and the 'idea of a collection of conquered territories,

⁷⁶ William of Malmesbury, *De Gestis Regum Anglorum*, ed. W. Stubbs, 2 Vols. (Royal Society: 1887-1889), Vol. II, p. 485.

⁷⁷ D. A. Carpenter, 'King Henry III and the Tower of London', *The London Journal*, Vol. 19, No. 2. (1994), pp. 95-107 (p. 97). Also see, A. C. N. Borg, 'The Royal Menagerie', in *The Tower of London: its Buildings and Institutions*, ed. J. Charlton (London: HMSO, 1978), pp. 100-101.

⁷⁸ 'The Original Charter of ZSL, granted by King George IV, 27 March 1829', ZSLA, GB 0814 AAA.

⁷⁹ S. Zuckerman, 'The Zoological Society of London', pp. 6-7.

⁸⁰ It is likely Richard Owen, at the time one the ZSL's vice-president, helped facilitate the appointment as he taught the royal children natural history.

⁸¹ For example, A. D. Bartlett, 'Description of Chinese Sheep Sent to H.R.H. Prince Albert by Rutherford Alcock, Esq. H.M. Vice-Consul at Shanghai. Presented by H.R.H. to the Zoological Society in April 1855', *PZS* (1857), pp. 104-107.

⁸² M. Taylor, 'The British Royal Family and the Colonial Empire from the Georgians to Prince George', in *Crowns and Colonies: European Monarchies and Overseas Empires*, ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 27-50.

particularly overseas colonies'.⁸³ It is almost impossible to envisage Victoria without her empire, or to separate her reign from Britain's imperial heyday.⁸⁴ Thus, as monarchy emerged as a national signifier and cultural rallying point for empire, the ZSL too became a useful place for depositing gifted animals, subsequently linking the exhibited animals to broader connotations of royalty.⁸⁵ The Queen's rule increasingly became as 'extensive over the races of beasts as of men'.⁸⁶

The formality of receiving gifts from foreign dignitaries was a wellestablished practice by the time Queen Victoria ascended the throne, which for the sake of convenience, made the ZSL a suitable place for housing prospective gifts. It became customary for Queen Victoria to perquisite the Society's collection, and, as patron of the Society, enabled her to inspect the donations whenever it suited the royal convenience. In 1850, she presented a collection of animals to the Society, offering them for public exhibition.⁸⁷ A decade later, the council thanked the Queen for presenting an Ælian wart hog, noting it formed a valuable addition to the *Suidae* family already in the Society's possession.⁸⁸ Unless stated otherwise, these animals were presented from subjects within the British Empire, usually from individuals wanting to win favour with the crown or pay homage to the monarch.

The Prince of Wales (later Edward VII) was also a keen advocate of the Society, and like his mother, presented various animals. Between 1862 and 1872, the Prince of Wales presented a cheetah, four Syrian wild cats, an emu, an Australian crane, an alligator, and a wolf to the Society. However, the Prince's largest requisition came in 1876, after his royal tour to the Indian subcontinent – which up to that point, was the largest single collection ever presented to the ZSL.

⁸³ R. Aldrich & C. McCreedy, 'European Sovereigns and Their Empires 'Beyond the Seas'', in *Crowns and Colonies: European Monarchies and Overseas Empires* ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 1-26 (p. 1).

⁸⁴ Ibid., p. 18.

⁸⁵ J. Rüger, 'Nation, Empire and Navy: Identity Politics in the United Kingdom, 1887-1914', *P&P*, No. 185 (Nov., 2004), pp. 159-187 (p. 186); I. Chowdhury-Sengupta, 'Mother India and Mother Victoria: Motherhood and Nationalism in Nineteenth Century Bengal', *South Asia Research*, Vol. 12, No. 1 (May, 1992), pp. 20-37.

⁸⁶ The Daily Mail, 17 August 1880, p. 5.

⁸⁷ RoC (1850), p. 21.

⁸⁸ RoC (1860), p. 17. Likewise, in 1862 a pair of Brahmin Cattle and an Aoudad, two African sheep in 1866, and a Mouflon in 1871 were sent to the zoological gardens at her bequest. See, RoC (1893), p. 45.

Like other royal tours, the 1875-6 India tour was a highly choreographed act of imperial unity, which, according to Chandrika Kaul, proved to be a significant display of monarchical power amidst the politics of empire.⁸⁹ On 11th October 1875, the Prince and his entourage left London for India, including Clarence Bartlett – the son of the ZSL's superintendent Abraham Bartlett – who travelled by train to Brindisi before boarding the Serapis, arriving into Bombay on 8th November.⁹⁰ Over the next two months the Prince of Wales saw large swathes of the subcontinent, visiting temples and monuments, participating in a pigsticking outing near Dubka, and witnessing 'different creeds, differing even in colour and costume. [supposedly] united in gratitude for the benefits of British rule and influence'.⁹¹ Adhering to royal protocols and the decadence of the Raj, the Prince participated in a number of hunting activities, bagging 'elephants, camels, ponies, tongas ... that were waiting for the sportsmen'.⁹² At Ahmedabad, 'the Prince made a large contribution in the shape of a sarus (crane) which was found near some swampy ground... [and by] 10 a.m. the bag was found to consist of 111 guail and sundries', adding a significant portion to the taxidermy collection Clarence Bartlett was preparing.⁹³ However, the most extravagant animal encounters took place in Nepal, where Maharaja Jung Bahadur Rana's hospitality was admirably noted. According to the official diarist, Jung Bahadur was an esteemed sportsman who had 'taken his degree in tiger hunting', and, having organised a number of expeditions for the Prince, respectfully allowed His

⁸⁹ C. Kaul, 'Monarchical Display and the Politics of Empire: Prince of Wales and India 1870-1920s, *Twentieth Century British History*, Vol. 17, Iss. 4 (2006), pp. 464-488. Also see, H. H. Hahn, 'Indian Princes, Dancing Girls and Tigers: The Prince of Wales's Tour of India and Ceylon, 1875-1876', *Postcolonial Studies*, Vol. 12, No. 2 (2009), pp. 173-192; C. McCreedy, 'Two Victorias?' Prince Alfred, Queen Victorian and Melbourne, 1867-68' in *Crowns and Colonies: European Monarchies and Overseas Empires* ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 51-76 (pp. 51-54).

⁹⁰ W. H. Russell, *Prince of Wales Tour: A Diary in India, with some account of the Visits of his Royal Highness to the Courts of Greece, Egypt, Spain, and Portugal* (London: Sampson Low, 1877), pp. vii-1, 109.

⁹¹ Ibid., 211.

⁹² Howard, *Prince of Wales Tour*, p. 212. 'Hunting offered the elite...a symbolic dominance of the environment, a means of asserting boundaries of territory, action and behaviour', see J. M. Mackenzie, *The Empire of Nature: Hunting, Conservation, and British Imperialism* (Manchester: MUP, 1997), p. 80. For more information on hunting and empire see, J. A. Morgan & C. C. McKenzie, *Militarism, Hunting, Imperialism: 'Blooding' the Martial Male* (London: Routledge, 2010), pp. 30-81; W. Beinart, 'Empire, Hunting and Ecological Change in Southern and Central Africa', *P&P*, Vol. 128 (April, 1990), pp. 162-186.

⁹³ R. W. Howard, *Prince of Wales Tour*, p. 212.

Majesty to claim most the kills.⁹⁴ Gestures of good will continued to flow, and after one hunting trip, the evening was followed by a display 'rarely given to anyone to witness – a procession, in single file, of 700 elephants'.⁹⁵ As a token of gratitude, Jung Bahadur also gifted the Prince a considerable number of live animals, including 'two caged tigers and a splendid collection of birds...many impeyan pheasants...an argus...kaleege, coqplass, chickore, jungle-fowl... an enormous boa constrictor' and a delightful little elephant (namely Jung Perchad) that 'salaams and perform[ed] many tricks'.⁹⁶ Two large leopards named Lizzie and Sailor were also presented, the latter having 'a festive habit of converting trouser legs into ribbons', whilst two fully grown tigresses, three tiger cubs, a hunting cheetah, and two young leopards born in the Calcutta Zoological Gardens were presented later in the tour.⁹⁷ The collection was comprised of 'representatives of nearly every tribe of Indian wild beats', and, for the return to Britain, was loaded onto two converted troop ships, the *Raleigh* and *Osbourne*.⁹⁸

After a brief stop at Aden, where three ostriches were added to the collection – a procurement the ZSL was particularly grateful for as the Society's only ostrich had died from an overindulgence in small pennies – the royal delegation arrived into Portsmouth on 5th May 1876.⁹⁹ Once the royal party had disembarked, a number of distinguished guests were allowed to examine the animals, ascending to 'the upper-deck saloon, and wandered over the decks, where tigers, cheetahs, cheetuls [Ceylonese spotted deer], elephants, dogs, the bear, horses, asses, birds, monkeys, displayed teeth, claws, tusks, feathers, tails, and other attractions...everything on board was an object of interest' [figure 19].¹⁰⁰ From there, the majority of animals were sent to the gardens by train, travelling to 'Willow Walk, the Bermondsey goods station of the London and Brighton Railway, to be transferred to vans and taken by road to Regents Park'.¹⁰¹ Over the next

⁹⁴ W. Blunt, *The Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976), p. 189.

⁹⁵ R. W. Howard, *Prince of Wales Tour*, p. 484.

⁹⁶ Ibid., pp. 486-487. Jung Perchad was ridden around northern India by Clarence Bartlett before they left for Bombay. See, 'Death of a Good Elephant', *The New York Times*, 28 March 1896, p. 3

⁹⁷ W. Blunt, *The Ark in the Park,* p. 191.

⁹⁸ *The Buckingham Advertiser and Free Press*, 20 May 1876, p. 6; 'The Prince of Wales' visit to India', *Hampshire Telegraph*, 31 July 1875, p. 7.

⁹⁹ 'Return of the Prince of Wales from India', *ILN*, 13 May 1876, p. 2.

¹⁰⁰ R. W. Howard, *Prince of Wales Tour*, p. 566.

¹⁰¹ W. Blunt, *The Ark in the Park,* p. 194.

few weeks nearly 900,000 guests flocked to the gardens to see the Prince's collection, a record that was not surpassed until 1912.¹⁰² Visitors not only marvelled at the living assortment of animals but also the vast collection of trophies mounted in the Society's lecture hall by Clarence Bartlett.¹⁰³ The following Sunday the Prince and other royal guests were admitted to the gardens to inspect 'his friends in fur and feathers'.¹⁰⁴ The Queen even paid a visit in March 1877, noting in her diary that she had seen 'the lions, tigers, panthers & c., belonging to Bertie, endless fine pheasants, deer of all kinds, & on the other side Bertie's four elephants, all in a row'.¹⁰⁵ Consequently, royal donations became clear markers of imperial entanglement, celebrating outpourings of generosity, gift-giving, and the politics of empire.



Figure 19. 'A Levée of Pets'. W. H. Russell, *Prince of Wales Tour: A Diary in India, with some account of the Visits of his Royal Highness to the Courts of Greece, Egypt, Spain, and Portugal* (London: Sampson Low, 1877), p. 573.

¹⁰² See 'Century Chart of Progress' in P. Chalmers-Mitchell, *Centenary History of the Zoological Society of London* (London: Zoological Society of London, 1929).

¹⁰³ P. Chalmer-Mitchell, *Centenary History of the Zoological Society of London*, p. 87; London Zoo Daily Occurrences, 31 May 1876, ZSLA, GB 0814 QAA/QAAA.

¹⁰⁴ *The Daily News*, 13 May 1876, Press Cuttings Book, Vol. 3: July 1875 – Oct. 1891, ZSLA, GB 0814 HCAA.

¹⁰⁵ W. Blunt, *The Ark in the Park,* p. 196.

Maharaja Jung Bahadur Rana's gifts to the Prince of Wales indicated how beneficial monarchical gifts were to the ZSL, helping create alternative forms of overseas engagement with heads of states under colonial rule. For foreign dignitaries, these animals were emblematic gifts which cost the giver little and flattered the recipient much.¹⁰⁶ The ZSL became an indirect benefactor of this royal protocol, housing animals as a gift to the nation. Thus, as Britain's political influence extended around the globe, so too did the reaches of monarchy, particularly in the crown colonies like India, where Victoria assumed 'the role of patriot queen' after the disbandment of the East India Company rule in 1858.¹⁰⁷ These arrangements transformed the British monarchy into a working colonial monarchy, offering subjects an opportunity to address and extend direct appeals to the crown as a figurehead of empire.

There were various occasions when the appeals of monarchy were raised during the nineteenth century, celebrations that were intended to commemorate colonial loyalties and patriotism via an imperial-centred event.¹⁰⁸ The most prominent of these were Queen Victoria's golden and diamond jubilees in 1887 and 1897, and Edward VII's coronation in 1902. These events marked major milestones in the reigns of these monarchs, enabling the public to participate in a series of national celebrations that, politically, proved to be a success for the monarchy. Yet amidst these orchestrations, the royal events also served as opportunities for other monarchs and dignitaries to present lavish gifts and animals to the British crown, subsequently providing the ZSL with a multitude of donations.¹⁰⁹ One animal that emerged out of these celebrations was a giraffe

¹⁰⁷ M. Taylor, 'The British Royal Family and the Colonial Empire', p. 40.

¹⁰⁶ W. Blunt, *The Ark in the Park*, p. 189. At the 150th anniversary celebration of the Zoological Society the President, the Duke of Edinburgh, remarked how 'the tradition of Kings and Heads of State presenting animals to each other and to the ZSL continues to the present day'. See, HRH Prince Philip, 'Foreword', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40*), ed. By S. Zuckerman (London: Academic Press, 1976), pp. ix-xi (p. xi).

¹⁰⁸ Ibid., pp. 33-42.

¹⁰⁹ For example, in 1890, Queen Victoria presented the ZSL with a lion cub received from the Sultan of Sokoto in northern Nigeria. The lion was sent via the Royal Niger Company, between whom and the Sultan 'a very friendly feeling exist[ed]', with newspapers going on to state, 'Sokoto on the Upper Niger, is one of the most important Mohammedan States in Western Africa, and has been reserved to the sphere of British influence by the recent Convention with France'. The lion represented more than an act of homage but was a living symbol of Britain's imperial domain. See, 'The Queen's Lion Cub', 1890, ZSLA, GB 0814 GACP. Also see, 'Another Lion for the Queen', *The Mail*, 17 November 1893, p. 6.

from southern African, presented to Queen Victoria by the Chief of Batheon during the diamond jubilee in 1897. Dubbed the Jubilee Giraffe, this animal was sent as a gift of homage, but it was also a living symbol of Britain's imperial domain. Although it ended in tragedy – the giraffe died on the threshold of the gardens' enclosure – the task of coordinating, collecting, and transporting the giraffe marked a highpoint in the zoo's global affinities within a heightened celebration of imperialism. Therefore, the final section will bring together aspects from the previous two sections to illustrate how human actants, environmental conditions, and non-human actors collectively influenced the process of acquisition, exemplified through the jubilee giraffe, as it made its way to the gardens of the Zoological Society of London.

'It is still rarer to see a dead giraffe': The acquisition of the jubilee giraffe

Giraffes were always a popular attraction in the Zoological Society of London's collection and, like the elephants, were some of the most frequently displayed animals in the Society's history. Between 1836 and 1892, thirty giraffes were housed in the gardens, and, since 1895 to the present day, the Society has never been without a representative of this species. Excluding the first four giraffes presented to the ZSL in 1836, between 1839 and 1892 seventeen fawns were reared in the gardens and an additional nine were purchased or presented from an array of collectors [table 4]. On 22nd March 1892, however, the Society's only living giraffe died, leaving the zoo without a representative of this mammal for the first time in fifty-six years.¹¹⁰ At the following scientific meeting Philip Lutley Sclater announced the giraffe's death, stating:

'[it seems that there would not be] much chance of our being able to supply the deficiency...the supplies of this and other large African Mammals, which were formerly obtained *via* Cassala [sic] and Suakin, have ceased, and, so far as I can make out, with the exception of a single old female (for which an exorbitant price is demanded), there are now no living Giraffes in the market'.¹¹¹

¹¹⁰ The most likely cause of death was tuberculosis. Large masses of caseous were found in the lungs during the post mortem. See, '22nd March 1892' in Death Book – 1887-1894, ZSLA, 0814 RCA.

¹¹¹ P. L. Sclater, 'Report on the Additions to the Society's Menagerie in March 1892, and list of Giraffes that have lived in the Society's Gardens', *PZS* (1892), pp. 256-258 (p. 256).

The circumstances looked bleak.

Newspapers lamented the giraffe's passing and described the event as a heavy loss, advertising 'giraffe wanted' posters and calling on overseas Britons to obligingly tie a 'label marked "Regent's Park" around the necks of as many giraffes as they could find.¹¹² Anxious to fill the void, it took the ZSL another three years to acquire a single living specimen, purchasing a female from southern Africa for £500 in 1895 – a smaller and paler sub-species of the more commonly acquired Nubian giraffe [figure 20]. In Sclater's words, the prospects of capturing a northern species were severely limited, owing to the closure of the Sudan by the Mahdists.¹¹³ The objective of supplying the ZSL with a new series of giraffes became a pressing issue for the ZSL in the remaining years of the nineteenth century, as giraffes had become a rare and prestigious addition in nearly all zoological collections in northern Europe. The possibility of resolving the issue, however, came to fruition in 1897, in the form of King Khana's diamond jubilee gift to Queen Victoria: a prized male south African giraffe, ready and waiting to be presented to Her Majesty. The task of retrieving the giraffe would be of the upmost importance, not just for the Crown and King Khana, but also for the British Government, and the ZSL; it was to be a poignant gift celebrating the monarch's jubilee year and a chance for Britain to demonstrate its assertive position in Africa.

The diamond jubilee was a lavish proclamation of imperial prestige which served as a unique opportunity for the ZSL to engage in the wider celebrations. According to Vera Nünning, the transnational celebrations of the diamond jubilee personified Queen Victoria into 'a familiar and idealised icon of the British Empire', increasing the appeals of monarchy through jubilant expressions of imperialism.¹¹⁴ John Plunkett agrees with this assessment, suggesting the endless materialisation of the diamond jubilee bridged the gap 'between individual experience and the type of mass-collectively' that helped perpetuate

¹¹² RoC (1893), pp. 35-36; *The Globe*, 6 April 1892, p. 6; *St. James's Gazette*, 30 March 1892, p. 4.

¹¹³ P. L. Sclater, 'Report on the Additions to the Society's Menagerie in March 1892, and list of Giraffes that have lived in the Society's Gardens', p. 256; RoC (1895), p. 7.

¹¹⁴ V. Nünning & A. Nünning, *The Invention of an Empress: Factions and Fictions of Queen Victoria's Jubilee of 1887 and 1897 as a Paradigm for the Study of Cultural Memories* (London: Jansohn, 1998), p. 108.

No.	Presented/Born/Purchased by ZSL		Sex	First Exhibited	Death/Presented elsewhere
1	Imported	Name - Zaida	Ŷ	24 th May 1836	15 Oct 1852
2	Imported Guiballah		0	-	19 Oct 1846
3	Imported Selim		8	-	14 Jan 1849
4	Imported	Imported Mabrouck		-	6 Jan 1837
5	Born		8	19 June 1839 (Mother No. 1)	28 June 1839
6	Born Albert		S	24 May 1841 (Mother No. 1)	Presented to Dublin Zool. Soc. 14 June 1844. Died 1849
7	Born		0	25 Feb 1844 (Mother No. 1)	30 Dec 1853
8	Born	<i>Ibrahim Pasha</i> – Breeding Male	0	22 April 1846 (Mother No. 1)	22 Jan 1867
9	Born		ð	12 Feb 1849 (Mother No. 1)	Sold to Antwerp Zool. Soc. April 1850 – £350
10	Presented	Jenny Lind	9	29 June 1849	3 Nov 1856
11	Purchased	Alice	4	29 June 1849	Sold to Mr Edmonds Oct 1853 - £450
12	Born		S	30 March 1852 (Mother No. 1)	Sold to Mr Quick 28 March 1853 - £250
13	Born		Ŷ	25 April 1853	21 May 1872
14	Born		Ŷ	7 May 1855	Suffocated in Giraffe House fire 6 Nov 1866
15	Born			16 July 1859 (Mother No. 13)	2 Dec 1859
16	Born			20 May 1861 (Mother No. 14)	Sold to Mr Jamrach 1 May 1863 - £150
17	Born			7 Oct 1861 (Mother No. 14)	18 Dec 1861

Table 4. Giraffes Exhibited in the Gardens, 1836-1897

18	Born		8	8 May 1863 (Mother No. 14)	Sold to Mr Jamrach Nov 1863 - £150
19	Born		50	24 Sept 1863 (Mother No. 13)	21 April 1864
20	Born		50	31 March 1865 (Mother No. 14)	3 April 1865
21	Born		9	29 April 1865 (Mother No. 13)	Sold to Mr Vekerman 31 May 1866 - £200
22	Born		50	14 Sept 1866 (Mother No. 14)	Suffocated in Giraffe House fire 6 Nov 1866
23	Born		50	17 March 1867 (Mother No. 13)	N/A
24	Purchased		Ŷ	23 July 1867	12 Sept 1869
25	Purchased		5	5 Jan 1871	27 April 1874
26	Purchased		Ŷ	11 Oct 1871	21 May 1878
27	Purchased		5	25 July 1874	8 Jan 1879
28	Purchased		9	-	24 Nov 1891
29	Purchased		9	-	N/A
30	Purchased		50	27 Jan 1879	22 March 1892
31	Purchased	Daisy	9	26 Feb 1895	Post - 1905
31	Presented Jubilee Giraffe		50	21 Sept 1897 - Died on Arrival	
32	Purchased		5	6 July 1898	8 Aug 1898

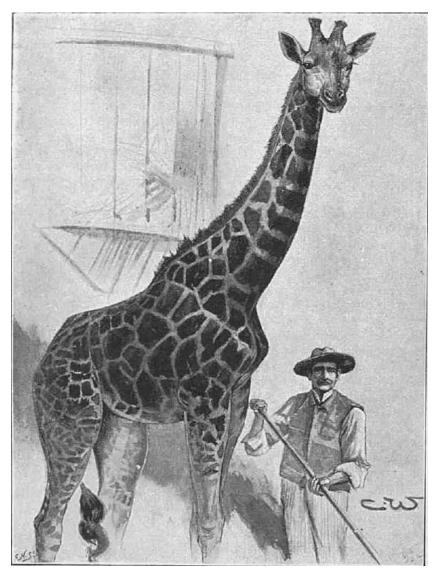


Figure 20. 'Daisy' the giraffe with H. Windhorn. Image taken from, 'A Visit to the New Giraffe', *The Sketch*, 13 March 1895, p. 366.

an imperial attachment.¹¹⁵ These aspects of 'imperialistic self-fashioning' were also found in the zoological specimens that were presented to Queen Victoria – most notably the jubilee giraffe.¹¹⁶

On New Year's Eve 1896, Reverend Edwin Lloyd sent the following address to the Assistant Commissioner's office in Gaborone whilst working for the London Missionary Society in Bechuanaland:

¹¹⁵ J. Plunkett, *Queen Victoria: The First Media Monarch* (Oxford: OUP, 2003), p. 7. ¹¹⁶ M. Holscher, 'Performance, Souvenirs, and Music: The Diamond Jubilee of Queen Victoria 1897', in *Mediation, Remediation, and the Dynamics of Cultural Memory*, ed. A. Erll & A. Rigney (Berlin: Walter de Gruyter, 2009), pp. 173-186 (p. 173).

Dear Sir Surmon,

The Chief of Batheon desires to write to inform you that he wishes to present Her Majesty the Queen with a Giraffe – The Giraffe is with his people at Garan[a]ka, is a male and said to be three years old...It is very tame and feeds about the town of Garan[a]ka - The Chief hopes Her Majesty will graciously deign to accept the giraffe which he offers as an expression of his loyalty to his Queen whom he was so happy to see at Windsor castle last year.¹¹⁷

The information was passed along a string of colonial administrators, including the High Commissioner of Southern Africa at Mafeking, Lord Rosmead, who forwarded the telegram to the Colonial Secretary Joseph Chamberlain on 22nd January 1897.¹¹⁸ By May, the Queen had been informed and accepted the giraffe, placing the Under-Secretary of State at the Colonial Office, Frederick Graham, in charge of the preparations for the giraffe's retrieval. The gift could not have been better timed, as European zoos were experiencing a severe shortage in large ungulates and African mammals – a factor, in part, due to wider events that had unfolded in the Sudan.

For most of the nineteenth century, giraffes obtained for European zoos had been sourced in northern Africa, and the vast majority of these were Nubian giraffes that lived in the Sudanic plains. Following the advances of the Mahdist movement, however, which largely expelled Europeans forces from the Sudan in the 1880s, the price of giraffes and other north African megafauna increased tenfold.¹¹⁹ As John Simons has shown, prices rose dramatically from roughly £40 per head to £1000 by 1885, a staggering 2400% increase that only came down to £400 around 1903.¹²⁰ The Mahdist state made it both impractical and perilous for Europeans and animal catchers to journey through the region and exploit the animal populations, with large swathes of territory brought under Sharia law.¹²¹

¹¹⁷ E. Lloyd to W. H. Surmon, 31 December 1896, ZSLA, GB 0814 BADG, Frederick Graham Papers.

¹¹⁸ H. W. Surmon to Lord Rosmead, 6 January 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers; Lord Rosmead to J. Chamberlain, 22 January 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers.

¹¹⁹ K. Searcy, *The Formation of the Sudanese Mahdist State - Ceremony and Symbols of Authority: 1882–1898* (Leiden: Brill, 2011), pp. 96-147.

¹²⁰ J. Simons, 'The Scramble for Elephants: Exotic Animals and the Imperial Economy', in *Captured: The Animal Within Culture*, ed. M. Boyde (Basingstoke: Palgrave, 2014), pp. 26-42 (p. 28).

¹²¹ A. Layish, *Sharī'a and the Islamic State in 19th-Century Sudan: The Mahdī's Legal Methodology and Doctrine* (Lieden: Brill, 2010), pp. 234-256.

Such repercussions were felt across Europe, which as the director of the Zoological Gardens in Antwerp put it, unlike tigers that were 'a drug at £100... the giraffe was a priceless beast, for he simply isn't to be had... since this country [Britain] meddled with the Soudan, and disturbed the waters of the Upper Nile'.¹²² The ripple effects were felt everywhere, including the museum space. The Natural History Museum in South Kensington complained that 'at present, the national collection is sadly lacking in respect of these animals'.¹²³ Hence, the Chief of Batheon's gift was a highly significant gesture.

The question of bringing the giraffe to Britain, as well as the need to find a suitable place to house it, were yet to be finalised when the Queen accepted the gift. To overcome this, Graham contacted the Queen's Private Secretary, Sir Arthur Bigge, to inquire whether Her Majesty wished to place the giraffe under posit at the Zoological Gardens, as she had done with previous donations, or, have it placed in her private collection in Windsor Park as a mark of respect. Originally intending to keep it in one of the lodges in Windsor Park, the Queen was eventually advised to place it in the Zoological Gardens for the winter, adding that if she changed her mind, the question of expenses could be arranged thereafter. Irrespective of the decision, there was still a need to find a skilled proprietor willing enough to retrieve the giraffe and oversee its departure from Africa. As a result, the ZSL was requested to find a willing representative to go 'to the Cape and bring home the Queen's giraffe'.¹²⁴ A week later, Sclater responded to the proposition, recommending Mr H. Windhorn for the job. Although Windhorn was not a ZSL zookeeper – he worked as a subcontractor for the German animal trader Charles Reiche – Sclater recommended Windhorn on the basis of his previous experience in bringing 'Daisy', the female South African giraffe, to London in 1895. Unfortunately, Windhorn was in Germany in early 1897, retrieving a sea-lion and pair of ostriches for the Zoological Society from Charles Reiche in Alfeld. Fearing that the opportunity might be lost, Sclater conceded that Windhorn might not return in time to catch the steamer for Cape Town and would miss the deadline. Consequently, Sclater reassured the Colonial

¹²³ Illustrated Sporting and Dramatic News, 19 June 1897, p. 631.

¹²⁴ F. Graham to P. L. Sclater, 13 May 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers;

¹²² Evesham Standard & West Midland Observer, 10 April 1897, p. 6.

P. L. Sclater to F. Graham, 4 June 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers.

Office that, if necessary, his son, William Sclater, would be made available to collect the giraffe as he had just been made the Director of the South African Museum at Cape Town.¹²⁵ Fortuitously, a letter reached Windhorn in time and he agreed to collect the giraffe, implying 'Mr Reiche would have no objection' of him leaving at such short notice.¹²⁶ Windhorn arrived in England in early June and was given a full breakdown of the task ahead. As a representative of the Zoological Society, he was told to proceed to the Cape via the Union-Castle steamer Arundel Castle, berthing Friday 2nd July, and report to William Sclater who would take him to the Government House and supply him with further instruction. If the giraffe had not been sent to Cape Town in advance, Windhorn was to go to Gananaka (near Gaborone on the modern-day Botswana/South Africa border) and place the giraffe on the next available train back to the coast. Arriving in Cape Town, the entourage was then instructed to return to London on the first available Union-Castle line steamer, and at Madeira telegraph the Zoological Society of their impending arrival in Plymouth.¹²⁷ To meet all expenses, Windhorn was advanced two months' salary and offered an additional £50 if he succeeded in bringing the animal to England alive. He was also asked to keep a short diary and write by every mail after leaving England.¹²⁸ The plans were well thought-out and carefully prearranged, but it all rested on one ominous factor that was then ravaging sub-Saharan Africa – rinderpest.

The rinderpest virus, a malignant and highly contagious fever that mainly affects cattle and other domestic ungulates, had appeared in Africa in 1889. Beginning in the Eritrean port of Massawa, the virus had moved southwards through the Horn of Africa, infecting much of East Africa by 1891, and after slowing down at the Zambezi river (a natural barrier against the spread of disease) it reached South Rhodesia in 1896 where it began to infect not just

¹²⁵ P. L. Sclater to H. Just, 20 May 1897, ZSLA, GB 0814 BADJ, Hartmann W. Just Papers. R. E. M, 'Obituary – W. L. Sclater', *Journal of the East African Natural History Society*, Vol. XIX, (1946), p. 73.

 ¹²⁶ H. Windhorn to Mr Thomson, 26 May 1897, ZSLA, GB 0814 BADW, H. Windhorn Papers.
 ¹²⁷ Instructions to H. Windhorn, undated, ZSLA, GB 0814 BADW, H. Windhorn Papers.

¹²⁸ Instructions to Windhorn, undated, ZSLA, GB 0814 BADW, H. Windhorn Papers; F. Graham to P. L. Sclater, 7 June 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers; F. Graham to P. L. Sclater, 1 October 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers.

cattle, but also game, sheep, and wild animals too – including giraffes.¹²⁹ From there the virus had spread relentlessly, travelling approximately twenty miles a day, and, by April 1896, was brought into the Bechuanaland Protectorate by an transport oxen.¹³⁰ It was an early sign that the disease could seriously undermine the stability of the Cape Colony, which still measured its political, economic, and social standing through cattle ownership.¹³¹ To combat the spread, the Cape government appointed a number of local and national rinderpest commissions to prevent further outbreaks.¹³² Amongst their measures, harsh restrictions were imposed on ox-wagon transport and prohibited traders from moving produce across state borders, setting up fumigation centres to isolate potential cases. However, the plans required serious state intervention and early efforts showed scant regard for territorial integrity, with commissioners adamantly arguing the only preventive policy was the destruction of animals in infected areas. This caused some of the worst hit areas, such as Mafeking and Vryburg, to report over 140,000 cattle deaths, virtually destroying the regional economies. Yet despite the campaign against the disease, rinderpest continued to move southwards.¹³³ Back at the Colonial Office in London, those involved in the removal the jubilee giraffe became guite distressed at these developments, especially when they realised that the giraffe would need to use the railway where the disease had first entered the Protectorate. With measures prohibiting the movement of animals, not least across state borders, the entire extraction seemed to rest on a knife edge.¹³⁴ It would be an enormous set back, especially as the Colonial secretary,

¹³¹ P. Phoofolo, ¹Face to Face with Famine: The BaSotho and the Rinderpest, 1897-1899', *Journal of Southern African Studies*, Vol. 29, No. 2, (2003), pp. 503-527 (pp. 503-504).
 ¹³² Two conferences were called on the initiative of the Cape government, see C. van Onselen, ¹³² Reactions to Rinderpest in Southern Africa 1896-97', p. 474; G. Miescher, 'The Rinderpest Cordon of 1896–1897', in *Namibia's Red Line: The History of a Veterinary and Settlement Border*, ed. G. Miescher (New York: Palgrave, 2012), pp. 19-42 (p. 20).

¹²⁹ Special Report on Rinderpest in South Africa March 1896-February 1897 (London: H.M.S.O., 1896), p. 32; C. van Onselen, 'Reactions to Rinderpest in Southern Africa 1896-97', *The Journal of African History*, Vol. 13, No. 3 (1972), pp. 473-488 (p. 473).

¹³⁰ British Parliamentary Papers, Correspondence relating to the Outbreak of Rinderpest in South Africa in March 1896 (c.8141), lix, 1896, p. 51; P. Phoofolo, 'Epidemics and Revolutions: The Rinderpest Epidemic in late nineteenth-century Southern Africa', *P&P*, Vol. 138 (1993), pp. 112-143 (p. 114).

¹³³ Anon., *Agricultural Journal of the Cape of Good Hope*, Vol. 10, No. 4, (February, 1897), p. 222. By November 1897, it reached Rhodes' estate at Groot Schuur just outside of Cape Town. See, *Eastern Province Herald*, 12 November 1897.

¹³⁴ In a telegram sent to Chamberlain, Alfred Milner declared 'the current Cape Rinderpest Regulations prevent removal of giraffe at present but will probably be relaxed shortly... departure of keeper should be delayed'. See, A. Milner to Joseph Chamberlain, 11 June 1897, ZSLA, GB 0814 BADG, Frederick Graham Papers.

Joseph Chamberlain, was in charge of the jubilee's Festival of the British Empire; the giraffe's arrival was intended to complement the aesthetic of imperial unity. When it came to the sovereign, however, it was imperative that these qualms be overcome.

Therefore, with everything meticulously planned, Windhorn sailed for southern Africa on 3rd July, arriving on 25th July, and spent the next eleven days in Cape Town to inspect the giraffe's travel box before visiting his brother in the Orange Free State.¹³⁵ The giraffe was still in Gananaka so Windhorn began the thousand mile journey north to Mafeking where he reported to the residentcommissioner, Mr Newton, on 14th August, travelling to Lobatse the following day to meet the acting resident-commissioner, Mr W. H. Surmon. Here Surmon accompanied Windhorn to Kanye where they reached camp late that evening. They visited the Chief of Batheon the following day. With formalities concluded and help provided by the local police force, the giraffe was placed under Windhorn's care to begin the long and cautious journey back to the coast [figure 21]. Walking thirty miles to Lobatse, the giraffe waited another three days before the train arrived for their departure to Cape Town. Although there were no problems along the way, extra care was taken against rinderpest, especially when the giraffe (for want of headroom) was required to walk around the tunnels along dirt tracks.¹³⁶ However, as Hartmann Just, a bureaucrat at the Colonial Office put it, that 'time of the year [was] as good as any for the animals to travel'.¹³⁷ The giraffe arrived at Cape Town on 27th August and seemed to be in good health. In accordance with the arrangements, the giraffe was granted free conveyance on the Union-Castle liner Roslin Castle and sailed for England five days later.¹³⁸ Its arrival was set to be another show stopping spectacle for the ZSL and a momentous occasion of imperial pride and colonial endeavour.¹³⁹ Anticipating its arrival, newspapers began to imply that Daisy, the female giraffe at the gardens,

¹³⁵ H. Windhorn to P. L. Sclater, 4 August 1897, ZSLA, GB 0814 BADW, H. Windhorn Papers. ¹³⁶ A few years earlier a giraffe belonging to Cecil Rhodes had accidentally been killed when the train carrying it failed to stop for a tunnel. As a precaution, Sclater raised the tunnel concern with the Colonial Office. See, P. L. Sclater to H. W. Just, 20 May 1897, ZSLA, GB 0814 BADJ, Hartmann W. Just Papers.

 ¹³⁷ H. W. Just to P. L. Sclater, 20 May 1897, ZSLA, GB 0814 BADJ, Hartmann W. Just Papers.
 ¹³⁸ H. W. Just to C. Bartlett, 13 September 1897, ZSLA, GB 0814 BADJ, Hartmann W. Just Papers.

¹³⁹ 'King Khama's Giraffe', *ILN*, 18 December 1897, p. 14; *Daily Record*, 14 July, 1897, p. 3.

would soon have a mate that was 'likely to attract considerable attention', describing the jubilee giraffe as a 'token of solidarity with the imperial idea'.¹⁴⁰

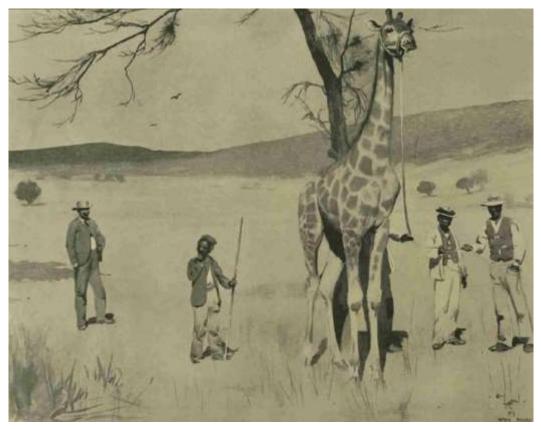


Figure 21. The Jubilee Giraffe in Africa, presented to Queen Victoria by King Khana, before the voyage to England. 'King Khana's Giraffe', *Illustrated London News*, 18 December 1897.

Unfortunately, the celebrations proved to be premature. The voyage to Britain was a particularly rough crossing and caused the giraffe to suffer from severe sea sickness. As one newspaper commented, when 'the sufferer has peculiar abdominal arrangements complicated by several yards of neck, sea sickness must be a very exhausting complaint'.¹⁴¹ Recording the journey in his diary, Windhorn noted that the giraffe stopped feeding eight days into the voyage and would not take anything but bread up until 11th September, when it finally left off food altogether.¹⁴² The giraffe refused to eat for another nine days, but eventually landed at the East India dock on 20th September; having spent twenty days at sea. The dockside quartermaster saw that the animal had suffered a great deal during the voyage, and despite having had 'a most comfortable quarters

¹⁴⁰ Eastern Morning News, 17 August 1897, p. 5; Sheffield Daily Telegraph, 26 July 1897, p. 5.

¹⁴¹ Pall Mall Gazette, 21 September 1897, p. 2.

¹⁴² H. Windhorn diary, ZSLA, GB 0814 BADW, H Windhorn Papers.

forward, and a generous supply of tarpaulins' to shelter under in bad weather, the creature was in a very bad state.¹⁴³ In fact, it was in the quartermaster's opinion that it would have died at sea had it not been for the care and experience of Mr. Windhorn, who had done everything to try and comfort the animal.¹⁴⁴ By the time the giraffe was ready to leave the dockside, its colour had improved and it was in fairly good condition. It left for the gardens on a Pickford trolley and caused a great amount of interest along the way. As in southern Africa, some of the railway arches were negotiated, leaving only a few inches of space as the convoy ventured down Euston Road to avoid the lower arches of Battle Bridge. The convoy entered the gardens of the Zoological Society just before dusk, but it soon became apparent that this had turned into a funeral procession. The giraffe reached the house, and the enclosure doors were opened. Those in charge rejoiced that the giraffe could now be cared for in a manner it ought to be, but, instead they 'found him lying on the floor, his beautiful head buried deep into the straw, just dead' on the threshold of its enclosure.¹⁴⁵ The romance of a giraffe union had been 'nipped in the bud', and Daisy the female giraffe, though not aware of it, was said to have 'suffered the tragedy related in the old English ballad Bridal of Malahide: "In one morning tide, a wife and a widow, a maid and a bride"'.¹⁴⁶ Similar to Jumbo and Alice's anthropomorphic love life, the high life of marriage would not take place.¹⁴⁷ In accordance with the terms of his agreement, Windhorn was paid £75 for his three months abroad, plus £40 for his expenses. He was also given half the gratify fee for landing the giraffe in England, having 'had a very difficult task to perform' in which 'he did his very best to carry it out'.¹⁴⁸

The jubilee giraffe was dead, but it was not the end of the quadruped's story. Saddened by events, the Queen asked the newly appointed ZSL superintendent and former associate of the Prince of Wales, Clarence Bartlett, to have the giraffe buried at Windsor Castle and for the skin to be displayed at the Natural History Museum. In essence, the jubilee giraffe would become a museum centrepiece by

¹⁴³ South Wales Echo, 21 September 1897, p. 2.

¹⁴⁴ Ibid., p. 2.

¹⁴⁵ 'It is a rare thing to see a dead donkey; certainly it is rarer still to see a dead giraffe',

Lincolnshire Echo, 21 September 1897, p. 2; *Dundee Evening Telegraph*, 15 April 1898, p. 6. ¹⁴⁶ *Lincolnshire Echo*, 21 September 1897, p. 2.

¹⁴⁷ Lancashire Evening Post, 21 September 1897, p. 2.

¹⁴⁸ Draft letter by P. L. Sclater to F. Edwards, October 1897, ZSLA, GB 0814 BADE, Fleetwood J. Edwards Papers.

royal decree; a public spectacle in a different guise. The specimen would continue to represent the existing world system, but now, very literally, as an unmovable object of empire. Even in death, the giraffe was to be given a life as a sustaining 'token of solidarity with the imperial idea'.¹⁴⁹ The ZSL's prosector set to work and was able to save the skin, skull, and leg bones for mounting, but the giraffe was too young to save the entire skeleton.¹⁵⁰ Thus, as the *Pall Mall Gazette* lamented:

Perhaps, too, the Jubilee giraffe felt that the honours showered upon him where more than a four-year-old could, even if head and shoulders taller than captain Ames, lift up to. Again, maybe, it knew that the fervid interest it would excite, as the gift of its donor, in the bosom of Exeter Hall would be more than one accustomed to unregenerate life in a South African desert could face. This Alas! we now shall never know; and it only remains for us to mingle our tears - tears, bitter, unavailing tears - for one untimely death.¹⁵¹

The case of the jubilee giraffe is a fitting culmination of the ZSL's imperial entanglements at the end of the nineteenth century, as the animal was portrayed as a living embodiment of an imperial ideal. Despite dying on the threshold of its enclosure, the sensation of the jubilee giraffe was not only heightened by its rarity in European zoos in the 1890s but also its association with Queen Victoria and the wider jubilee celebrations. As a living spectacle, the giraffe was intended to be an integral part of the 'jubilousity of the jubilee', with commentators describing it as a zoological spoil of empire and a gift of imperial significance.¹⁵² The giraffe was also more than just a gift of homage to Queen Victoria. For King Khana, it was a symbol of his homeland and a statement of his dynastic power, whilst for the ZSL it was a long-term investment, a potential breeding bull that could revitalise the Society's giraffe collection and encourage visitors into the gardens during the royal occasion. Equally, for the general public, the jubilee giraffe was portraved as a living symbol of Africa, effectively becoming part of the jubilee's wider imperial message, conveying a broader connotation of colonial integrity and stability - perhaps its death was a more realistic reflection of the tensions of empire. Nevertheless, the jubilee giraffe's procurement was meant to reinforce claims of imperial unity, substantiating the perspective that the ZSL collection was an insular reflection of the British Empire – a collection that was 'larger and better

¹⁴⁹ Sheffield Daily Telegraph, 26 July 1897, p. 5.

¹⁵⁰ C. Bartlett to P. L. Sclater, 24 September 1897, ZSLA, GB 0814 BADB, Clarence Bartlett Papers.

¹⁵¹ Pall Mall Gazette, 21 September 1897, p. 2.

¹⁵² *The Graphic*, 26 June 1897, p. 795.

than any other'.¹⁵³ Although this did not transpire, the task of acquiring, transporting, and the giraffe's initial reception, certainly implied that this was the intended desire. It is therefore quite fitting to note that five years later, the Prince of Wales, by then Edward VII, would present the ZSL with a similar gift, offering two giraffes to the gardens following his coronation in 1902. Unlike the jubilee giraffe, though, the king's giraffes were presented on behalf of Colonel Bryan MacMohan, the newly appointed governor of Kordofan in central Sudan, a poignant expression of Britain's re-established influence in the region.

Conclusion: Animals as symbolic capital

Behind every animal gifted to the ZSL was an array of individuals accredited with acquiring specimens that survived the journey to the zoological gardens in Regent's Park. Typically named in the Society's annual reports, these benefactors acted as explicit nodal points for the ZSL, ranging from soldiers, governor generals, and royalty. They moved in different social circles and encountered animals in an array of settings, but, as a collective, they acquired the majority of animals for the ZSL during the latter half of the nineteenth century. As the chapter has shown, the majority of these benefactors were named individuals who worked in colonial spaces or at least in propinguity to these localities, enabling the ZSL to build a colonial-infused collection for visitors to experience. The methods employed to capture animals were as wide-ranging as those who sought to present them to the Society, becoming ever more assorted as the manifestations of formal colonialism took hold. For those who actively engaged in these processes, their interactions illustrate how inter-personal relationships encouraged animal trading patterns, including when, how, why, and who tapped into Britain's imperial networks to stock the Society's menagerie. Although there was never an overarching framework or standardised mechanism for these processes, as the century progressed there was a clear and discernible link between the ZSL's procurements and colonial environments.

The locales in which many of these animals were sourced were equally diverse, with animals captured in different environments and under different

¹⁵³ *Daily News*, 17 August, 1880, p. 3.

socio-economic regimes. Indeed, to repurpose the description of distant landscapes described in an early guidebook of the gardens, behind every zoo exhibit was a 'pathless desert and sandy waste...towering peaks, the wilder crags of the Himalayan heights...the green vales of that lofty range whose lowest depths are higher than the summits of European mountains...dark lagoons of the African rivers, enshrouded by forests whose rank green foliage excludes the rays of even a tropical sun'.¹⁵⁴ These descriptions were part of a fetishised worldview and a textualised vision of an imperial agenda (perhaps even of future possession) that were evidenced by the thrill of the textural and implicit luxuriance of other lands.¹⁵⁵ Yet beyond the proses of the guidebook's imaginative exploration, the passage also showed that the natural habitats of captured animals – the landscapes themselves – can be seen as tangible elements in the practices and execution of animal procurements. Even the guidebook relied on information acquired from actual colonial spaces and procurement practices, generating a surface level description of 'the foreign' to appeal to its readers.¹⁵⁶ The particularities of ecological settings were driving factors in global trading patterns and animal-human interactions, fluctuating as different geographic factors affected a trade's functioning.¹⁵⁷ Such forces could be positive or detrimental to an extraction, which for the jubilee giraffe, was not only instigated by geopolitical circumstances in North Africa, but later affected by the rinderpest outbreak across sub-Saharan Africa and stormy seas en route to England. Whether the nature of these features were transparent or subtle, environmental factors underpinned encounters between humans and non-humans, forming the basis for animal acquisitions gifted to the ZSL gardens in the latter half of the nineteenth century.

The history of the ZSL's animal acquisitions and the logistics of sourcing animals, however, cannot stop here. Going forward, there are still avenues to explore and additional perspectives to address. The somatic actions of non-

¹⁵⁴ *The Zoological Gardens, Regent's Park - A Handbook for Visitors* (London: R. Tyas, 1838), p. 7.

 ¹⁵⁵ R. W. Jones, "The Sight of Creatures Strange to our Clime': London Zoo and the Consumption of the Exotic', *Journal of Victorian Culture*, Vol. 2, No. 1 (1997), pp. 1-26 (p. 7).
 ¹⁵⁶ R. W. Jones, 'The Sight of Creatures Strange to our Clime', p. 7.

¹⁵⁷ M. Chaiklin & P. Gooding, 'Introduction: Investigating Animals, Their Products, and Their Trades in the Indian Ocean World' in *Animal Trading Histories in the Indian Ocean World*, ed. M. Chaiklin, P. Gooding & G. Campbell (London: Palgrave, 2020), pp. 1-26.

human actors, like the jubilee giraffe, were just as important in the processes of procurement, influencing formats beyond human collaboration and humandirected intentions. When Daisy and the jubilee giraffe were acquired, plans were shaped around their geographic accessibility and the animals natural habitats, rather than the human-centred intentions and coordination factors alone. To some extent, the animals' natural geographic range trumped the importance of

shaped around their geographic accessibility and the animals natural habitats, rather than the human-centred intentions and coordination factors alone. To some extent, the animals' natural geographic range trumped the importance of the sponsor. The embodied agency of animals could affect the outcomes and interactions of acquisitions, whilst the risks of failure were a constant issue; success was far from guaranteed.¹⁵⁸ Cargo mortality rates and indiscriminate killings reveal that a frightening portion of animals did not survive the journeys, while others were immediately slain in the process of capture, a sobering reality that is often overshadowed by those who made it (albeit physically exhausted or undernourished) to the zoological gardens. The archival record only reveals so much about these global practices, which, like R. Fish and I. Montagu's list of 'distinguished names from among the many British abroad', only tends to mention benefactors who were deemed worthy or responsible for the entire operation. The records only identify those who were given the overall credit, neglecting local hunters, dockside workers, ship crews, and railway staff who were just as important to these processes. They physically captured the animals, loaded them on to ships, tended to them at sea, and organised their transfers at stations. Like the disambiguation of the term empire, this is where the research needs further nuancing. The final chapter will therefore take the lead on this perspective, and analyse the interlocking points of communication beyond the 'big names' involved in the 'discovery' of a new and curious animal to western science at the turn of the century – the okapi.

¹⁵⁸ For more on embodied agency see, C. M. Hoes, 'Live Cargo, Dead Ends: The German Wildlife Trade in Global Perspective', *Bulletin of the German Historical Institute*, Vol. 70 (Fall, 2022), pp. 67-96.

Chapter V

Science and the Nature of Discovery: The Scramble for the Okapi ca.1901-1910

In an 1891 article published in *Nature*, Richard Lydekker, a prominent English naturalist, vertebrate paleaontologist, and ZSL fellow, set out to explain the productive assets of the giraffe and their extinct giraffid allies. In maintaining the accepted zoological understanding of the giraffe, Lydekker stated:

Although coming within the well-defined group (the sole existent representative of the genus Giraffa) [the giraffe] stands markedly alone among the mammals of the present epoch; although, on the whole, its nearest living relations appear to be the deer (Cervidae). Moreover, not only is the giraffe now isolated from all other ruminant in respect of its structure, but it is also exclusively confined to that part of the African continent which constitutes the Ethiopian region of distributionists. When, however, we turned to the record of past epoch of the earth's history, we find that both the structural and distributional isolation of the giraffe are but features of the present condition of things.... Then, again, with regard to their [extinct] allies, the researches of palaeontologists have been gradually bringing to light remains of several large extinct ruminant from various regions, which are more or less nearly related to the giraffe, but whose affinities appear to be so complex and so difficult to decipher, that not only do they remove the stigma of isolation from that animal, but even render it well-nigh impossible to give a definition of the group of more or less giraffe-like animals, by which it may be distinguished on the one hand from the deer (Cervidae), and on the other form the antelopes (Bovidae).1

The statement was nothing out of the ordinary, as it maintained the accepted zoological understanding that the giraffe was the sole existent representative of the genus *Giraffa*, and incidentally the only living member of the family Giraffidæ. The giraffe had been classified as a unique and somewhat anomalous ruminant, geographically confined to sub-Saharan Africa with no other living animals sharing its lineage. In the 1830s and 1840s however, following a series of geological surveys conducted in India, fossilised remains of giraffe-like animals were uncovered in the Sivalik Hills, immediately challenging the geographical specificity of the living species. The finds gave reason to believe that the giraffe, along with extinct giraffids found in the fossil state, had once lived in distant

¹ R. Lydekker, 'The Giraffe and its Allies', *Nature*, Vol. 44 (1891), pp. 524-526.

epochs and across a much wider geographical basis than previously thought.² Subsequently, with the rise of Darwinian evolutionism, these extinct giraffe-like relatives were painstakingly ordered and incorporated into the Giraffidæ family, sorting them into fossil taxa, including subfamilies, tribes, and individual species.³ Yet, throughout this entire process, the giraffe continued to stand alone as the extant representative of the taxonomic family.

However, at the turn of twentieth century, just a decade after Lydekker published his article in *Nature*, this uninterrupted assumption was brought into question, and henceforth changed for good. When revisiting the topic in 1908, Richard Lydekker remarked:

The commencement of the twentieth century will always be memorable in natural history annals as the date of the discovery of the existence in the Semliki Forest of East Central Africa of a second generic representative of the *Giraffidæ*, in the shape of that wonderful animal the okapi.⁴

In the time between Lydekker's two statements, the emergence of a newly discovered species, the okapi, fundamentally changed the basic assumptions of the Giraffidæ family, which, since its inception as a Linnean classification order, had more or less fixated on the supposed solitary extant status of the giraffe. As a distinct yet comparative, and most importantly, *living* relative of the giraffe, the 'discovery' of the okapi was seen as 'one of the most exciting events in the history of modern mammalogy'.⁵ To this day, at least within the western scientific tradition – the local peoples of the Ituri forest were well aware of okapis long before Europeans knew about them – the okapi remains the largest most recent living mammal species to be classified as a separate genus.⁶ The global

² H. Falconer, 'On Some Fossil Remains of Anoplotherium and Giraffe, from the Sewalik Hills, in the north of India', *Proceedings of the Geological Society of London*, Vol. IV, Part II – 1843-1844, No. 98 (1844), pp. 235-249.

³ P. J. Bowler, *Evolution: The History of an Idea*, 3rd edition (Berkeley: California University Press, 2003), pp. 224-273.

⁴ R. Lydekker, *The Game Animals of Africa* (London: R. Ward, 1908), p. 375.

⁵ E. H. Colbert, 'The Relationships of the Okapi', *Journal of Mammalogy*, Vol. 19, No. 1 (Feb. 1938), pp. 47-64 (p. 47).

⁶ For discussions on the development and uses of systematic taxonomy see, J. Sigwart, M. D. Sutton, K. D. Bennet, 'How Big is a Genus? Towards a Nomothetic Systematic', *Proceedings of the Linnean Society*, Vol. 183 (2018), pp. 237-252; A. T. Hopwood, 'The Development of Pre-Linnean Taxonomy', *Proceedings of the Linnean Society*, Vol. 170 (1959), pp. 230-234; E. Mayr, *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge, MA: Harvard University Press, 1982); E. W. Holman, 'Evolutionary and Psychological Effects in Pre-Evolutionary Classification', *Journal of Classification*, Vol. 2 (1985), pp. 29-39.

recognition of the okapi was one of the most noteworthy zoological discoveries of the twentieth century.

As interesting as this point may be, the nature of this animal's discovery, and the process of its scientific classification, remains almost as elusive as the animal itself. Within most mammal taxonomy books, the okapi's discovery is typically explained in a rudimentary way, leading straight from its 'discovery' in 1901 to its immediate binomial classification Okapia johnstoni. The nature of its discovery and the process of its classification are neatly presented as a straightforward and uncomplicated narrative, paying little or no attention to its initial scientific recognition. Accordingly, this chapter focuses on the conduct of zoological science and the nature of discovery to explore how zoological knowledge concerning the okapi was formulated in association with the ZSL scientific community. It will investigate how the okapi was classified, by whom, and by what means the process(es) of forming its nomenclature were conducted. In part, it proposes to readdress the discovery narrative, roughly between 1901 and 1910, which has traditionally been seen as an individual achievement of Harry Johnston. It will also re-examine the so-called objectivity of scientific tradition that has perpetuated the okapi narrative as a lost and found, claimed and named case. More broadly, the chapter will demonstrate that zoological classifications and the production of scientific knowledge was a subjective and ever-changing process that occurred across a spatial and temporal paradigm.⁷

The okapi, a large African mammal found in the Ituri rainforest on the border region between Uganda and the then Congo Free State, was first encountered by Europeans at the tail end of the scramble for Africa, and in one of the last vestiges of the elusive 'dark continent'. Although endemic to the Ituri region, the case of the okapi discovery, and the scramble for specimens that later ensued, will demonstrate how personal, social, and political circumstances all interconnected on a global scale during the early stages of this encounter. Even within the wider European scientific context, the scramble for the okapi underpinned strong intra-national perspectives, with participants aiming to secure specimens for the benefit of different nations. Thus, the scramble for the okapi

⁷ For example, see, W. Blunt, *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976), pp. 241-244.

highlights some of the tensions and collaborative elements in the first decade of the okapi encounter, drawing attention to the process of disciplining the animal within the western scientific tradition.⁸

In order to achieve this, the chapter is divided into three sections, each building upon the last to provide a contextual basis for the okapi encounter and its western classification. The chapter will begin with a brief overview of the scientific activities conducted at the ZSL prior to 1900. This will be followed by a section outlining how the institution engaged with scientific practitioners in Eastern Africa, particularly focusing on the development of colonial zoological science in British East Africa and Uganda in the last few decades of the nineteenth century. This will help contextualise the classification and scramble for okapis that is addressed in the final section of the chapter.

Science at the Zoological Society of London

The conduct of scientific business was a crucial element of the Zoological Society of London and was a central objective established in the original charter of the Society. The purpose of forming the ZSL revolved around the 'advancement of Zoology and Animal Physiology', introducing new and curious subjects of the animal kingdom to Britain.⁹ Founded upon such principles, much of the Society's business outside the gardens' establishment focused on the expansion of zoological knowledge that would be productive to science, predominantly drawing attention to animals unknown to western science via its scientific meetings. Fellows of the Zoological Society were encouraged to communicate their efforts at these meetings, an exercise the first meeting described as exciting 'fresh discoveries, by the acquisition of additional subjects of investigation...[so] others would be stimulated by their example to pursue similar inquiries with equal zeal'.¹⁰ Indeed, the object of scientific practice at the Society's meetings to understand it in an

⁸ S. Swart, 'O for Okapi', in *Animalia: An Anti-Imperial Bestiary for our Times*, ed. A. Burton & R. Mawani (Durham, NC: Duke University Press, 2020), pp. 132-136 (p. 135); M. Cole, 'From "Animal Machines" to "Happy Meat"? Foucault's Ideas of Disciplinary and Pastoral Power Applied to 'Animal-Centred' Welfare Discourse', *Animals*, Vol. 1, No. 1 (2011), pp. 81-101.
⁹ P. L. Sclater, *A Record of Progress of the Zoological Society of London during the Nineteenth Century* (London: W. Clowes, 1901), p. 1.

¹⁰ Proceedings of the Zoological Society of London, Part I (1833), p. 1.

intellectual manner. The ZSL, as a scientific institution, therefore evolved into an influential hub of scientific research alongside the gardens' development, bringing together different groups of natural history enthusiasts, which, by the end of the century, became a specialised scientific community.¹¹

The development of this institutional community was neither straightforward nor a homogenous process, but, over the course of the century, it matured into a renowned body of career-driven zoologists respected by institutions and practitioners worldwide. Although there should be some caution when applying the term 'scientist' to this group or to the activities they pursued as 'scientific' – labels that also evolved over time – there was nevertheless a move towards what can be described as a professionalising scientific community by 1900.¹² The conduct of this community can reveal that the nature of zoological science was a complex activity, being just as much a social and practical activity as an intellectual one. Numerous people were involved in the processes of zoological knowledge making in a variety of ways. The study of natural history was, after all, a science of networks, 'woven out of connections and communications between continents, oceans, native peoples, diverse centres of scholarship, and European and [non-European] naturalists, all against a backdrop of complex international disputes'.¹³

The general meetings for scientific business were typically considered the 'official space' for scientific discourse at the ZSL, and were always a central concern for the prevailing councils. First introduced in January 1833, the meetings occurred twice a month in the ZSL's office in central London, beginning at 8 o'clock in the evening, and were open to fellows of the Society.¹⁴ In a typical

¹¹ B. Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987), pp. 215-257.

¹² See 'The Scientific Community' in, D. Knight, *The Nature of Science: The History of Science in Western Culture since 1600* (London: Andre Deutsch, 1976), pp. 82-104; J. A. Caron, "Biology' in the Life Science: A Historiographical Contribution', *HoS*, Vol. xxvi (1988), pp. 223-268.

¹³ R. H. Duarte, 'Between the National and the Universal: Natural History Networks in Latin America in Nineteenth and Twentieth Centuries, *Isis*, Vol. 104, No. 4 (2013), pp. 777-787 (p. 778). Also see, L. López-Ocón, 'La Comisión Científica del Pacífico: De la ciencia imperial a la ciencia federativa', *Bulletin des Institutes Françaises de Études Andines*, Vol. 32 (2003), pp. 479-515 (pp. 486–489).

¹⁴ From 1862 onwards, scientific meetings between July and October were discontinued. See, ZSLA, CMM, 21 May 1862.

sitting, the meetings began with the minutes of the previous session before individual papers and correspondences with other scientific bodies were read. As a forum for scientific debate, materials typically took the form of preprepared papers and letters sent to the secretary, which were usually read aloud to the members [figure 22]. Alongside these papers, drawings and specimen samples such as skins, bones, and eggs were frequently exhibited, usually presented by field naturalists and corresponding members, which added a substantive element to the discussions.¹⁵ With the improvement in technology, equipment and scientific instruments were later incorporated into the meetings, including microscope slides and photographs, as well as the occasional live animal.¹⁶ Topics varied considerably, ranging from solitary specimens and particular species, to entire collections and expedition compendia.¹⁷ The size and type of animals examined was equally wide-ranging, including papers on insects and worms, through to whales and other large mammals.¹⁸ Even when other specialist societies were founded, such as the Royal Entomology Society (1833), the British Ornithologist Union (1858), and the Malacological Society (1893), papers on various animals continued to appear at the ZSL meetings.

Prospective manuscripts were selected by means of a peer-review process, which if accepted, would be published in the Society's annual journal, *The Proceedings of the Zoological Society*. Similar to the Royal Society and the

¹⁵ G. Bennet, 'Exhibition of specimens of the Egg of the Mooruk', *PZS*, Part XXVII (1859), p. 351.

¹⁶ In 1862 microscope slides were used to display a tapeworm, and the first mention of a photograph was in 1865 regarding two Gayals from Burma. See, T. S. Cobbold, 'Exhibition of a series of Microscopic Preparations of rare Entozoa', *PZS* (1862), p. 326; P. L. Sclater, 'Exhibition of a Photograph of a Pair of Gayals Intended for the Menagerie', *PZS* (1865), p. 465. A live polar bear cub was also exhibited in 1861, see, A. D. Bartlett, 'Exhibition of Specimens of Young Polar Bears Born in the Menagerie', *PZS* (1861), p. 391.

¹⁷ For example see, J. Salmon, 'Exhibition of a specimen of Baillon's Crake with Seven Eggs', *PZS*, Part XXVI (1858), p. 560; J. Anderson, 'On the Species and Dentition of the Southern Asiatic Shrews, preliminary to a Monograph of the Group', *PZS* (1873), pp. 227-235; S. J. Whitmee, and R. B. Sharpe, 'On a small Collection of Birds from the Ellice Islands, with a Note on other Birds found there', *PZS* (1878), pp. 271-273; J. Gould, 'On some Birds collected by Mr. John MacGillvray, the Naturalist attached to H. M. Surveying Ship Rattlesnake, lately sent home by Capt. Denham, the Commander of the Expedition (Australia and New Guinea)', *PZS*, Part XXIV (1856), pp. 135-138.

¹⁸ Numerous communications were made by the foremost naturalists of their day, and no meeting was regarded as the same. See, H. Scherren, *The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library* (London: Cassell & Co, 1905), p. 78.

Linnean Society journals, the first ZSL *Proceedings'* were modest volumes consisting of abstracts and short papers comprised of about 150-200 pages each.¹⁹ By 1848, the journal had become more prolific and the papers ceased to be just abstracts, issuing subsequent volumes with illustrated plates and figures.²⁰ It was often up to the author to find an illustrator, but if they themselves were talented enough, it was permissible for authors to reproduce their own images.²¹ Copies would then be ready for print, which, using a letterpress technique, were sold in coloured and uncoloured stock.²² As a result, a sizeable

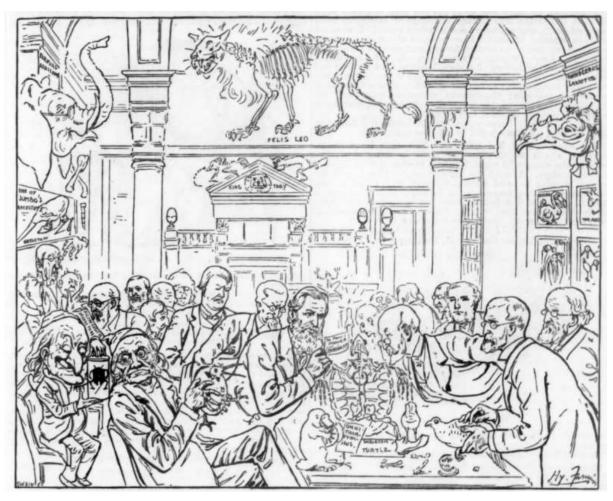


Figure 22. Printed Cartoon Captioned 'The Meeting of the Zoological Society, Hanover Square, 1880-1905', Natural History Museum Archive, WP 17/9.

¹⁹ M. A. Edwards, 'The Library and Scientific Papers, Part II', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 251-267 (p. 254).

²⁰ Ibid., p. 254.

²¹ N. W. Cayley, 'John Gould as an Illustrator', *Emu – Austral Ornithology*, Vol. 38, No. 2 (1938), pp. 167-172.

²² Each volume cost approximately 15 shillings, but upon paying an extra guinea, members were privileged an annual supply for the same year in advance of the anniversary meeting, held in April each year. This applied to fellows, corresponding, and foreign members of the ZSL.

margin was taken from the sale of these publications, and between 1848 and 1854, the Society made a handsome profit of £1449.²³ Three years later it was decided that the journal should be expanded, believing sales 'may be increased if the volumes appear[ed] regularly and of nearly uniform size'.²⁴ Additional copies were available to fellows at a reduced price, and in 1860, accompanying illustrative volumes were made for the years 1848-1860, cataloguing all the images of birds, mammals, reptiles and fish, mollusca, and annulosa described at the meetings.²⁵

Alongside the *Proceedings*, the ZSL also published the quarto journal, *Transactions of the Zoological Society*, of which the first full volume was completed in 1835. Compared to the *Proceedings*, the *Transactions of the Zoological Society* were much more selective, containing only a handful of zoological memoirs and 'rather more important papers' from the scientific meetings.²⁶ Only eleven volumes of the *Transactions* were published between 1849 and 1898, and contained 187 memoirs.²⁷ Both the *Transactions* and the *Proceedings* were available to fellows and friends of the Society, and were often presented as gifts to benefactors of the menagerie. Furthermore, it was expedient that the ZSL present these journals to other institutions around the world, which in turn, exchanged their own publications.²⁸ Consequently, the library collection increased exponentially, increasing from around 460 titles in 1854 to 4200 titles in 1883, and 'in terms of the total number of volumes from 1000 in 1848 to 15000 in 1887'.²⁹ By 1899, the list of organisations receiving the Society's publications had grown to over one hundred institutions, compared to just thirty-six in 1849,

²³ 'Proceedings – Return of Profits and Loss, Feb 1857', Returns, Reports etc 1833-1951, ZSLA, GB 0814 BDAA.

²⁴ ZSLA, CMM, 4 March 1857.

²⁵ Fellows were entitled to a 25% reduction in fees for the *Proceedings*. See, 'Zoological Society of London', *Field*, 4 October 1862, p. 308. *Proceedings of the Zoological Society of London, Illustrations 1848-1860*, Vols. 1-6 (London: Longman, 1860).

²⁶ M. A. Edwards, 'The Library and Scientific Papers, Part II', p. 254.

 ²⁷ By comparison, between 1880 and 1890 alone, nearly twelve hundred communications were published in the *Proceedings*. See, H. Scherren, *The Zoological Society of London*, p. 196.
 ²⁸ For example, on 5th June 1861, the South Australian Institute of Adelaide, the Acclimatisation Society of Paris, and the Geological Society of London, all requested copies of the illustrated proceedings and other publications from the Zoological Society. See, ZSLA, CMM, 5 June 1861.

²⁹ R. Fish, 'The Library and Scientific Publications, Part I', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 233-252 (p. 242).

and across twenty-four countries.³⁰ Thus, the two journals became the main organs of the Society's publishing capabilities, and after 1886, the Society assumed the responsibility of the *Zoological Record*, an annual summary of the works conducted by naturalists all over the world. Like the Society's internal journals, the *Zoological Record* improved the ZSL's scientific standing, which, according to Charles Cornish, became 'the chief scientific production of the Royal Zoological Society...printed with ink on paper intended to last'.³¹

The circulation of these journals increased the Society's quantitative outputs demonstrably, but to view these publications as static entities can eclipse the nature of their qualitative development.³² Takashi Ito has already noted that those involved in the ZSL community prior to 1847 were not, in the modern sense of the word, a 'professional' community, because the language that separated them from the public was only just starting to evolve.³³ Indeed, this is can be seen in the relatively amateurish and often uncritical approach of early contributors to the *Proceedings*, especially compared to the more specialist papers later in the century.³⁴ The development was gradual, but it demonstrated a change in the type of people organising, presenting, and attending the scientific meetings. Fellows attending the meetings slowly transitioned from gentlemanly menagerists and wealthy natural history enthusiasts, to career-oriented naturalists – a consequence of the professionalisation and specialisation of scientific disciplines that emerged in the mid-nineteenth century.³⁵ The professionalisation of

³⁰ This included three institutions in South America and the Science College of the Imperial University in Japan. See, RoC (1849), pp. 8-9; RoC (1900), pp. 14-17; ZSLA, CMM, 1 May 1895.

 ³¹ C. Cornish, *Sir William Henry Flower: A Personal Memoir* (London: Macmillan, 1904), p. 48.
 Also see, G. D. R. Bridson, 'The Zoological Record – A Centenary Appraisal', *Journal of the Society for the Bibliography of Natural History*, Vol. 5, Iss. 1 (1968), pp. 23-34; S. A. Neave, 'Concerning the Zoological Record', *Science*, Vol. 112, No. 2921 (Dec., 1950), pp. 761-762.
 ³² A. Olechnicka, A. Ploszaj & D. Celińska-Janowicz, *The Geography of Scientific Collaboration* (London: Routledge, 2019), pp. 107-132.

³³ T. Ito, *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014), pp. 107-137; A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part I', *HoS,* Vol. 23, No. 2 (1985), pp. 153-185; J. Bastin, 'The First Prospectus of the Zoological Society of London: New Light on the Society's Origins', *Journal of the Bibliography of Natural History*, Vol. 5, No. 5 (1970), pp. 369-388.

³⁴ For instance, Paul Farber has explored the specialisation of ornithology. See, P. L. Farber, *Discovering Birds: The Emergence of Ornithology as a Scientific Discipline, 1760-1850* (Baltimore: JHUP, 1997), pp. 68-78, 92-120.

³⁵ W. H. Brock, 'Advancing Science: The British Association and the Professional Practice of Science' in *Parliament of Science: The British Association for the Advancement of Science 1831-1981*, eds. Roy M. McLeod and P.D.B. Collins (Northwood: Science Reviews, 1981), pp.

zoological sciences had a profound effect on the nature of the ZSL's scientific activities, as well as the types of people willing and able to access its journals. Yet, for those who continued to acquire copies, the Society's journals were a valuable source of interaction, and a useful medium for conversing with fellow enthusiasts, colleagues, and naturalists.

Thinking beyond the technical and professional developments, however, it is worth noting the other components that went into producing these journals, including how the information was generated within. Private correspondence and conversations leading up to the scientific meetings, for instance, were vital components in the Society's production of knowledge configuration, influencing the information that was possibly rejected or added to the published format.³⁶ Held in the evening, it is likely the scientific meetings included a certain social element, possibly conversing over drinks and cigars.³⁷ Similarly, Sofia Åkerberg has explored the role of the zoological gardens in relation to these meetings, drawing attention to the living animals that were discussed at the scientific meetings.³⁸ Although just eight percent of papers between 1830 and 1900 concerned living animals from the gardens, the availability of the collection was a notable advantage to authors, providing them with easy access to potential specimens.³⁹ The Society's prosectorial post and Zootomy Committee, both

^{89-117 (}p. 91); H. Ellis, 'Knowledge, Character and Professionalisation in Nineteenth-Century British Science', in *Politics, Professionals and Practitioners*, ed. W. Robinson, R. Freathy, J. Doney (London: Routledge, 2017), pp. 57-71.

³⁶ For insight into the peer-review process and the politics of rejected papers see, Alexander Stoeger, '[Rejected!] – The Royal Society's Referee Reports from 1831 to 1945', at *British Society for the History of Science Annual Conference 2022*, Panel 7A Historiography, Methods, and Reviewers (Held 20th -23rd July, Belfast, 2022).

³⁷ As electable fellows of the Society, women were allowed to attend these meetings. However, looking through the attendance records of the meetings, it seems women did not or could not exercise this right in person. For more on women and other institutions see, D. E. Allen, 'The Women Members of the Botanical Society of London, 1836-1856', *BJHS*, Vol. 13, No. 45 (1980), pp. 240-254 (p. 247); K. Anderson, 'Culture and Nature at the Adelaide Zoo: At the Frontiers of 'Human' Geography', *Transactions of the Institute of British Geographers*, Vol. 20, No. 3 (1995), pp. 1-30 (pp. 7, 13, 19); M. Bell & C. McEwan, The Admission of Women Fellows to the Royal Geographical Society, 1892-1914: The Controversy and the Outcome', *TGJ*, Vol. 162, No. 3 (Nov. 1996), pp. 295-312; A. Maddrell, Teaching a Contextual and Feminist History of Geography through Role Play: Women's Membership of the Royal Geographical Society (1892–1893)', *Journal of Geography in Higher Education*, Vol. 31, No. 3 (2007), pp. 393-412.
³⁸ S. Åkerberg, *Knowledge and Pleasure at Regent's Park: The Gardens of the Zoological Society of London During the Nineteenth Century* (Umeå: Umeå universitets tryckeri, 2001), pp. 170-196.

³⁹ Once Philip Sclater became secretary in 1859, additions to the menagerie were also reported in the meetings, as were the new inhabitants of the insect house after 1885.

established in 1865, were just as resourceful, providing autopsies on the recently deceased in the gardens. The Zootomy Committee wielded a considerable amount of influence over who examined what and where, having the power to decide to which institutions and individuals an animal could be assigned. Once a dead house and dissecting room were built, the prosector could also dispose of separate animal body parts with greater efficiency, distributing different anatomical parts to different people.⁴⁰ In doing so, the prosector could 'make an examination with a view to determine the cause of death and so far as much that can be made without injuring the skin or skeleton or both', enabling others to conduct additional research elsewhere.⁴¹ Therefore, whilst captive animals may not have enhanced their own scientific status by simply living in the gardens, they were still a significant part of the scientific process, bridging the gap between recreational and 'legitimate science'.⁴²

Where conversations took place was equally important, as locality shaped interactions within a social and spatial context.⁴³ The Society's Zoological Dinning Club, established in 1866, was an informal space for discussing scientific matters, and was specifically set up to be a social event.⁴⁴ Although the dining club was incredibly exclusive, only admitting fifteen members, it catered for fellows who were 'habitual attendants at the scientific meetings and anxious to promote the efficiency of such meetings'.⁴⁵ For those who were admitted, the club served as an important social space, establishing connections that could help publish

⁴⁰ A. Wood, 'Doctors in the Zoo: Connecting Human and Animal Health in British Zoological Gardens, *c.* 1828-1890', in *Animals and the Shaping of Modern Medicine: One Health and its Histories*, ed. A. Wood, M. Bresailer, A. Cassidy & R. M. Dentinger (Basingstoke: Palgrave, 2018), pp. 27-69 (pp. 49-53).

⁴¹ ZSLA, CMM, 1 February 1865; Zootomy Committee Minutes, Vol. 1 – 1865-1921, ZSLA, GB 0814 RBA; Prosector's Report, 1865-1868, ZSLA, GB 0814 RAAC.

⁴² W. Swainson, *A Preliminary Discourse on the Study of Natural History* (London: Longman, 1834), p. 316.

⁴³ C. W. J. Withers, 'Place and the "Spatial Turn" in Geography and in History', *Journal of the History of Ideas*, Vol. 70, No. 4 (Oct. 2009), pp. 637-658 (pp. 638-644).

⁴⁴ *The Zoological Dinning Club, Minutes & Accounts Book Vol. 1 – 1866-1875*, 'Thursday, Jan. 10th 1867, Second Meeting, St James Hall', ZSLA GB 0814 EBA/EBAA.

⁴⁵ The Zoological Dinning Club, Minutes & Accounts Book Vol. 1 – 1866-1875, 'Thursday, Jan. 10th 1867, Second Meeting, St James Hall', ZSLA GB 0814 EBA/EBAA. Established members were permitted to invite ten guests per year. Corresponding and foreign members were only permitted to attended after receiving an invitation from an established member, whilst non-fellows were strictly prohibited from joining the club. By 1893 the club had nearly doubled in size, but it was still highly selective.

material, air opportunities, and discuss prospective vacancies.⁴⁶ Likewise, as more learned societies and other venues of scientific research emerged, such as universities and natural history museums, correspondences between ZSL fellows and like-minded individuals created new socio-cultural connections, complementing a deployment of power through shared interests. John Edward Gray for example, served on various councils and committees at the ZSL, but was also the Keeper of Zoology at the British Museum between 1840 and 1874, and a founding member of the Royal Entomological Society.⁴⁷ Connections across geographical boundaries could help forge social networks, disseminating knowledge and 'soft information' through books, ideas, gossip, and people.⁴⁸

Business and pleasure often intermixed, with many ZSL fellows knowing each another as colleagues, friends, and associates outside the realm of the Society.⁴⁹ Stanley Flower recalled visiting the Zoological Gardens with his father, William Flower, the director of the Natural History Museum and President of the ZSL, noting:

We generally went on a Sunday afternoon, often walking both there and back, and sometimes going on to tea with some of his friends near, especially the Henry Pollocks, or to the Huxley's, where there was generally a pleasant gathering of friends concerned either in science or art.⁵⁰

The lines between work and leisure often intersected, sharing a common interest in zoology. This encouraged ZSL members to intermingle with each other in private settings, voicing opinions and discussions outside the 'institution space' of scientific discussion. Even beyond the sites formally associated with the ZSL, a whole group of naturalists, editors, and illustrators were informally connected with the Society, corresponding with fellows in official and non-official capacities,

⁴⁶ The Zoological Dinning Club, Minutes & Accounts Book Vol. 2 – 1876-1893, 'Accounts for 1888-1889', ZSLA GB 0814 EBA/EBAA.

⁴⁷ A. E. Gunther, A Century of Zoology at the British Museum Through the Lives of Two Keepers, 1815–1914 (Folkestone: Dawson, 1975), pp. 17–209, 476–95.

⁴⁸ T. Pietsch, *Empire of Scholars: Universities, Networks and the British Academic World, 1850-1939* (Manchester: MUP, 2013), pp. 112-113; B. M. Bennet, 'The Consolidation and

Reconfiguration of 'British' Networks of Science, 1800-1970', in Science and Empire:

Knowledge and Networks of Science in the British Empire, 1800-1970, eds. J. M. Hodge, and B. M. Bennet (New York: Palgrave MacMillan, 2011), pp. 30-44.

⁴⁹ B. Clark to P. L. Sclater, 27 September 1870, GB 0814 BADC, ZSLA, Benjamin Clark Papers. Also see, Wyndham Spencer Portal to P. L. Sclater, 6 March 1869, GB 0814 BADP, ZSLA, Wyndham Spencer Portal Papers.

⁵⁰ C. Cornish, Sir William Henry Flower: A Personal Memoir, p. 78.

implicitly supporting the sites and practices of natural history at the ZSL. Such reinforcers, as Geoffrey Belknap has called them, helped produce and reproduce natural history as a shared and often highly visible practice, moving across printed and geographical boundaries.⁵¹

To heed David Knight's warning, however, historians 'must be careful not to draw the boundary of "science" so firmly' and view the scientific meetings as the only site of scientific engagement at the ZSL.52 To insist that the conduct of science was solely practised in relation to the scientific meetings would be a narrow-minded perspective, focusing too heavily on a small circle of privileged white men.⁵³ The Society's zoological gardens, for instance, has become an interesting focal point for historians of science, exploring the prospect of the gardens being a key site of scientific interaction and observation.⁵⁴ Takashi Ito has already shown that the zoological gardens and science interacted with each other in various ways, acting as a bridge for the non-specialist public and a platform for rising zoologists.⁵⁵ Oliver Hochadel has also argued that the relationship between zoos and the rising science of biology was a multifaceted site of interaction, with living animals acting as objects of examination for those studying animal behaviour.⁵⁶ Animals in zoological gardens' were useful points of reference for the debate on Darwinism, and for many people, provided first-hand experience of exotic animals. After 1874, the ZSL council even prepared a series of popular lectures in the gardens' picture gallery, which was fitted up as a lecturehall until 1899. The talks were interesting and the prepared by 'men of eminence'.

⁵¹ G. Belknap, 'Illustrating Natural History: Images, Periodicals, and the Making of Nineteenth-Century Scientific Communities', *BJHS*, Vol. 51, No. 3 (2018), pp. 395-422.

⁵² D. Knight, *Sources for the History of Science 1660-1914: The Sources of History* (London: Hodder & Stoughton, 1975), p. 101.

⁵³ D. E. Allen, *The Naturalist in Britain: A Social History* (Princeton: Princeton University Press, 1994), p. 85.

⁵⁴ See, O. Hochadel, 'Science at the Zoo', *Centaurus Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 561-590.

⁵⁵ T. Ito, *London Zoo and the Victorians*, p. 138. Adrian Desmond originally challenged the idea of the gardens being a site of scientific production, claiming in the first decade of the ZSL's development, many of the members regarded the gardens as a 'raree show'. In contrast to the gardens, Desmond argued, the Society's museum was deemed more important by contemporaries, suggesting animals in the gardens only reached scientific maturity once they were dissected and had had their classifications verified, thereby justifying their place in the museum. See, A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part I', pp. 153-185; A. Desmond, 'The Making of Institutional Zoology in London 1822-1836: Part II', *HoS,* Vol. 23, No. 2 (1985), pp. 223-250.

⁵⁶ O. Hochadel, 'Watching Exotic Animals Next Door: "Scientific" Observations at the Zoo (ca. 1870–1910)', *Science in Context*, Vol. 24, No. 2 (2011), pp. 183-214.

but subjects were often considered more appropriate for university students than general audiences.⁵⁷

Guidebooks were another source of scientific engagement, conveying zoological information to non-professional readers that turned individual animals into representatives of their species with lives framed in terms of human experience.⁵⁸ Likewise, popular magazines, scientific periodicals, and children's books circulated information peripheral to the zoo, allowing readers to venture though the 'highways and byways' of the menagerie without even visiting the gardens.⁵⁹ Animals served as models for illustrations in newspapers, whilst those considered 'national pets' or 'children's favourites' inspired readers to learn more about zoology and potentially visit the gardens in person.⁶⁰ These modes of scientific meetings, but were still important forms of scientific paraphernalia. Widely accessible, public materials generated their own kinds of engagements, highlighting how the politics of inclusive and exclusive science operated on numerous levels in and around the Zoological Society of London.⁶¹

Although the meetings and *Proceedings* were important sources of knowledge production, other modes of generation interlinked spaces, people, and epistemological outlooks. Thus, despite the widening gap between professional and public science by the end of the nineteenth century, the context of science at the ZSL was multifaceted and perceived across a variety of levels. This intersectionality is contextually significant, as the different modes of scientific discovery', which will be discussed shortly. For now, it is important to turn to the nature of zoological study in East Africa and contextualise how colonial

⁵⁷ *The Echo*, 15 April 1874, quoted in H. Scherren, *The Zoological Society of London*, p. 169. Also see, Davis Lecture Leaflets 1874-1887, ZSLA, GB 0814 GABL.

⁵⁸ A. Flack & S. J. Maddeaux, "Ask of the Beasts and They shall Teach Thee": Animal Representations in Bristol Zoo Guidebooks', *Society & Animals*, Vol. 26, Iss. 1 (2018), pp. 54-72.

⁵⁹ F. E. Beddard, *Natural History in Zoological Gardens* (London: A. Constable, 1905), p. 1; C. I. Pocock, *Highways and Byways of the Zoological Gardens* (London: Adam & Charles Black, 1913).

⁶⁰ Diaries of Henrietta Thornhill, 17 July 1866, LA, IV/81/3.

⁶¹ T. Ito, London Zoo and the Victorians, p. 3.

practitioners engaged with the ZSL in the last few decades of the nineteenth century.

Imperial expansion and zoology in British east Africa

Western scientific practices in Africa have long been considered intrinsic to the process of imperialism and settler colonialism during the nineteenth century, and the study of natural history was no exception.⁶² Although imperial encroachment was irregular and regionally specific, usually superseding pre-existing political authority and subordinating so-called 'stateless societies', the study of natural history was never far from colonial interference.⁶³ At the forefront of these zoological encounters were hunters and, later, colonial officials-turnednaturalists, whose primary contribution to the natural sciences was the study of natural history. As Angela Thompsell has argued, for explorers, hunters, and individuals invested in the pursuit of game, the study of natural history was fundamentally linked to these activities.⁶⁴ Indeed, a growing interest in zoology emerged in the last guarter of the century, which was evident in the number of hunting books and periodicals concerning African wildlife.⁶⁵ In other words, 'Victorians were in love with natural history', turning big game-hunting into a central appeal of the African interior.⁶⁶ Not all regions were deemed sufficiently 'wild', however, with certain regions iconicised as a sportsman's paradise and a natural history haven. Furthermore, as colonial powers pushed further into the African interior, territories once described as suitable natural history havens were viewed as inadequate.⁶⁷ In the last guarter of the nineteenth century, for example,

⁶² W. Beinart, K. Brown & D. Gilfoyle, 'Experts and Expertise in Colonial Africa Reconsidered: Science and the Interpretation of Knowledge, *African Affairs*, Vol. 18, No. 432, (2009), pp. 413-433 (p. 418).

⁶³ N. J. Jacobs, 'The Intimate Politics of Ornithology in Colonial Africa', *Society for Comparative Study of Society and History*, Vol. 48, No. 3 (2006), pp. 564-603; D. A. Low, *Lion Rampant: Essays in the Study of British Imperialism* (London: F. Cass, 1973), p. 9.

⁶⁴ A. Thompsell, *Hunting Africa: British Sport, African Knowledge and the Nature of Empire* (London: Palgrave MacMillan, 2015), pp. 18-19.

⁶⁵ Not to mention the various autopsies and investigations carried out by hunters in the field. See, A. Thompsell, *Hunting Africa*, p. 18; F. W. Isaac to British Museum, 6 December 1901, NHM, DF 232/8/194; C. Phillipps-Wolley, *Big Game Shooting* (London: Longmans, 1894), pp. 154-203.

⁶⁶ B. T. Gates, 'Introduction: Why Victorian Natural History?', *Victorian Literature and Culture*, Vol. 35 (2007), pp. 539-549 (p. 539); J. Mackenzie, *The Nature of Empire: Hunting Conservation and British Imperialism* (Manchester: MUP, 1988).

⁶⁷ A. Thompsell, *Hunting Africa*, pp. 24-25.

in sharp contrast to Southern Africa, British East Africa became 'the *beau ideal* of the sporting world' despite its relatively late appearance in the imperial project.⁶⁸ It is most likely the reason why East Africa, like the Transvaal twenty-to-thirty years before, was described as a place where 'the cream of British society might rub elbows with a rougher element', being less familiar and seemingly more rugged than other colonial territories.⁶⁹

This contrast, combined with the Anglo-Egyptian withdrawal from the Sudan and established East African transport networks becoming denser and more pervasive, open-endedly turned the tide of European imperialism towards East Africa by the 1870s.⁷⁰ At first these colonial ambitions were predominantly channelled through missionary societies and economically feeble chartered companies, rooting themselves within well-established infrastructures to claim spheres of influence over modern-day Kenya, Tanzania, Malawi, and Uganda.⁷¹ The Imperial British East Africa Company was one of the first to extend British authority into the interior, using an ad hoc recruitment of 'local soldiers, primarily Sudanese, Swahili's from the coast, and Egyptians from the khedives defeated army'.⁷² This initial period of interaction, roughly between 1884 and 1887, emerged out of supposed 'humanitarian and commercial interests' in the region, particularly through the anti-slave-trade agenda and the Indian traders who resided in Zanzibar.73 It resulted in the division of East Africa between a predominantly southern German and northern British sphere of influence, but by 1888, the British sphere had expanded westward to comprise Uganda as a sort of 'consolation prize in lieu of Equatoria', a region rumoured to be rich in ivory

 ⁶⁸ M. Wright, 'East Africa 1870-1905', in *The Cambridge History of Africa: Volume 6 – From 1870 to 1905*, eds. R. Oliver & G. N. Sanderson (Cambridge: CUP, 1985), pp. 539-591 (p. 561).
 ⁶⁹ A. Thompsell *Hunting Africa*, pp. 24-25.

⁷⁰ Various colonial powers exercised an uneven control over East Africa between 1870 and 1905. It became one of the least successful regions of 'minimum involvement' for British foreign policy. For more see, M. Wright, 'East Africa 1870-1905', p. 539; B. Porter, *The Lion's Share: A Short History of British Imperialism 1850-1970* (New York: Longmans, 1975), p. 110.

⁷¹ T. Griffiths, 'Bishop Alfred Tucker and the Establishment of a British Protectorate in Uganda 1890-94', *Journal of Religion in Africa*, Vol. XXXI (2001), pp. 92-114; D. A. Low, 'Warbands and Ground-Level Imperialism in Uganda, 1870-1900', *Australian Historical Studies*, Vol. 16, No. 65 (1975), pp. 584-597; A. J. MacDonald, *Trade Politics and Christianity in Africa and the East* (London: Greens, 1916).

⁷² T. R. Metcalfe, *Imperial Connections: India in the Indian Ocean Area, 1860-1920* (Berkeley: California University Press, 2007), p. 81.

⁷³ John Kirk to 2nd Earl of Granville, 3 March 1885, FO 403/93; M. Unangst, 'Manufacturing Crisis: Anti-Slavery 'Humanitarianism' and Imperialism in East Africa, 1888-1890', *JICH*, Vol. 48, Iss. 5 (2020), pp. 805-825.

and raw materials.⁷⁴ Colonial engagement in the subsequent years was more intrusive and sustained through a series of colonial wars, which as D. A. Low has argued, brought 'the area bound by Lakes Kivu, Edward, George, Albert, Kyoga and Victoria...into the southern core of the new British colonial polity of 'Uganda''.⁷⁵ Thus, at the turn of the century, the European spheres of influence had slowly been transformed into various colonies and protectorates.

Accounts of East African zoology first emerged at the ZSL within this context, receiving reports from hunters and colonial officials who pursued game in the region. For the scientific community at the ZSL, many of these accounts were relayed at the scientific meetings, which, consistent with other areas previously surveyed, reflected the regional spread of European encroachment. At first, early transmissions were presented by explorers, like John Speke during his second search for the Nile in the 1860s, but over the next two decades, the number of East African animal reports steadily rose. Collections were relatively small and varied from lizards in Mozambigue to birds in Tanzania, but antelopes and butterflies soon became the most popular topics of discussion. By the 1880s, papers began to discuss specimens obtained in the British East Africa Company's territory, but were mainly concerned with animals found along the coast, particularly the coastal regions of modern-day Kenya. It was only in the mid-1890s that expeditions started to acquire animals in the interior, obtaining small inland collections, now within the newly formed British East African Protectorate.⁷⁶ It took much longer for papers to describe animals procured in Uganda, and only a handful of ZSL papers mentioned animals obtained there before 1895.

The quality of these collections varied substantially, not just in size and condition, but also in terms of the collectors themselves. Benefactors, like Richard Crawshay, were commended for supplying specimens in good condition, carefully labelling a whole collection of butterflies 'with exact locality, date of

⁷⁴ J. F. Gjersø, 'The Scramble for East Africa: British Motives Reconsidered, 1884–95', *JICH*, Vol. 43, No. 5 (2015), pp. 831-860 (pp. 838-839).

⁷⁵ D. A. Low. Fabrication of Empire: The British and the Uganda Kingdoms, 1890–1902 (Cambridge: CUP, 2009), pp. 1-2.

⁷⁶ S. G. Ruchman, 'Colonial Construction: Labor Practices and Precedents Along the Uganda Railway, 1893- 1903', *The International Journal of African Historical Studies*, Vol. 50, No. 2 (2017), pp. 251-273.

capture, and in some cases with the altitude at which they were obtained'.⁷⁷ Others, like Halford Mackinder, were more succinct, forwarding simple details in the hope that specimens would be 'worked out' by more qualified individuals in Britain.⁷⁸ Nearly all East African specimens were handed to 'professional' zoologists before they were formally discussed at the Society's scientific meetings. These specimens were either sent straight to the ZSL secretary or forwarded to the Natural History Museum, where departmental zoologists, such as mammal expert Oldfield Thomas or entomologist Arthur Butler, would prepare papers for the ZSL meetings. Nevertheless, it was often the case that during the process of capturing these animals, those relaying the specimens to Britain were not the ones physically procuring animals. Local trackers and African hunters at the 'caravan vernacular level' were usually the ones sourcing specimens and leading expeditions to appropriate sites, being deeply involved in the conduct and transmission of zoological knowledge.⁷⁹

The practice and sites of zoological investigation in East Africa were just as multifaceted as the modes of knowledge production at the ZSL, generating knowledge across different localities that heterogeneously linked both human and non-human actants along transitions of scientific practice and networks of knowledge. This conceptual approach, namely, localities of knowledge production, denoted dialectical encounters between traditional knowledge systems and western science, and between the local and the global, which as Savithri Nair puts it, 'releases one from the serious limitations inherent in a teleological account of science'.⁸⁰ It is this kind of perspective that is missing from the sequence of events concerning the discovery of the okapi, which has focused too heavily on a singular narrative of Harry Johnston as the great man of science.

 ⁷⁷ He also made note of 'the habits ... as well as the colouring of the eggs obtained from the bodies of gravid female examples'. See, A. G. Butler, 'On a Small Collection of Butterflies made by Mr. Richard Crawshay during 1898 in British East Africa', *PZS* (1899), pp. 417-427 (p. 417).
 ⁷⁸ O. Thomas, 'List of Mammals obtained by Mr. H. J. Mackinder during his recent Expedition to Mount Kenya, British East Africa', *PZS* (1900), pp. 173-180 (p. 173).

 ⁷⁹ A. Thompsell *Hunting Africa*, pp. 83-89. To quote Timothy Parsons, 'without African participation, there would have been no British empire in Africa, Africans built the empire, did the work of the empire, sometimes ruled in the empire, and often redirected the goals and efforts of the empire to their own advantage'. See, T. H. Parsons, 'African Participation in the British Empire', in *Black Experience and the Empire: Oxford History of the British Empire Companion Series*, eds. P. D. Morgan & S. Hawkins (Oxford: OUP, 2006), pp. 257-285 (p. 257).
 ⁸⁰ S. P. Nair, 'Native Collecting and Natural Knowledge (1798-1832): Raja Serfoji II of Tanjore as a 'Centre of Calculation', *The Royal Asiatic Society*, Ser. 3, Vol. 15, Iss. 3 (2005), pp. 279-302 (p. 281).

Whilst Johnston played a decisive role, he was not the only actant involved, nor was the animal decisively classified at the initial point of 'discovery'. Thus, the final section will now turn to the case of the okapi, to re-examine how this western encounter came about, discussing the nature of the classification debate that followed, and how western scientific information was formulated. Wary of perpetuating a 'great men of science' approach, the last section does not intend to propagate this argument. However, it will begin with a brief biographical account of Harry Johnston's activities before he encountered the okapi, as he still played a leading role in the initial phase.

The scramble for the okapi

Described as a many-sided man, Harry Johnston (1858–1927) has long been considered an active player in the scramble for Central East Africa during the last two decades of the nineteenth century. Typically portrayed as an explorer and colonial administrator, Johnston was a renowned traveller and well-connected individual who took part in numerous expeditions across Africa. According to his colleagues Alfred Sharpe and Frank Cana, Johnston exhibited an early interest in leadership, which quickly won him approval as the scramble for Africa unfolded.⁸¹ His aptitude for languages led Johnston to accompany a number of expeditions, experiences that later strengthened his resolve to extend the British Empire in Africa. Publishing an 'attractively written and illustrated account' of his travels, Johnston quickly built a reputation as a competent Africanist, and was described by his contemporaries as 'a man specially gualified to deal with Africans'.⁸² Using his connections, he was able to embark on a series of career bound expeditions, particularly to Mount Kilimanjaro, setting on course the foundation of British East Africa that later led to his appointment as Vice-Consul for the Cameroons and the Niger Delta. Acquainted with men like Cecil Rhodes, Johnston was soon enlisted in the grandiose scheme for a Cape-to-Cairo 'All Red' route, becoming an advocate in early 1888. This followed a string of colonial

⁸¹ F. R. Cana & A. Sharpe, 'Obituary: Sir Harry H. Johnston, G. C. M. G., K. C. B.', *TGJ*, Vol. 70, No. 4 (Oct. 1927), pp. 414-416 (p. 414).

⁸² R. Oliver, 'Johnston, Sir Henry Hamilton [Harry], (1858-1927)', Oxford Dictionary of National Biography, oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-34211; F. R. Cana & A. Sharpe, 'Obituary: Sir Harry H. Johnston', p. 415.

postings, including the consulship of Portuguese East Africa, commissioner of the newly proclaimed protectorate of Nyasaland, and four years later, the administrator of north-eastern Rhodesia.

In his spare time, Johnston was a keen painter, ethnographer, and natural history collector. He spent a lot of time perfecting these pastimes, especially during his youth, attending the Lambeth School of Art and visiting London Zoo to study the mammals and birds. Johnston's interests continued into adulthood, dedicating a lot of his time to these activities whilst in Africa. For instance, during a geographical and sporting expedition to Angola in 1882-3, Johnston was officially appointed as the artist and Portuguese interpreter for the trip but spent most of his time unofficially collecting animals as the expedition's naturalist. During the expedition Johnston also befriended the explorer Henry Stanley, whom he encountered on his way to the Congo estuary working for Leopold II, the Belgian monarch. With Stanley's assistance, Johnston was able to ascend the river as far as Bolobo, and spent some time collecting plants, birds, and insects in the region.⁸³ After their encounter, Johnston officially registered as a fellow at the ZSL, subsequently building a reputation through his donations to the Society and zoological papers.⁸⁴

In due course, Johnston supplied the ZSL with approximately 1,148 species and 2,034 specimens between 1884 and 1900, amounting to 37 separate reports. He was the most prolific contributor to the ZSL's scientific meetings regarding East African zoology.⁸⁵ Like other colonial naturalists, the specimens Johnston sent were discussed and catalogued by zoologists in Britain, mainly Oldfield Thomas, George Boulenger, and Arthur Butler at the Natural History Museum which, in line with his career, followed the trajectory of his colonial appointments. Encountering animals where he resided, by 1891 Johnston was 'well known to science for his explorations both in the Western and in the Eastern Tropics of the African Continent', with most of the scientific papers commending Johnston

⁸⁵ Johnston also sent specimens to other institutions, including the British Museum and plants to the Royal Botanical Gardens, Kew. See, W. T. T. Dyer to P. L. Sclater, 2 July 1887, 17 November 1892, ZSLA, GB 0814 BADD, Sir William Turner Thiselton Dyer Papers. E. Dampster & Co to P. L. Sclater, 15 December 1886, ZSLA, GB 0814 BADE, Elder Dampster & Co Papers.

⁸³ R. Oliver, 'Johnston, Sir Henry Hamilton [Harry], (1858-1927)', Oxford Dictionary of National Biography, oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-34211.

⁸⁴ P. L. Sclater, A Record of Progress, p. 79.

personally.⁸⁶ This won him the Society's Silver Medal in 1894. However, like many other colonial naturalists, Johnston was never solely responsible for procuring the specimens habitually regarded as 'his' at the scientific meetings. Johnston relied heavily on his assistants and other naturalists, to whom it was noted in 1896, 'as usually, the majority of Sir Harry Johnston's specimens have been obtained by that indefatigable naturalist, Mr Alexander Whyte'.⁸⁷ Johnston also travelled without European collectors, relying on local trackers and hunters to capture animals. Although he would often blame what he considered 'native ineptitude' for the lack of larger collections, his dependence on 'such natives of Zanzibar', porters, and on one occasion his Indian servant Virapan, their assistance contributed greatly to the production of knowledge presented at the ZSL.⁸⁸

In 1897, Johnston left Nyasaland to recover from blackwater fever, but was soon appointed to his last post in the service of empire, accepting the offer as Special Commissioner to Uganda in 1899. Tasked with reorganising the protectorate, Johnston was ordered to establish a civilian administration after seven years of disastrous military rule, spending the next eight months on the march, as much in the cause of science as of good governance. Significantly, it was during this period that he found time to explore parts of the Ruwenzori range and the Semliki Forest on the borders between Uganda and the Congo Free State, after Henry Stanley advised him, 'if you ever get a chance...mind you take a dip into that wonderful Ituri forest...I'm sure it contains some strange beasts not yet made known to science. You may find that the donkey that the pygmies told me they caught in pitfalls'.⁸⁹ It was on the back of this remark that Johnston wrote to the ZSL secretary, Philip Sclater, in 1900, stating he had 'something like proof of the existence of a very remarkable new horse'.⁹⁰

⁹⁰ H. H. Johnston, 'Letter from, Containing an Account of a Supposed New Species of Zebra inhabiting the Congo Forest', *PZS* (1900), pp. 774-775 (p. 774).

⁸⁶ P. L. Sclater, 'Discussion on the Fauna of British Central Africa', *PZS*, Part III (1891), pp. 301-305 (p. 302).

⁸⁷ O. Thomas, 'On the Mammals of Nyasaland: Fourth Notice', *PZS* (1896), pp. 788-798.

 ⁸⁸ H. H. Johnston, 'General Observations on the Fauna of Kilima-njaro', *PZS* (1885), pp. 214-218; O. Thomas, 'Report on the Mammals obtained and Observed by Mr. H. H. Johnston on Mount Kilima-njaro', *PZS* (1885), pp. 219-222 (p. 222); O. Thomas, 'List of Mammals from the Cameroons Mountains collected by Mr. H. H. Johnston', *PZS* (1887), p. 121.
 ⁸⁹ W. Blunt, *Ark in the Park*, p. 241.

'Discovering' the okapi – August 1900 to June 1901

In the letter, dated 21st August 1900, Johnston explained that he had recently been reading Stanley's In Darkest Africa, and had noticed in one of the appendices it mentioned a donkey, or an ass known to the Mbuti people as 'Atti', which was said to be found in the Ituri rainforest.⁹¹ Knowing that equines (horses, donkeys, and zebras) generally avoid dense woodlands, the statement seemed rather out of place. It just so happened that a few months later, Johnston found himself in the Ituri region with Belgian officials, stopping a so-called filibustering German from abducting local pygmy people for the upcoming Paris Exposition. Having prevented the extraction, Johnston, in a rather self-congratulatory tone, 'restor[ed] them to their homes', where he was entertained for several months. It was during this short stay, according to his letter, that he questioned 'the pigmy [sic] band' about the illusive animal, explicitly telling him 'they called the animal 'O', Api", describing it as dun-coloured or dark grey all over the upper parts of the body, with stripes on the belly and legs.⁹² As soon as he reached the Belgian outpost at Beni, these accounts were confirmed, where the host, Lieutenant Meura and his Swedish colleague Karl Eriksson, 'at once acknowledged the existence of this animal', stating it frequented the deepest parts of the forest.93 Both men had eaten its meat, but had never seen it alive, believing it to be more like an antelope than a horse, and were sure that it would have more than one toe on each hoof. An expedition was immediately organised, with guides and porters engaged but to no avail.⁹⁴ By chance, however, a group of Bambuba people, who lived near to the outpost and were employed as soldiers, had some fragments of the animal's skin that had been cut into bandoliers, and as a result, two fragments were presented to Johnston. The straps of skin prompted him to

⁹¹ H. H. Johnston, 'Letter from, Containing an Account of a Supposed New Species of Zebra inhabiting the Congo Forest', p. 774; H. M. Stanley, *In Darkest Africa: Or the Quest Rescue and Retreat of Emin Governor of Equatoria - In Two Volumes*, Vol. II (London: Sampson Low, 1890), p. 442.

⁹² According to Johnston the 'stood for a gasping sound like an aspirate or Arabic K. See, H. H. Johnston, 'Letter from, Containing an Account of a Supposed New Species of Zebra inhabiting the Congo Forest', p. 774.

⁹³ Ibid., pp. 774-775

⁹⁴ W. Blunt, Ark in the Park, pp. 241-242.

write to Sclater at the ZSL, promising to 'send them home...by first opportunity', finishing his letter:

Whatever the animal may be to which these pieces belong, it is not anyone of the known zebras or wild asses; the pieces of skin unfortunately exhibit chiefly the stripes of the belly and legs. These are very irregular with a chestnut border, and they look as though from above they emerge from a uniform dung or dark grey. Unfortunately we did not succeed in seeing a specimen of this animal in the forest during our short stay, but one of the Congo Free State officials [Eriksson] has promised to send me a complete skin and skull.⁹⁵

Like so many accounts of zoological encounter, in Johnston's opinion, the investigation could only be substantiated by another Europeans. Even whilst he was in the Congo, it was only after Meura and Eriksson had verified the head as 'very long 'et très effilée...i.e. drawn out', did Johnston begin to accept this animal existed.

The fragments of skin arrived at the ZSL a month later and were presented to the members of the scientific meeting held 18th December 1900 [figure 23]. The meeting was relatively uneventful, and the fragments caused no immediate stir. However, over the next two months, Sclater and other fellows spent a considerable amount of time examining the bandoliers to further understand the samples, which was conveyed to the scientific meeting on 5th February 1901. Referring to the bandoliers as preliminary evidence, Sclater remarked that 'whether the native account of the animal from which they were taken is precisely correct or not, the specimens themselves cannot be referred to any of the known species of zebra and must belong to an undescribed animal'.⁹⁶ Hence, he proposed the designation *Equus Johnstoni* [?] as the scientific name, provisionally placing the animal within the horse/zebra genus *Equus*.⁹⁷

Using microscope slides prepared by Walter Ridewood, hair follicles were extracted from the skin fragments and compared with different zebra species, substantiating Sclater's assessment that the animal belonged to the zebra

⁹⁵ H. H. Johnston, 'Letter from, Containing an Account of a Supposed New Species of Zebra inhabiting the Congo Forest', p. 775.

⁹⁶ P. L. Sclater, 'On an Apparently New Species of Zebra from the Semliki Forest', *PZS*, Vol. I (January-April) (1901), pp. 50-52 (p. 50).

⁹⁷ ZSLA, SMM, 5 February 1901.

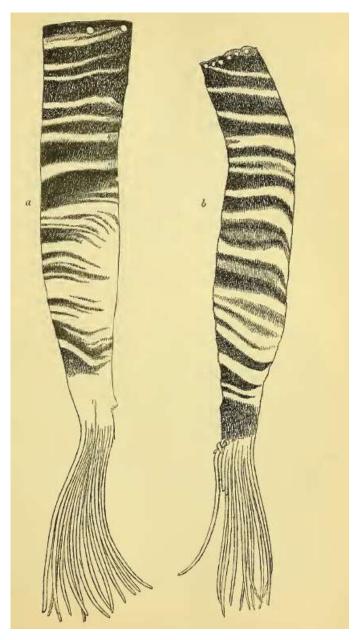


Figure 23. P. L. Sclater, 'On an Apparently New Species of Zebra From the Semliki Forest', *Proceedings of the Zoological Society of London, Vol. I: January – April* (London: Longmans, 1901), pp. 50-52 (p. 51).

subgenus and not the ass.⁹⁸ According to Ridewood, there were no distinguishable features that differed from zebras, ostensibly confirming the new species as an equine, and possibly even an ally of the recently extinct quagga.⁹⁹ Ridewood, however, did note that because the hairs were not longitudinal, it was notably different from all known zebra types. James Ewart, an equine specialist, concurred with this assessment, arguing it was highly improbable that an

⁹⁸ ZSLA, SMM, 19 February 1901.

⁹⁹ F. E. Beddard, 'The Okapi: The New Quadruped from Central Africa', *Pall Mall Magazine*, Vol. 24, Iss. 100 (1901-1908), pp. 569-570 (p. 569).

antelope with zebra like markings would live in the Congo region, and that it was far better to compare the fragments with zebras, horses and other ruminants.¹⁰⁰ His comments made it back to Ridewood, who prepared another series of slides in May 1901, this time including hair samples from antelopes, giraffes, zebras, and the 'so-called *Equus Johnstoni*'.¹⁰¹ Ridewood demonstrated that the hairs of *E. Johnstoni* were very similar to zebras and giraffes, but not those of an antelope.¹⁰² Nevertheless, the assessment was soon muddled by Johnston, who had acquired yet more samples in Uganda.

Since his last letter, Johnston had returned to Uganda to continue his work as special commissioner to the Protectorate. During the intervening months, he had kept in contact with the Swedish officer, Karl Eriksson, who had since become the commandant of Fort Beni.¹⁰³ Under Eriksson's command, a 'troop of native soldiers of the Congo Free State' had successfully secured a skin and two skulls of the animal in the vicinity of the fort, which at Eriksson's discretion, were delivered to Johnston in the hope that they would be forwarded to London. The skin, still attached to the lower jaw of the larger skull, was despatched from the Congo in February 1901 and arrived in Entebbe in March, reaching Johnston at the end of the month at the Eldama Ravine, in the eastern part of the Protectorate.¹⁰⁴ The smaller skull arrived a little while afterwards. A note was attached to the skin, describing the hooves as similar to those of antelopes; the point being, Eriksson's 'surprise at discovering the creature not to be a soliped but cloven-hoofed' mammal.¹⁰⁵ Yet when the parcel was unwrapped the hooves had nearly disappeared, and it was assumed they had been eaten by rats. Mr Doggett, Johnston's taxidermist, however, suggested that they had simply fallen

¹⁰⁰ J. C. Ewart to F. Beddard, 11 February 1901, ZSLA, GB 0814 BADE, James Cossar Ewart Papers. An extract of their letters was read at the following scientific meeting, but no details are given about its contents. See, W. G. Ridewood, 'Exhibition of some Microscopic Slides of the Hair of Johnston's Zebra', *PZS*, Vol. I (January-April) (1901), pp. 87-88; ZSLA, SMM, 19 February 1901.

¹⁰¹ ZSLA, SMM, 7 May 1901.

¹⁰² ZSLA, SMM, 7 May 1901.

¹⁰³ Lieutenant Meura had died of black-water fever shortly after Johnston departed. See, E. R. Lankester, 'On *Okapia*, a New Genus of *Giraffidæ*, from Central Africa', *TZS, Vol. XVI – Part 6* (1903), pp. 179-307 (p. 280).

¹⁰⁴ They assumed the bigger skull belonged to the skin. The mandible was still attached to the skin when it first reached Johnston in Uganda. The skull had been removed from the skin by the time it arrived in England.

¹⁰⁵ E. R. Lankester, 'On *Okapia*, a New Genus of *Giraffidæ*, from Central Africa', p. 280.

off, which was quite common for dried hoofed specimens.¹⁰⁶ Regardless of the loss, Johnston informed Sclater that the specimens would soon be sent to England, forwarding a water-coloured painting of what he thought the animal looked like. He used the hide in its relatively fresh state to account for the vivid colouration, stating:

I wish to impress on you this, that the colours in the drawing are absolutely not exaggerated in any way in brightness...I think you will agree with me that the general coloration is of the most extraordinary kind, and that if the skin were not there as evidence, it would be thought to be an invention of my imagination.¹⁰⁷

Some of the skin on the inner side of the legs and belly, as well as a portion of the tail had been removed in the skinning process, but these losses were insignificant. The only substantial absence was the hooves, which without further evidence, could help classify the animal as either an even-toed (Artiodactyla) or odd-toed (Perissodactyla) ungulate - thereby confirming it to be an equine or not.¹⁰⁸ Nevertheless, using the new information supplied by Eriksson and local attendants, the animal was depicted with cloven hooves, placing it within the Artiodactyla order, contrary to Sclater and Ridewood's original appraisal. Noting his reliance on local accounts, having asked them about the shape and appearance of the animal when alive, Johnston's admission signified his dependence on local accounts and their descriptions. It not only insinuated a transfer of knowledge, but also the communicative nature and value of different 'ways of knowing' in creating what he described as 'a fairly faithful representation of this wonderful new creature'.¹⁰⁹ Needless to say, the information reopened the prospect of the animal not being a member of the equine family as previously ascribed.

¹⁰⁶ Ibid., p. 280.

¹⁰⁷ P. L. Sclater, 'On a New African Mammal', *PZS*, Vol. II (May-December) (1901), pp. 3-6 (p. 4).

¹⁰⁸ Horses and allies (Equidae), rhinoceroses (Rhinocerotidae) and tapirs (Tapiridae) are families of the Perissodactyla order. Pigs and allies (Suidae), hippopotamuses (Hippopotamidae), camels (Tylopoda), and other ruminants such as giraffes (Giraffidae), cattle (Bovidae), deer (Cervidae), musk deer (Moschidae), tragulina (Tragulidae) are families of the Artiodactyla order.

¹⁰⁹ P. L. Sclater, 'On a New African Mammal', p. 3. For more on indigenous knowledge systems see, L. Whitt, *Science, Colonialism, and Indigenous Peoples: The Cultural Politics of Law and Knowledge* (Cambridge: CUP, 2009), pp. 29-56; R. Barnhardt & A. O. Kawagley, 'Indigenous Knowledge Systems and Alaska Native Ways of Knowing', *Anthropology & Education Quarterly*, Vol. 36, No. 1 (2005), pp. 8-23.

At the ZSL meeting, the water-coloured painting drastically changed people's perspectives, portraying an animal that looked like nothing any of the attendants had seen before [figure 24]. The colouration of the body and upper part of the head were a dark chestnut red, whilst its legs were a mix of creamy-white and blackish brown, and its hooves a bluish-black. There could be no doubt, Sclater announced, that 'Sir Harry Johnston had made a most important discovery', as the animal portrayed was 'of course, not a Zebra, nor even a member of the family *Equidae*'.¹¹⁰ It was more probable, he went on, that Johnston was not far wrong when, in one of his other letters, he had called it a *Helladotherium* – an extinct giraffid – and that it would be found to be allied to that or to one of the other extinct forms of mammals allied to the giraffe.¹¹¹ If



Figure 24. P. L. Sclater, 'On a New African Mammal', *Proceedings of the Zoological Society of London, Vol II: May – December* (London: Longmans, 1901), p. 2.

¹¹⁰ P. L. Sclater, 'On a New African Mammal', p. 4.¹¹¹ Ibid., p. 4.

proven, this would be a monumental revelation, as up until this point giraffes were the only known living representative of the family Giraffidæ.¹¹² Furthermore, in terms of establishing the animal's classification, it would put it on a completely different phyletic trajectory to the equine designation, but this would have to wait until the skin and skull arrived in London. For now, the animal remained, at least to the fellows of the ZSL, an ill-defined creature, made up of local knowledge, speculative assumptions, two fragments of skin, and a painting. More material was clearly needed to confidently place the animal within one of the established taxonomic families, or to potentially create a new one altogether.

Classifying the okapi – June 1901 to December 1901

It would take another month for the skin and two skulls to arrive in London, reaching the Natural History Museum on 17th June. Here they were given to Edwin Ray Lankester, the director of the museum, who gave a brief talk on their characteristics at the ZSL meeting the following day. Unlike when the bandoliers were first exhibited, the room was packed with attendees, including fifty-one of the leading scientific figures of the day and Harry Johnston himself, who had just returned from Uganda.¹¹³ After the general notices, Lankester's preliminary report was the first to be read, focusing on the larger skull and skin to which the former belonged. Lankester argued the specimen was probably 'of a giraffine animal, and not that of a bovine', indicating the okapi's close affinities through the cranial axes, the proportions of the orbital margins (the cavity or socket surrounding the eye and its appendages) and the dentitions (the teeth).¹¹⁴ Although Lankester deduced that the specimen was an adolescent, the relative shortness of the neck and the greater equality in the length of limbs – as shown in the skin – implied it was not generically associated with any living giraffe subspecies nor extinct

¹¹² M. J. Brisson, *Regnum Animale: In classes IX Distributum* (Lugduni Batavorum, Apud Theodorum Haak, 1762), pp. 37-38; M. T. Brünnich, *Brünnichii Zoologiae fundamenta Praelectionibus Academicis Accommodata: Grunde I Dyrelaeren* (Hadnioe et Lipsioe, 1772), p. 253; A. I. Dagg, 'Mammalian Species: *Giraffa camelopardalis*', *The American Society of Mammologists*, Vol. 5 (1971), pp. 1-8 (p. 1).

¹¹³ This was nearly double the number of members who attended the scientific meeting on 5th February 1901. Attendance at the scientific meetings since June 1900 averaged 28 people. See, ZSLA, SMM, June to June 1900-1901.

¹¹⁴ E. R. Lankester, 'Prof. E. Ray Lankester on Okapia johnstoni', *PZS*, Vol. II (1901), pp. 279-281.

hornless *Giraffa*, such as *Helladotherium* and *Libytherium*.¹¹⁵ Though similar, Lankester concluded, the absence of 'bony outgrowths of the frontal region which form the "horns" of *Giraffa*', and the essential differences in appearance, did not warrant the okapi suitable to fit within any of the established *Giraffa* genera. Therefore, he proposed a new genus, *Okapia,* characterising it as a giraffine mammal to replace Sclater's equine binomials. *Okapia johnstoni* was henceforth brought into being; beginning a process of western accumulation and dissemination of knowledge concerning the okapi.

There were some initial trivial objections to this name, partly because the letter 'K' was used instead of the latinised 'C' in Okapia, but apart from by a few ardent traditionalists, the name was widely adopted.¹¹⁶ News quickly circulated in the press, with one newspaper noting 'it is indeed a strange thing that the dawn of the 20th century should bring to light... a more remarkable looking animal [than] has ever been beheld by man'.¹¹⁷ Newspapers began to retell the discovery narrative, describing the okapi as a hornless first cousin of the giraffe, and in some cases, referring to as a living Helladotherium.¹¹⁸ The language upheld 'the sincerity of contemporaries belief in prehistoric Africa and the ease with which Darkness and Brightness Africa could be collapsed into a vision of dark, mysterious, prehistoric Africa, where all things were possible'.¹¹⁹ O. Johnstoni, it seemed, validated these claims and linked okapis and the Congo to a fantasied prehistoric Africa dating back to an age of monsters and dinosaurs; it supported the notion that there were innumerable mysteries and secrets of zoology still hidden in 'primeval' parts of Africa. These notions however were quickly brushed aside, especially by Frank Beddard, the ZSL's prosector, who considered such

¹¹⁵ E. R. Lankester, 'Prof. E. Ray Lankester on Okapia johnstoni', p. 280. Traces of genitals suggested it was male, but it later turned out both specimens and the skin were female. Female okapis do not have bony outgrowths or 'horns', whereas adult male okapis do. ¹¹⁶ E. R. Lankester to P. L. Sclater, 21 June 1901, ZSLA, E. Ray Lankester Papers.

¹¹⁷ 'A Remarkable Animal of the Congo', *Freeman's Exmouth Journal*, 20 July 1901, p. 2. Newspapers were desperate to get a photograph of the bandoliers, asking if the secretary would be willing to lend them to the press. Sclater refused to authorise this without Johnston's permission. See, B. S. Ingram to P. L. Sclater, 9 May 1901, ZSLA, GB 0814 BADI, Bruce S. Ingram Papers; The Graphic to P. L. Sclater, 11 May 1901, ZSLA, GB 0814 BADG, The Graphic Papers.

¹¹⁸ 'The Finding of the New African Mammal', *The Sphere*, 17 August 1901, p. 184; 'A Remarkable Animal of the Congo', *Freeman's Exmouth Journal*, 20 July 1901, p. 2. ¹¹⁹ A. Thompsell, *Hunting Africa*, p. 142.

opinions a matter of popular imagination garbled by newspaper paragraphists.¹²⁰ Instead, he argued that Britain had 'stepped in just at the nick of time to rescue this waning creature from total and final disappearance', blaming its relative demise on the Belgians who had supplied the local hunters with rifles.¹²¹ He confessed, slightly counter-productively, that okapi flesh was an excellent meat to eat, which although still a point of hearsay, was taken up by other newspapers whom promptly rallied around the issue.¹²² Whether this was factually correct was not entirely relevant. What mattered was views about the okapi were growing, spreading new, and, in many cases, erroneous comments in the press.

Once the skin was mounted in the Natural History Museum, it was predicted that there would be 'a rush of zoologists and scientists to see it as soon as it is known to be on view'.¹²³ Indeed, when the exhibition opened in the central hall, its appearance justified 'the stir that has been made about it in the scientific world'.¹²⁴ Most visitors were struck by its peculiar traits, judging the specimen to be exceedingly well placed – it was mounted by Rowland Ward, the renowned taxidermist – and in excellent condition.¹²⁵ However, using contemporary photographs, the mounted specimen was incorrectly positioned, physiologically speaking, leading to some misleading interpretations. One visitor for example, was convinced the okapi was 'unquestionably a connecting link between the antelope and the giraffe'.¹²⁶ Although not completely ill-informed, the opinion may have stemmed from the taxidermic posture, which as a more astute observer noted, 'the 'authorities'...have placed its head and long neck forwards like a cow's, whereas the set of the skin on the neck and the angle of the ears suggest

¹²¹ F. E. Beddard, 'The Okapi: The New Quadruped from Central Africa', p. 569.

¹²² One reporter expressed their views in a short poem, deeming okapi meat a potential source of income for settlers in Uganda: So Okapi Johnstoni, hail!/May you much multiply and flourish,/And, if their other rations fail,/The settlers in Uganda nourish./For you at present, you should know,/Strange dweller in a district sunny,/Are all, it seems, we have to show/For many millions of our money. See, 'The Newest Thing in Mammals', *Truth*, 8 August 1901, p. 350.
¹²³ 'The Okapi', *The Kilburn Times, Hampstead and North Western Press*, 9 August 1901, p. 6.
¹²⁴ *The Illustrated Sporting and Dramatic News*, 7 September 1901, p. 6. In December 1901, the okapi specimen was moved to the mammalian gallery in the same case as the giraffes and their allied extinct forms. See, 'Natural History Museum', *London Evening Standard*, 27 August 1901, p. 6.

¹²⁰ F. E. Beddard, 'The Okapi: The New Quadruped from Central Africa', *Pall Mall Magazine*, Vol. 24, Iss. 100 (1901-1908), pp. 569-570 (p. 569).

 ¹²⁵ The Illustrated Sporting and Dramatic News, 7 September 1901, p. 6.
 ¹²⁶ Ibid., p. 6.

that in life it must carry its head aloft like a giraffe or deer'.¹²⁷ It was a subtle difference, but it denoted how easily the posture could influence and misinform perspectives that fed into general perceptions. These implicit details, as curators Steven Sullivan, Wesley Skidmore, and George Dante have argued, are often the baseline through which expectations of nature derive, which, like the vast majority of visitors who were not equipped to evaluate the details of the okapi, can have far reaching consequences.¹²⁸ It could even be argued that, museologically, the first public okapi specimen was not in the truest sense an okapi at all, but merely a man-made depiction of 'an animal' labelled an okapi. Ironically, it was perhaps more fitting to have compared the first mounted okapi specimen with a dinosaur exhibition, a speculative display to which the curators and taxidermists had no direct observational access – bearing in mind that no European had yet encountered a living okapi, nor had a complete okapi skeleton been sent to Europe.¹²⁹

By comparison, progress in the scientific community on the okapi's classification had started to gain ground. At the same time the skin was being prepared, Sclater, along with Walter Rothschild and George Howes, had taken the bandoliers and larger skull to Berlin to attend the International Congress of Zoology in August 1901. Addressing the attendees, Sclater relayed Lankester's preliminary findings and forwarded the proposed new genus as a marker of international recognition.¹³⁰ A short discussion followed, led by Charles Forsyth Major, a reputable vertebrate palaeontologist and ZSL fellow, who spoke about the 'primitive' form of the giraffine features of the skull. Like Lankester, he remained cautious in assuming the okapi was a relative of *Helladotherium*, showing a lot of interest in the possibility of adult okapis having horns, stating 'until we know the skull of the adult okapi, and the possible sexual differences within it, it is not possible to make a definitive judgement about its relationship to

¹²⁷ 'A Wonderous Beast', *Mid-Lothian Journal*, 6 September 1901, p. 5.

¹²⁸ S. M. Sullivan, W. Skidmore & G. Dante, 'Authenticity in an Uncertain World: Ensuring Accuracy in both the Explicit and Implicit Messages of Exhibits', at *Biodiversity Information Science Standards Conference (Hosted by the Society for the Preservation for Natural History Collections),* (Held June 13th 2018), pp. 1-3 (p. 1).

¹²⁹ L. Rieppel, 'Bringing Dinosaurs Back to Life: Exhibiting Prehistory at the American Museum of Natural History', *Isis*, Vol. 103, No. 3 (2012), pp. 460-490.

¹³⁰ P. L. Sclater, 'A Skull and Strip of the Newly Discovered African Mammal (Okapia johnstoni)', in Verhandlungen des V. Internationalen Zoologen-Congresses zu Berlin 12-16 August 1901 (Jena: Verlag Von Gustav Fischer, 1902), pp. 546-547.

the living and fossil' giraffids.¹³¹ In the meantime, he broadened the okapi's circumscription, arguing that the skull showed a striking resemblance to *Palaeotragus*, a slightly older hornless giraffine genus, thereby modifying the okapi classification further. Calls for a comprehensive study on the available material were growing, as were the number of people eager to obtain additional specimens for study.

As the de facto authority on O. Johnstoni, Lankester responded to these pleas, producing a more in-depth paper that was ready in November 1901.¹³² Compared to his previous report the new paper was quite thorough, containing a more detailed account of the 'discovery narrative', along with fourteen illustrated figures of the skin and skulls prepared by the Danish illustrator, Henrik Grønvold. It was the most comprehensive discussion of O. Johnstoni to date. Moreover, Lankester compared a variety of ruminants from the Natural History Museum with the okapi skulls, constructing a comparative framework of analysis. The paper also included a number of paleo-osteological specimens, using samples from the Parisian Muséum national d'histoire naturelle to support his argument, referring to works published by Charles Forsyth Major and Richard Lydekker. The absence of horns were again discussed at length, as was the character of the skulls, which Lankester concluded were morphologically closer to giraffes than any other ruminant, adding 'the absence of the canine tooth in the upper jaw of the Okapi and the Giraffe might be adduced as ground for supposing that the horns had been at one time more largely developed that at present...and that it would hardly be justifiable to suppose that Okapia must have descended from a horned ancestor'. 133

¹³³ E. R. Lankester, 'On *Okapia*, a New Genus of *Giraffidæ*, from Central Africa', pp. 279-315. Also see, P. J. Bowler, 'Development and Adaptation: Evolutionary Concepts in British Morphology, 1870–1914', *BJHS*, Vol. 22, Iss. 3 (Sept. 1989), pp. 283-297; E. R. Lankester, *Degeneration: A Chapter in Darwinism and Parthenogenesis* (New York: Humboldt Co., 1892).

¹³¹ 'So lange wir nicht den Schädel des erwachsenen Okapi und die eventuellen geschlechtlichen Unterschiede desselben kennen, ist es nicht möglich, ein abschliessendes Urteil über seine verwandtschaftlichen Beziehunger mit den lebenden und fossilen Giraffiden abzugeben'. See, C. J. F. Major, 'Ueber Okapi', in *Verhandlungen des V. Internationalen Zoologen-Congresses zu Berlin 12-16 August 1901* (Jena: Verlag Von Gustav Fischer, 1902), pp. 1056-1057 (p. 1056).

¹³² E. R. Lankester, 'African Mammal Okapia', *PZS*, Vol. II (1901), pp. 473-474; E. R. Lankester, 'On *Okapia*, a New Genus of *Giraffidæ*, from Central Africa', pp. 279-315.

The report was the most complete text regarding the okapi's classification, and was so highly regarded that it was later published in the *Transactions of the Zoological Society*. It was, quite literally, a work on the origins of the species. Appropriate to these developments and in recognition of the okapi's 'discovery', on 18th December 1901, Johnston was awarded the Society's Gold Medal, becoming only the second person to receive the award. The classification of a living giraffe relative was becoming clearer, but its precise taxonomic position within the Giraffidæ family was yet to be confirmed. It was now a matter of procuring the next, possibly living, okapi specimen. The scramble for the okapi had begun.

The Scramble for the okapi – 1902 to 1910

Shortly after news about the okapi had spread across Europe, especially in the run up to the International Zoology Conference in Berlin, King Leopold II of Belgium issued a proclamation to 'the natives [of the Congo Free State] forbidding them to kill the beasts', offering substantial rewards 'to the African dwarfs who live in the Okapi territory for live specimens'.¹³⁴ As king-sovereign of the Congo Free State, effectively the autocratic ruler of a personal colony, King Leopold wielded a considerable amount of influence over of the governance of the territory, and was determined to play a leading role in the search for okapis. In reality, the small number of administrators and the enormous size of the Congo Free State, meant this power was hard to implement and unstable at the best of times.¹³⁵ As Michael Rösler has pointed out, the various ethnic groups in the eastern Congo, especially in the Ituri forest, were largely unaware of the profound impact of colonial rule until the first quarter of the twentieth century, and even then, colonial oversight was particularly patchy; it was often regulated by petty chieftainships.¹³⁶ The remoteness and inaccessibility of the area, coupled with the different styles of colonial intervention between the 'village world' and the 'forest world', constrained King Leopold's early okapi efforts considerably.

¹³⁴ 'A Remarkable Animal of the Congo', *Freeman's Exmouth Journal*, 20 July 1901, p. 2.

¹³⁵ M. A. Rutz, *King Leopold's Congo and the 'Scramble for Africa': A Short History* (Cambridge: Hacketts, 2018), p. 9.

¹³⁶ M. Rösler, 'Shifting Cultivation in the Ituri Forest [Haut-Zaïre]: Colonial Intervention, Present Situation, Economic and Ecological Prospects', *Université Libre de Bruxelles*, Vol. 44 (1997), pp. 44-61.

The border between Uganda and the Congo Free State was still a relatively uncharted area at the turn of the twentieth century, controlled by neither the British nor Belgian colonial administrations. As H. M. Kibulya has argued, 'it was easy to write down the meridian on paper at a conference in Brussels, but when it came to the demarcation and delimitation of the boundary on land, the colonial administrators in the Congo and Uganda could not easily trace the meridian on the ground'.¹³⁷ The Belgians did not know that their territory extended beyond Beni, whilst the British caused confusion by demarcating unexplored territory as their own. The Rwenzori, Semliki, and Mahagi areas were all sources of profound political intrigue at the end of the nineteenth century, which according to Wafula Okumu were 'where the British tried to outwit the Belgians' on a number of issues - to which the scramble for okapis can be added.¹³⁸ Attempting to combat Leopold's proclamation, the British administrators in Uganda issued a similar order to place okapis on a list of protected animals in the Game Regulations of Uganda, forbidding 'any person to shoot or capture the animal on British territory, except by the direct authorisation in writing to the Commissioner for the Uganda Protectorate^{2,139}

Given the first okapi specimens had been obtained via the Congo Free State, it was quickly established that a concerted effort should be made to track down more okapis and map out the range of their natural habitat. As a result, the ZSL set up a committee, hoping to find living okapis in British claimed territory.¹⁴⁰ On March 5th 1902, the sub-committee met to consider the best means for acquiring specimens. It was made up of six members, all of whom had a working understanding of East African zoology or Uganda. Harry Johnston and Maj. Delmé Radcliffe had both worked in Uganda and had established useful political

¹³⁷ W. Okumu, 'Resources and Border Disputes in Eastern Africa', *Journal of Eastern African Studies*, Vol. 4, No. 2 (2010), pp. 279-297 (p. 282).

¹³⁸ H. M. Kibulya, 'Geographic Contrasts on the Bwamba-Congo Border', in *The Political Geography of the Uganda-Congo Boundary*, eds. H.M. Kibulya and B.W. Langlands (Kampala: Makerere University College, 1967), pp. 1-56 (p. 11).

¹³⁹ 'Protecting the Okapi', *The Beverley Recorder and General Advertiser*, 23 November 1901, p. 7.

¹⁴⁰ Stories regarding the okapis' habitation had emerged in various discussions, especially at the Royal Geographical Society, but these claims were far from attestable - an expedition would need to be arranged. For example, Dr. Cuthbert Christy, who had spent two years exploring northern Nigeria, believed okapis could be found east of the Niger river, extending the okapis territorial range further west. This was later disproven. See, 'The Uganda Protectorate, Ruwenzori, and the Semliki Forest: Discussion by H. M. Stanley, J. E. S. Moore and Bowdler Sharpe', *TGJ*, Vol. 19, No. 1 (Jan., 1902), pp. 39-51.

connections, whilst Oldfield Thomas, Lankester, and Sclater had personal and professional connections within the zoological community.¹⁴¹ John Budgett, the final member, was chosen as the candidate for any future expeditions. He was a research student at Cambridge University's Zoological Museum, and had recently been awarded a studentship to study *Polypterus*, a freshwater fish, near Lake Albert, which, in addition to £100 granted by the ZSL, helped make the possibility of a combined expedition a reality. With a little persuasion from Johnston, a special permit was thereby granted by Sir Clement Hill, the superintendent of African Protectorates at the Foreign Office, allowing Budgett to capture or shoot two okapis.¹⁴²

Budgett departed for Entebbe in May 1902, but shortly after he arrived, it became apparent that okapis did not inhabit the regions outside the Congo Free State. Reporting back to the ZSL, Budgett noted it was useless to try and find them and that he had learnt around Christmas 1902 that the Belgians had found them in large numbers.¹⁴³ Indeed, just a month after Budgett left England, Charles Forsyth Major announced at a ZSL meeting that the remains of two okapis had been sent to the Belgian Museum of the Congo in Tervuren, including a female skin and a complete adult male skeleton.¹⁴⁴ The British lead on okapi specimens was over, as was the idea of sourcing okapis in Uganda. Nevertheless, the Belgian specimens did not end the scramble for okapis. On the contrary, the new information inspired more people to plan expeditions, as the Belgians had proved additional specimens were obtainable [figure 25]. The more areas that were covered, the more likely a future expedition would be to encounter an okapi as uninhabited areas could be circumvented.

¹⁴² A full settler's license was not granted. There were also some misgivings about the expedition, especially from Lankester, who guessed it would take at least six months to catch a live specimen in a pit trap, not to mention the difficulties in transporting it Britain. See, J. S. Budgett to P. L. Sclater, 17 May 1902, ZSLA, John Samuel Budgett Papers; E. R. Lankester to P. L. Sclater, 7 March 1902, ZSLA, Edwin Ray Lankester Papers.

¹⁴¹ H. H. Johnston, 'Major Delmé Radcliffe's Map of the Nile Province of the Uganda Protectorate', *TGJ*, Vol. 21, No. 2 (1903), pp. 162-164.

¹⁴³ J. S. Budgett letter to P. L. Sclater, 13 July, 1 December, 24 December 1902, ZSLA, John Samuel Budgett Papers.

¹⁴⁴ In contrast to the British specimens, the Belgian specimens highlighted the cranial differences of the two sexes, revealing that adult male okapis possessed 'horns'. Equally, the skeleton, which was the first to arrive in Europe, definitely proved that the okapi was a ruminant. Much to Lankester's annoyance, the skeleton implied the mounted skin at the Natural History Museum was slightly stretched. See, E. R. Lankester to P. L. Sclater, 12 June 1902, ZSLA, Edwin Ray Lankester Papers.

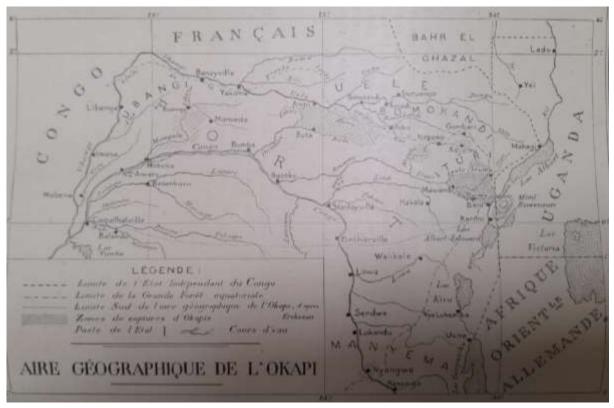


Figure 25. Estimated geographical area of the okapi in 1907. Map from H. J. Fraipont, 'Monographie d'Okapi - Contributions a La Faune Du Congo, Okapia', *Annales du Musée du Congo*, Ser. II, Vol. I (Bruxelles: 1907), p. 82.

From this point onwards, there was a steady flow of specimens to Europe, mostly obtained via the Museum of the Congo in Belgium. Between 1903 and 1910, at least ten specimens were supplied by the Museum of the Congo to natural history museums across Europe, and at least one skull was sent to America. Like other zoological specimens sent to museums, the remains of the okapis were divided up and sent to different institutions, with different anatomical elements distributed across the continent. In Paris, for example, there were two okapi specimens that collectively displayed the internal and external anatomy of an okapi. The display contained a mounted skin and mounted skeleton. The mounted specimens, however, did not correspond to the same animal, the former belonging to a skeleton displayed in Stockholm, and the latter corresponding to a skin exhibited in Tervuren. These museums in turn, had other mounted specimens pairing internal and external anatomical features with other institutions, creating a web of disembodied okapi specimens.

Recounting the afterlives of all these specimens would be too lengthy to discuss here, as each okapi displayed – whether that included the skin, skull,

skeleton, or a combination of any three - underwent varied stages of museological maturity, presentation, and reception. Viewed as a collective whole, though, it is clear that by 1910 okapi specimens had become widespread across Europe. By comparison, Britain stayed clear of these continental dealings, and during the same period managed to acquire seven of its own specimens. All collectors had some form of connection to the ZSL and the okapi sub-committee; in each case, the expeditions were organised by fellows of the ZSL. In September 1903, Walter Rothschild organised a special expedition to secure an okapi specimen for his private museum at Tring, securing a female specimen for £300.¹⁴⁵ The following year, two other expeditions were organised: one by Percy Powell Cotton, and the other by Boyd Alexander. Both parties set off in early 1904, the former as part of his honeymoon to East Africa, returning to England with an okapi specimen in 1906, and the latter travelling across Africa from the Niger to the Nile, securing a specimen in 1907. The taxidermist Rowland Ward also purchased four specimens for his private collection in Piccadilly and the British Museum between 1906 and 1907.¹⁴⁶ By 1907, Britain possessed nearly half of all known specimens in Europe, and more than twice as many as the next largest national collection, which was held in the Belgian Museum of the Congo. Thus, whilst Belgium was geopolitically well positioned, when it came to the procurement and distribution of okapi specimens across Europe, the ZSL and its members still played an active role in the scramble [table 5].

Alongside these material gains, the ZSL community also produced a number of academic papers on the okapi, utilising the growing number of specimens to enhance its knowledge base. The move, in short, aimed to dominate the production of okapi knowledge through the Society's scientific papers, going beyond the mere accumulation of physical material. Therefore, for the ZSL, there was somewhat of a turning point around 1903, as the Society's fellows began to publish various papers on aspects of *Okapia*. The papers ranged from discussions on the layout of hair whorls on a female okapi, the asymmetrical

¹⁴⁵ M. Rothschild, *Walter Rothschild: The Man, the Museum and the Menagerie* (London: Natural History Museum, 2008), p. 76; Anon., 'Scientific Notes', *Scientific American*, Vol. 56, Iss. 1447 (Sept. 26, 1903), p. 215.

¹⁴⁶ It is unclear how or where these specimens were originally acquired. See, R. Lydekker, 'On Hornless Okapis', *Journal of Natural History*, Vol. 6, No. 32 (1910), pp. 224-226.

Timeline of events		Known okapi specimens in Europe	
		Britain	Continental Europe
1900 20 th November	The 'new horse discovery'. Johnston sends bandoliers to Britain		
18 th December	Bandoliers exhibited for the first time at ZSL scientific meeting	Small piece of skin	
1901 4 th February	Philip Sclater gives provisional name <i>Equus Johnstoni</i> [?] to specimen		
7 th May	Watercolour painting exhibited at ZSL scientific meeting		
18 th June	Skin and two skulls exhibited at ZSL scientific meeting	One complete skin and skull, another skull	
9 th November	Edwin Ray Lankester paper 'On Okapia' read at ZSL scientific meeting. Later published in the <i>Transactions</i>		
1902 5 th March	Okapi Committee formed at ZSL		
3 rd June	Charles Forsyth Major informs ZSL fellows of specimens at the Congo Museum, Belgium		Belgium: One almost complete skin, one almost complete skeleton. (Another skin also displayed in Stockholm)
13 th July	Lankester proposes separate subspecies O. <i>Erikssoni</i> and O. <i>Johnstoni</i> for specimens		, , , , , , , , , , , , , , , , , , , ,
18 th November	Charles Forsyth Major informs ZSL fellows of more specimens at the Congo Museum		Belgium: One complete skin and skeleton
1903 20 th January	John Budgett confirms no sightings of okapis in Uganda.		
26 th September	Walter Rothschild secures okapi skeleton for Tring Museum	Complete skeleton	
1904 15 th November	Philip Sclater visits Europe to view two mounted okapis. Others have also arrived in Europe		Four skulls displayed in Rome, Madrid, Genoa, Paris. Two skulls displayed in Basel
1906	Powell-Cotton's okapi specimen arrives in Britain	Complete skin and skeleton	
1907 5 th February	Lankester visits Paris to see a specimen. Other skins have also started to arrive in Britain	Three skulls and three separate okapi skins	
1910	Lankester publishes Monograph on the Okapi		

Table 5. Timeline of okapi specimens sent to Europe, 1900-1910

skin patterns on the hind legs, to the geographical distribution of the okapis, and eventually in November 1906, a rudimentary talk on the development of an okapi embryo. There was even a small flurry of excitement at the prospect of three okapi species co-existing in the Ituri forest, as the colour and patterns of skin samples were incredibly wide ranging.¹⁴⁷ When the Belgian specimens were first acquired in 1902, Lankester argued that Johnston's original mounted skin was possibly a separate species, designating the Belgium skin and Johnston's bandoliers *O. Johnstoni*, and the complete British skin as *O. Erikssoni*, after the Swedish commandant.¹⁴⁸ A few months later, Forsyth Major proposed another sub-species for a new skin and skeleton deposited in the Museum of the Congo, *O. Liebrachsi*, but, by 1906 these two labels had all but been rejected. The idea that multiple sub-species could co-exist in such a small area was deemed too unrealistic. In the end, it was widely agreed that all specimens were *O. Johnstoni* and that okapis simply exhibited an unusually high skin pattern variation.

Specialist papers continued to appear, and after 1905, they emerged in magazines, popular scientific journals, and hunting periodicals. Of course, scientific papers were not entirely restricted to the ZSL *Proceedings*, and a number of important monographs were published elsewhere. For example, as a giraffids specialist, Forsyth Major was asked to produce a monograph for the Belgian authorities in 1902, publishing his preliminary notes in *La Belgique Coloniale*. However, after two years and no complete monograph, the authorities turned to the Belgian palaeontologist Julien Fraipont, who prepared his own publication at the close of 1905. Although the delay had its advantages – he was able to use Forsyth Major's illustrated plates and more specimens were available than in 1902 – the monograph was relatively conformist and Fraipont struggled to get it in print.¹⁴⁹

¹⁴⁷ E. R. Lankester to P. L. Sclater, 12 June 1902, ZSLA, Edwin Ray Lankester Papers.
¹⁴⁸ E. R. Lankester, 'The Specific Name of the Okapi presented by Sir Harry Johnston to the British Museum', *The Ann. & Mag. Natural History*, Vol. X, Ser. 7 (1902), p. 417.
¹⁴⁹ It was reviewed by Lankester and Johnston in *Nature*. They described the work as an important addition to the understanding of the okapi, but was not nearly as accessible to ordinary students of zoology as other publications. See, R. Lankester, 'The Okapi Monograph', *Nature*, Vol. 78 (1908), pp. 66-67; H. H. Johnston, 'A Monograph of the Okapi', *Nature*, Vol. 85 (1910), pp. 209-211; H. J. Fraipont, 'Monographie d'Okapi - Contributions a La Faune Du Congo, Okapia', *Annales du Musée du Congo*, Ser. II, Vol. I (Bruxelles: 1907), pp. 5-118.

Similarly, in Paris, Maurice Rothschild and Henri Neuville published a monograph between 1909 and 1911, which was issued in two parts in the Annales des Sciences Naturelles.¹⁵⁰ However, the last major publication before the First World War was Lankester's own 'Monograph of the Okapi', which was also published around this time. With the advantage of time and the largest array of materials available, Lankester's monograph included two whole series of skins and skulls, the first from the Natural History Museum and the second from other museums and private collections. In total, forty-three illustrated plates were included, dealing with the various morphological elements of the available body parts. Fifteen skulls, fourteen skins, and thirty-three bandoliers were examined, as well as a series of plates dealing with the cervical vertebrate comparing giraffes, camels, oxen, and elephants. The above-mentioned authors worked more or less independently from each other, but in a general way they saw the okapi as a primitive giraffid related to the fossil genera Palaeotragus and Samotherium.¹⁵¹ The Proceedings of the Zoological Society however, remained the gold standard journal for papers discussing okapis.

By 1910, the urgency of the scramble for okapis had more or less dwindled and the need to procure specimens had eased. The interests of zoology had moved on, and although still discussed in seminal papers, the focus of the okapi was left to explorers, hunters, and a small number of likeminded devotees. The next pressing task was to capture a live okapi, but this was still a few years away. The initial demand to discover, classify, and obtain okapi specimens had been achieved.

Conclusion: Okapia Johnstoni beyond 1910

The narrative of the okapi's western discovery is an interesting and insightful case study that sheds light on the process of establishing and formulating zoological nomenclature. As the most recent large mammal to be recognised as a

¹⁵⁰ M. de Rothschild & H. Neuville, 'Recherches sur L'Okapi et les girafes de l'est African –
Primière Partie', *Annales des Sciences Naturelles - Zoologie*, Ser. 9, Tome 10 (1909), pp. 1-93;
M. de Rothschild & H. Neuville, 'Recherches sur L'Okapi et les girafes de l'est African –
Seconde Partie', *Annales des Sciences Naturelles - Zoologie*, Ser. 9, Tome 13 (1911), pp. 1-186.

¹⁵¹ E. H. Colbert, 'The Relationships of the Okapi', p. 47.

completely separate genus, the emergence of O. Johnstoni was undoubtedly 'one of the most exciting events in the history of modern mammalogy'.¹⁵² In the process of 'discovering' the okapi, a whole series of people and places were involved in the encounter, functioning as interlocking points of communication that go beyond the 'big names' involved. This included a myriad of participants ranging from the local hunters who acquired the bandoliers, to the porters who carried the first skin and skulls out of the Congo to Uganda in 1901. The determinants of knowledge were wide-ranging and stemmed from a number of different loci, collectively integrating zoologists, taxidermists, illustrators, and other invisible technicians in the processes of encountering the animal. Indispensable to this transfer of knowledge, of course, were the local peoples of the Ituri forest and surrounding areas, who knew about this animal long before Europeans ventured into the region. As subsequent expeditions came to find, local hunters were vital when tracking down and capturing okapis, a point Cuthbert Christy acknowledged during his expedition to Central Africa in the 1920s, stating 'until about 1910, nearly all okapis [were] procured by natives...it is doubtful if any European had seen one alive and unwounded before 1907'.¹⁵³ Nearly all specimens sent to Europe during this period were shot or captured in pits dug by local hunters, and their role in the scramble for okapis was critical.

The process of classifying the okapi was equally complex, undergoing a number of transitory phases. Even before physical evidence was obtained, the okapi was regarded as an elusive mythical creature in the eyes of Europeans, starting off as a description and hypothetical organism based on verbal accounts and interactions with Congolese Mbuti people. Such accounts were not static, and, for the handful of Europeans initially aware of its existence, local descriptions ranged from sightings of horses, antelopes, and even a unicorn. What followed was a dialectical transition from local indigenous knowledge into a process of colonialising that information, moving from a predominantly oral paradigm to a published material format. In other words, 'in the story of the okapi, the ambiguities of power remain[ed], its official name taken from a servant of empire, whilst on the other hand, its common name [was] a vernacular word from an

¹⁵² Ibid., p. 47.

¹⁵³ C. Christy, *Big Game and Pygmies: Experiences of a Naturalist in Central African Forests in Quest of the Okapi* (London: MacMillan, 1924), p. 53.

otherwise globally voiceless people'.¹⁵⁴ European colonisers defined 'legitimate knowledge as Western knowledge', imposing a monolithic worldview that gave power and control to Europeans, delegitimising other ways of knowing as erroneous, superstitious and primitive.¹⁵⁵ Once the bandoliers emerged, Johnston sought to give it a label, determining its vernacular name to be inadequate. Although mistaken as a horse-like creature, its name slowly evolved as different body parts became available in Europe. First it was an ungulate, and then a generic ruminant. Only after extensive discussion and further investigation was the animal inferred to possess cloven-hooves, transforming its taxonomic position that eventually placed it within the Giraffidæ family. Subsequently, the genus *Okapia* was established, classifying the animal within the western taxonomic system. But even then, the process of classification was not entirely set in stone, and its evolutionary position was altered further within the Giraffidæ family, first as a relative of *Helladotherium* and later in relation to *Palaeotragus*.

At the centre of this discussion, was the animal itself. An animal that, as events unfolded, had an evolving materiality. At first it was represented by two strips of hide, then an adolescent female skin and skull, and eventually entire skeletons of both sexes. However, the okapi was still incomplete, morphologically limited to just the skin and bones; the internal organs were yet to be acquired. Moreover, in order to support these scientific conceptions, the okapi's classification depended on how other animals were understood. In other words, without the comparison of other ruminants and Giraffidæ species, extant and living, the notion of classifying the okapi would have been immaterial. There was still much to learn about the okapi, and it would be another nine years before a living example would arrive in Europe. Nevertheless, like the people who produced the validations of its western epistemological understanding, the okapi itself was also an agent that connected people, places, and species together, adjoining a material lineage of Giraffidæ ancestors back to the Miocene era. It was not just the epistemological methods that connected people, but the physical entity and body of the okapi that generated this knowledge. The precise

¹⁵⁴ S. Swart, 'O for Okapi', p. 135.

¹⁵⁵ F. A. Akena, 'Critical analysis of the Production of Western Knowledge and Its Implications for Indigenous Knowledge and Decolonisation', *Journal of Black Studies*, Vol. 43, No. 6 (2012), pp. 599-619 (p. 600).

relationship between okapis and extinct giraffids, as well as its place akin to the evolutionary development of the giraffes, continues to be a topic of intense debate, and these alterations have had a direct impact on the scientific and museological perceptions of the okapi to date.

The 'discovery' of the okapi remains a particularly intriguing story, adding a curious animal to a wider euro-centric understanding of the natural world. Although Harry Johnston continues to be seen as the 'great discoverer' in this sequence of events, the argument presented here demonstrates that within the wider context this epithet is not entirely appropriate. Whilst Johnston's role in the western encounter of okapis cannot be ignored, it is clear that he was not the only participant. Johnston would never see a living okapi in his lifetime, but, the collective efforts of those around him would kindle a popular interest in an animal that remains an emblem of the Congo, and an iconic well-loved creature in many zoos around the world. The ZSL and its scientific community played a prominent role in the okapi's western encounter, and like the okapi itself, connected various people involved in the 'discovery', classification debate, and scramble for okapi specimens which occurred between 1901 and 1910.

Conclusion

From Mitchell to Mitchell: A New Century at The Zoological Society of London

On 15th October 1902, Philip Lutley Sclater announced his intention to step down as secretary of the Zoological Society of London, having served forty-three years in the post. His retirement marked the end of an era for the Zoological Society in more than one way – although he did remain an influential figure at the Society after his retirement. Many of the ZSL's old guard had retired or died in the last few years of the nineteenth century, including the gardens' long standing superintendent, Abraham Dee Bartlett (who had died in 1897) and William Henry Flower (the ZSL president since 1879, who had passed away in 1899).¹ Thus, the start of the new century not only marked the end of the Victorian era, but also the passing of a generation of scientists; with the Edwardian period came the ascendancy of a new cohort of zoologists.

Initially, Sclater was replaced by his son, William, who was temporarily made secretary in December 1902, remaining in post until his role could be ratified at the annual general meeting in April 1903. However, many ordinary fellows were irritated with the council's nomination – it later transpired William Sclater had won the council ballot by one vote – nor were they too pleased that the council had awarded Philip Sclater a £700 pension without due consideration. Like Clarence Bartlett's appointment as superintendent following his father's death in 1897, there was a hint of nepotism in the air. The process of electing the new secretary would prove to be very fractious. The annual general meeting was held as usual in the Society's offices in Hanover Square, but, following the demands of a defiant groups of fellows, an election was tabled after an alternative candidate – Peter Chalmer Mitchell – was proposed. The 'battle for the appointment of secretary ha[d] reached its climax', recorded the *Daily Express*, and, breaking with tradition, the results were read at Baker Street's Portman

¹ Several of the society's most frequent council members also retired or died around this period, including Thomas Huxley (died 1895), Osbert Salvin (died 1898), George Mivart (died 1900), George Howes (died 1905), and William Blanford (died 1905).

Rooms on 29th April 1903.² At around six o'clock in the evening, much to William Sclater's dismay, Peter Chalmer Mitchell was officially elected the new secretary of the Zoological Society of London. In a befitting turn of events, fifty-six years since David Mitchell was appointed secretary, another Mitchell was in charge of the Zoological Society.

The so-called battle for the secretaryship is a fitting place to draw this thesis to a close, as the events which unfolded in early 1903 were a defining moment, symbolising the beginning of a new chapter in the ZSL's history. Indeed, for the purpose of this thesis, the change in secretary can serve as a useful marker for considering the Society's history from 'Mitchell to Mitchell', and to reflect on some of the zoo's wider developments in the nineteenth century. One article published in *The Pilot* just a few days before the secretary election aptly encapsulated this sentiment, summarising the events and general condition of the Zoological Society at the start of the twentieth century. Importantly, the article hinted at some of the motifs that have been discussed in this thesis, stating:

The long contention which has a reason over the management of the animals in Regents park really lies...between two classes of naturalists [namely Sclater and Mitchell]. There is further some confusion as to whether the animals in the cages or the animals - we must not confuse our kingdoms who go to see them ought first to be considered? Of the visitors a large proportion are children and those who go with them. Artists, photographers, Americans and odd persons desirous of killing time, help to swell the crowd...Lastly come a few naturalists who love the animals and wish to learn all about them...[yet] there is no imperative put upon the authorities to keep up the number of specimens, unless - and this we are loth to believe - that foolish pride is abroad which desires the Zoo to possess more specimens than the Berlin Gardens or the Jardin des Plantes...a zoo is demanded. It serves a purpose and may give great pleasure; it may do good; and it is altogether a mistake to think that birds and beasts, and fishes are necessarily unhappy in captivity... In summer [the zoo] contains a happy family enough, and the vivid imagination of a child may jump from Regents park to East Africa at the sight of the strutting ibises...the zoo is not a museum: but it is experiences in museum work that the candidates [of the secretaryship] offer as their most convincing qualification... Sympathy does not count high enough, and the fellowship of the Society is almost a monopoly of the men of Science. So many people love the zoo... prettily, properly, and humanely organised [as it is], it [can] support itself...The public does not want a double

² 'Jingo the Second: A New Indian Elephant Expected Shortly', *Daily Express*, 28 April 1903, Press Cuttings Book, Vol. 4: 1903 - 1904, ZSLA, GB 0814 HCAA.

collection of stuffed animals: one in Regents park, another at South Kensington. $\!\!\!^3$

As shown in the aforementioned article, the zoo had become a popular institution by the turn of the century, appealing to a variety of people which included families, artists, and naturalists. In the same way that the leadership contest was vital to the transformation of the Society's governance and presentation, public access to the gardens was paramount to the Society's success, which, harking back to the Society's transformative policies in the late 1840s, had sustained a public fascination with exotic animals throughout the second half of the nineteenth century. A zoo was demanded, and – not wishing to turn the gardens into another museum collection – the appeals of animated nature were an essential component of the zoo's aesthetic. Such ideals reinforced the notion that the gardens could simultaneously be a place of great pleasure *and* of scientific purpose. It was the scientific spectacle – first enacted by David Mitchell – that enabled the Society to enjoy its prolonged period of popularity.

People who came to the gardens were not only influenced by the architecture and physical space, but also through the encounters they had with the animals. The metaphorical links with the wider world were particularly prevalent, which, as the article pointed out, helped transport the visitors' vivid imagination to distant lands. One way of ensuring that cultural hegemony was to secure more specimens than other zoos, bolstering the zoo's appeal in connection with imperial prestige and European rivalry. Although the territorial scramble for colonies had somewhat reduced in intensity by 1903, instead turning to the consolidation of colonial territories, the markers of imperial aggrandisement were still present at the zoo. Likewise, as revealed through the two candidates standing for election, the professionalisation of science had clearly taken hold. Unlike the Tory coterie which dominated the Society's council in the early nineteenth century, men of science had gained controlled of the Society's management by 1903. In just over half a century, beginning with David Mitchell's secretaryship in 1847 and ending with Peter Chalmer Mitchell's election, the ZSL

³ 'The Zoo and its Managers' *The Pilot*, 25 April 1903, Press Cuttings Book, Vol. 4: 1903 - 1904, ZSLA, GB 0814 HCAA.

as a place of scientific, cultural, and educational display, had undergone a momentous transformation.

Where the wild things are: Curating, collecting, and classifying nature

The Zoological Society of London was a pioneering institution at the start of the Victorian era, becoming a world-class establishment by the end of the nineteenth century. This thesis has explored the developments of the Zoological Society and its gardens during this period, looking at how London Zoo shaped understandings of the natural world. By applying three overarching themes – namely the nature of science, the history of animals, and the global context in which the ZSL operated – this thesis has accounted for the ways the ZSL curated, collected, and classified animals to inform these understandings of nature. Beginning with the animals and expanding outward to look beyond the enclosure space, the three themes have highlighted the interplay between the functioning life of the zoo and its wider enchantments with natural history.

The nature of science at the Zoological Society was particularly important in this configuration, contributing to the advancement of zoological science through the gardens' and the Society's scientific meetings. As has already been argued, the contours of science at the ZSL were just as much a social activity as an epistemological endeavour, involving many people in the production of zoological knowledge. This included zoologists at the scientific meetings, 'invisible' technicians around the gardens, external reinforcers, as well as the public within the zoo's general remit. Collectively, these groupings shaped the nature of science with the intricacies of 'high' and 'low-brow' forms of science circulating different, yet often co-constitutional, ideas about the natural world. The zoo was not just a centre for accumulating knowledge, but was one amongst many institutions which engaged in the spread of information, relying on different nodal points to inform its various audiences. Spatial configurations were key to these exchanges, reinforcing multidirectional complexity which flowed from place to place and between actants. The combination of these situated knowledges helped link a multiplicity of visions in both the generation and immersion of zoological sciences, creating multiple layers of scientific interpretation concerning the natural world.

The second element that distinguished the zoo was its commitment to live animals. The animals' importance in the zoo space was self-evident, but how they were perceived, as individuals and as representatives of their species, was often more complex. No two animals were considered the same or viewed in complete isolation, creating real and imagined perceptions of different species. This was especially true for large charismatic species like the elephants and giraffes, whilst those deemed new to (western) science were also studied in relation to other animals; the okapi was first compared with equines and later other giraffids before it was classified as a distinct genus. Similarly, the social complexity and interrelationality of species – both human and nonhuman – helped influence general understandings of the animals' place in the world, and by extension certain humans. As Harraway has remarked, these interactions ensured humans and nonhumans engaged in 'mortal world-making entanglements' and a 'subject- and object-shaping dance of encounters'.⁴ Physical interactions were frequent, most obviously during elephant rides, but also at feeding times and when visitors taunted the animals, shaping ideas and prejudices in a discoursal tapestry of cross-species sociality. Likewise, foreign handlers were often viewed in relation to the animals they tended, with commentators adopting racial, social, and religious criteria to encapsulate their imposed identities. In concurrence with John Miller, these representations were common tropes of colonial discourse, forcefully asserting a gulf between oppressor and oppressed, subsequently 'opening a range of violent and repressive possibilities for colonial rulers as racial others [were] emptied of their human[ness]'.⁵ Classified as neither fully animal nor fully human, non-Europeans handlers were viewed alongside the animals, supposedly possessing physical and mental gualities more closely affiliated with the animals than the 'civilised' visitors.

Lastly, the emergence of the zoological gardens as a public institution also coincided with a period of intense exploration and imperial expansion, with a vast

⁴ D. Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), p. 4.

⁵ J. Miller, *Empire and the Animal Body: Violence, Identity and Ecology in Victorian Adventure Fiction* (London: Anthem Press, 2012), p. 2.

array of animals sent from colonised territories. As shown throughout the thesis, empire played a crucial role in the formation of the zoo's living collection, facilitating connections with the non-European world and the animals' natural habitats. As transportation links and communication networks improved, links with colonial spaces made it easier for the Society to acquire animals, encouraging additional connections and opportunities solicited through government agencies and colonial administrative apparatuses. In-situ benefactors provided the Society with the bulk of animals, empowering the public to instil their own perceptions of colonial acquisitiveness in the gardens' space. As a result, animals were not only displayed as symbols of a distant colonialism but were very real emblems of a colonised world. Unlike historic museum pieces temporally disassociated from their place of origin, the zoo's animals were living, breathing objects of contemporary curiosity and colonial entanglement. Whether this was enjoying an elephant ride or associating the (brief) lack of giraffes with the Mahdists in the Sudan, the zoo served as a site of imperial experience that was infused with on-going colonial encounters. Furthermore, as the territorial integrity of empire changed, different nodal points were made and remade as the relationships between colonies, as well as between Britain and its colonies shifted. This web-like spatiality of empire meant that connections with the zoo were not always linear but fluid, sometimes including trans-imperial 'cultural traffic' in the crisscrossing operations of empire. In this respect, the zoo's connections with the British Empire were dialogic rather than static, relying on a complex mesh of flows, exchanges, and engagements that evolved over the course of the century.

Through the zoo's space and the animals displayed therein, the ZSL played a key role in conveying a curated version of nature. As displayed through the three themes, by curating, collecting, and classifying animals, the ZSL shaped a particular version of the natural world. Although this euphoric image did not reflect the true realities of a natural environment, the zoo nevertheless served as an important centre for transmitting a culturalised perception of nature. In order to facilitate this façade, the Society relied on a variety of benefactors to collect specimens, usually involving many people at different stages of the process. Mortality rates were high, and not all animals survived the journey. For those that

Conclusion

did survive, however, they became living emblems of the non-European world – in most instances, of the colonised world – reinforcing tropes of colonial discourse. On the other hand, for those that died en route or were deliberately killed and sent as specimens, fellows and zoologists were keen to classify these species at the Society's scientific meetings. The combined relationship of these three themes has demonstrated that the ZSL's history cannot be studied without acknowledging the local, global, and interspecies dynamics of historical zoo discourse. The nature of science, the role of animals in historical studies, and the global-imperial context were all important components, which, having been used throughout this historical inquiry, illustrate how the Zoological Society of London shaped understandings of the natural world. Through the process of collecting, curating and classifying animals, the ZSL therefore perpetuated a pretence of an ordered natural world. In essence, the Zoological Society of London was a melting pot of social and cultural interaction, connecting people and animals through a web-like global paradigm.

Beyond the bars: Lasting legacies in the zoo space

Returning to the great lawn in London Zoo, which has served as a useful reference point throughout this thesis, it is only right to finish the conclusion where this study started. As a central fixture of the gardens' space, the great lawn has served as a key site of interaction between humans and animals ever since the zoo first opened in 1828. Here, some of the smallest and most brightly-coloured species of birds were displayed in glass cases, whilst the chance to encounter the world's largest known elephant happened only metres away. Now, under the canopy of the fully grown Turkey oak trees, these sights and sounds are no more. Quite understandably, the zoo has changed considerably since the nineteenth century. Yet, even today there are still cultural markers and monuments which recall this bygone era and continue to permeate the gardens' space. Thus, it is perhaps befitting as a final remark to take one last stroll through the gardens of the Zoological Society of London.

Not far from the great lawn in the main gardens is the Society's original lama house, topped with its iconic clock tower which was added in 1831. It is one

249

of the few remaining early buildings still extant in the zoo, and - although no longer used for animals – it stands as a permanent reminder of the rustic garden style that was once filled this space and of how zoological designs have evolved. Nearby, visitors can venture through to the middle gardens via the East Tunnel which, like the llama house, was designed by Decimus Burton and is still used to connect both sites. The tunnel remains a vital connection for getting around the zoo, and has retained its original southern entrance portal, enabling visitors to walk under the same arch that the elephants once 'shrugged their shoulders' to get through. Upon reaching the other side, however, visitors are confronted with a more modern building, the ZSL Institute of Zoology, with its posthumously named Huxley Lecture Theatre, and Bartlett Suite - the former in honour of the ZSL secretary Julian Huxley (1935-1942) and the latter to Abraham Dee Bartlett, the ZSL's superintendent (1859-1897). The Institute of Zoology is now the research division of the Zoological Society of London, seeking to address the global challenges in the field of conservation science. The Huxley Lecture Theatre is also home to the Zoological Society's annual meetings, and, fitted with traditional fixed tiered seating, is a poignant reflection of the Society's long standing scientific tradition that was once held in central London.

Intriguingly, the west wing of the Institute of Zoology is the site where John Gould's hummingbird collection was placed in the summer of 1852, after it was moved from the great lawn in November 1851. Although Gould's hummingbird collection was only a temporary exhibit, some of the display cabinets have survived to the present day and are currently held in the Natural History Museum library's Rare Books Room. The whereabouts of the hummingbird cases is an appropriate illustration of the resultant shift in emphasis from deceased to live animals that occurred in the zoo in the mid-1850s. As demonstrated in Chapter 1, the nature of animal displays underwent a dramatic change in the earliest portion of the Zoological Society's history, especially once the public were a utility of science and a philosophical approach to zoology, creating serious disagreements over the direction of the Society. However, under David Mitchell's secretaryship (1847-1859), the Society's situation greatly improved and London Zoo was transformed into a popular public resort, redefining what public science,

Conclusion

education, and entertainment meant in the context of the zoo. The charm of novelty had surpassed the perceived importance of the Society's museum specimens, subjecting 'the allures of zoology' to new forms of interpretation via the gardens' living collection.

The effects of this shift, emphasising the importance of the living collection, can still be felt today, which, going back to our walk through the gardens, is underscored by the number of zookeepers milling about the gardens. They can be found in and out of the enclosures, communicating on their walkie-talkies, and pushing wheelbarrows full of food amongst their other duties. Stationed all over the zoo, zookeepers have continued to play a key role in the layout of the gardens space. Chapter 2 showed how in the nineteenth century keepers were moulded by the context of their interactions in the gardens' space, and how, as a group of 'invisible' labourers, they have generally been overlooked in zoo histories. They were not only animal carers but entertainers, stewards, workers, and practical experts tasked with watching over the animals. Foreign handlers were also present, including Hamet Safi Cannana, who, having accompanied Obaysch the hippopotamus from Egypt in 1850, became the longest serving non-European handler in the gardens. The public considered Hamet a reliable witness of the 'Arab world', judging him to be an essential part of the enclosure aesthetic alongside Obaysch. However, unlike the sculpture of Obaysch that currently welcomes visitors to the ZSL Library and Archives, Hamet's presence in the archives, alongside other 'white' keepers, has been shown to be more subdued.

A little further on, is the site where the elephant house once stood. Like common hippopotamuses, elephants are no longer housed in Regent's Park, but their legacies have certainly endured. For better or for worse, architecturally speaking, there is nothing left of the 'Swiss chalet' elephant house occupied by the elephants discussed in Chapter 3. Once the place where visitors debated the light and darkened patches of Taoung Taloung's skin, the site is now the 'Night Life' habitat for bushbabies, lorises, and naked mole rats – the latter facilitating their own unique skin-based discussions in a light-reversing exhibit. Chapter 3 charted how the elephant (s) were perceived and encountered in the zoo. Not individuals outside the enclosure space, and in much closer proximity. Appreciated and occasionally disdained through a combined collective/individual lens, real and imagined interactions fed into nineteenth century truisms of elephants, creating anthropomorphic attachments and racial comparisons between species. In the end, Jumbo's 'uncivilised' outbursts became his downfall, whilst Taoung Taloung was subject to preconceptions of a white elephant aggravated by Barnum. Jung Perchad, on the other hand, was literally and figuratively overshadowed by Jumbo and his overwhelming popularity. Through the elephant's curated interactions, the notion of an intra-species lens helped breach the gap between the individual and generic modes of understanding the elephant(s), and by extension other gregarious animals in the zoo space.

Walking past the site of the old elephant house, is the giraffe house. The giraffe house (designed by Decimus Burton in 1836) is still in use today, albeit refurbished and modernised on the inside, highlighting the longevity of the giraffe species exhibited in the gardens. First presented in 1836, the giraffes have continued to be a central fixture in the gardens' menagerie. Chapter 4 examined how the Society sustained its animal collection, exploring the logistics and class of associates involved in the process of procuring animals. The practicalities involved in acquiring animals were incredibly complex, and were just as wideranging as those who sought to present them to the gardens. As the century progressed, many of these benefactors were tied to the expansion of empire, further integrating the Society's procurement processes with colonised environments. The jubilee giraffe marked the epitome of this entanglement, connecting the colonial office, royalty, and the ZSL in the process of the giraffe's acquisition. Environmental factors also played their part, which, for the jubilee giraffe, included navigating the restrains of rinderpest, overcoming the stormy weather en route to Britain, and accommodating the giraffes own temperament throughout the journey. Although it ended in tragedy, the giraffe's procurement was intended to be a ubiquitous symbol of imperial unity in the Queen's jubilee year.

Lastly, in the furthest eastern corner, we reach the final enclosure in the middle gardens of London Zoo. In 1900 this enclosure was home to the Society's

Conclusion

series of zebra and wild asses. Now, in a quaint turn of events, it is home to the okapis. Unknown to most naturalists at the turn of the last century, the 'discovery' of the okapi fundamentally changed the basic assumptions of the taxonomic family Giraffidæ. As a distinct yet comparative living relative of the giraffe, Harry Johnston's 'discovery' of the okapi was viewed as 'one of the most exciting events in the history of modern mammalogy'. Chapter 5 interrogated this narrative, readdressing the so-called lost and found claimed and named case of the okapi 'discovery'. Although Johnston certainly played a part, he was not the only person involved in this encounter. The determinants of the okapi's western discovery stemmed from a number of different factors and loci, integrating zoologists, taxidermists, illustrators, and other invisible technicians in the processes of encountering, classifying, and obtaining okapi specimens. No longer merely skin and bones, okapis have since become a staple part of many zoo collections, as well as a prominent emblem of the Congo.

The animals discussed in each chapter represent only a fraction of the inhabitants exhibited at London Zoo during the nineteenth century, but their stories speak to the global span of animals displayed in the gardens' of the Zoological Society of London. The ZSL, the oldest zoological society in the world, continues to display animals and create an understanding of nature, which, for better or worse, is still a popular destination for families and those desirous of killing time. The relative austerity of the Victorian period may be over, but even today, almost 200 years since the Society was first formed, the essential character of the modern zoo lives on; the zoo continues to offer a new respect for and understanding of the natural world.

Appendix I: List of ZSL Officers and Staff¹

Presidents

Sir Stamford Raffles – 1826 The Marquess of Lansdowne – 1827 Lord Stanley (later 13th Earl of Derby) – 1831 Prince Albert – 1851 Rt Hon. Sir George Clark – 1862 Viscount Walden (later the Marquess of Tweeddale) – 1868 Sir William Henry Flower – 1879 Duke of Bedford – 1899

Secretaries

Nicholas Aylward Vigors – 1826 Edward T. Bennett – 1833 William Yarrell – 1836 The Rev. John Barlow – 1838 William Ogilby – 1840 David William Mitchell – 1847 Philip Lutley Sclater – 1859 William Lutley Sclater – 1903 Peter Chalmers Mitchell – 1903

Superintendents

Alexander Miller – 1829 John Thompson – 1852 Abraham Dee Bartlett – 1859 Clarence Bartlett – 1897 William Edward de Winton – 1903

Prosectors

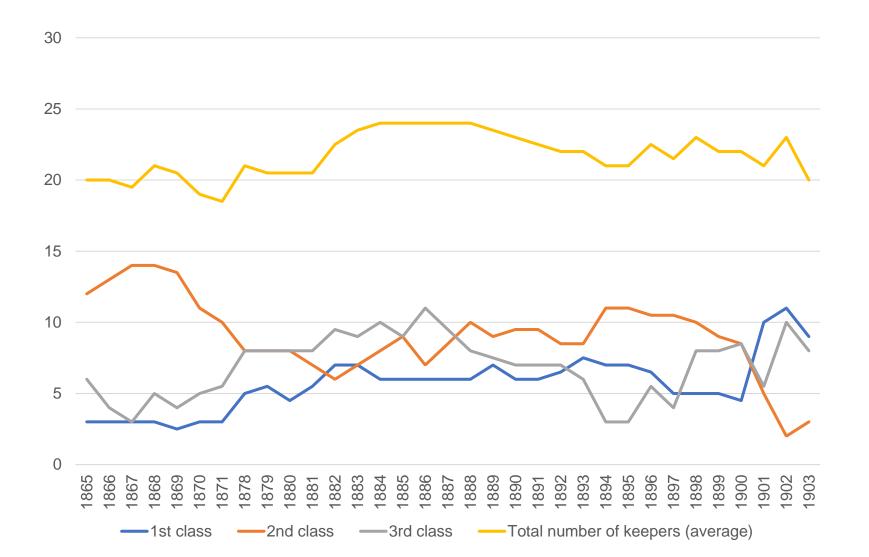
James Murie – 1865 Alfred Henry Garrod – 1871 William Alexander Forbes – 1879 W. R. F. Weldon (Interim Prosector) – 1883 Frank Evers Beddard – 1884

Head Keepers

Devereux Fuller – 1827 Henry Hunt – 1847 James Thomson – 1859 Benjamin Misselbrook – 1869 Arthur Thomson – 1889

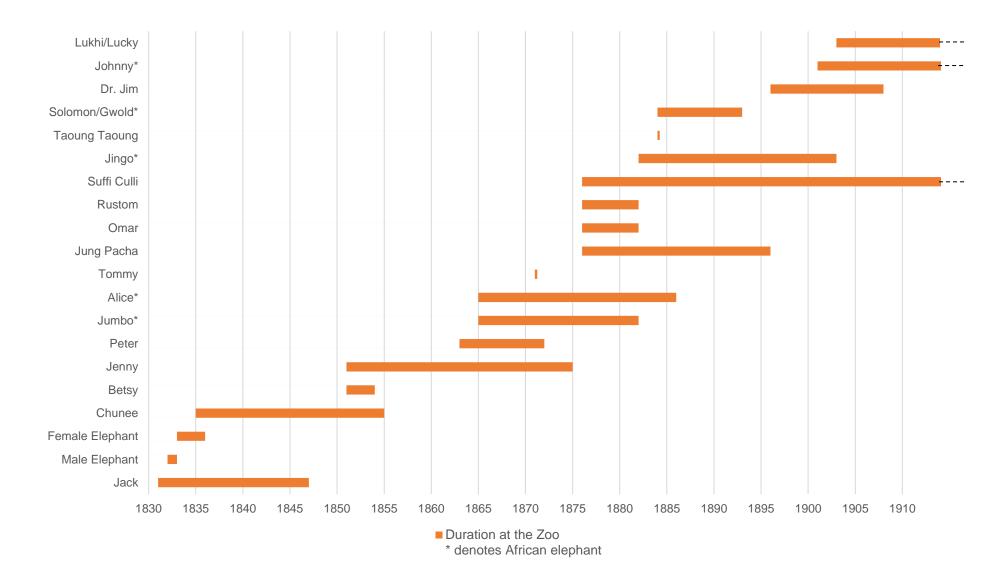
¹ Sourced from N. Murray, Lives of the Zoo: Charismatic Animals in the Social Worlds of the Zoological Gardens of London, 1850-1897' (Unpublished PhD Thesis: Indiana University, 2004), p. 298; P. C. Mitchell, *A Centenary History of the Zoological Society of London* (London: Printed for the Society, 1929), frontispiece chart; Scherren, H., *The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library* (London: Cassell & Co, 1905), pp. 80, 104, 27, 76, 202.

Appendix II: Chart of Zookeepers Employed by ZSL, 1865-1903 (excluding 1872-78)





Appendix III: Elephants at London Zoo during the Nineteenth Century



Bibliography

Unpublished Primary Sources

Buckinghamshire, Buckinghamshire Archives	
Parish Register Transcripts – Chalfont St Peter, 1760-18	830 [D-A/T]
City of Westminster Archive	
Zoological Gardens, Regent's Park/St Marylebone	[T136.3]
Historic England Archive	
York and Son Collection	[YOR01]
Lambeth Library and Archive	
Diaries of Henrietta Thornhill	[IV/81]
Linnean Society of London Archive	
Certificates of Recommendation	[CR]
Society Papers	[SP]
The Zoological Club of the Linnean Society of London	[ZC]
London Metropolitan Archive	
General Series: Saint Marylebone	[SC/PZ/SM]
London Boroughs Box [S	SC/GL/PR/M/REG]
Whitehouse Family Collection	[ACC/1742]
Natural History Museum Archive	
Mammal Section Correspondence	[DF]
Alfred Russell Wallace: Miscellaneous Photographs and other Images	[WP/17]
Royal Archives – Royal Collection Trust	
Queen Victoria Journals	[Online Resource]

Victorian Watercolours Collection	[RCIN]
Stanford University Libraries	
The Barry Lawrence Ruderman Map Collection	[Online Resource]
The National Archives	
Colonial Office and Predecessors	[CO]
Foreign Office: Confidential Print Africa	[FO 403]
Records of the Copyright Office, Stationers Company	[COPY]
Records of the Successive Works Department	[WORK]

Zoological Society of London Archives

GB/0814/AAA BADB	Charters and Byelaws of the ZSL 1829-1996 Samuel White Baker Papers Phileas Taylor Barnum Papers Abraham Dee Bartlett Papers Clarence Bartlett Papers Frederic Brine Papers William Spiers Bruce Papers Frederick Adolphus Wright-Bruce Papers John Samuel Budgett Papers H. Byng Papers
BADC	Hamet Saffi Canaana Papers Benjamin Clark Papers Percy Zachariah Cox Papers
BADD	J. J. Davis Papers Frederick Dixon Papers Sir William Turner Thiselton Dyer Papers
BADE	Fleetwood J. Edwards Papers Elder Dampster & Co Papers Benjamin Hill Evans Papers James Cossar Ewart Papers
BADG	Frederick Graham Papers The Graphic Papers John Gould Papers
BADI	Bruce S. Ingram Papers

BADJ	Frederick John Jackson Papers Hartmann W. Just Papers
BADK	Field Marshall Horatio Herbert Kitchener, 1 st Earl Kitchener, Papers
BADL	Edwin Ray Lankester Papers John George Edward Henry Douglas Sunderland Campbell, Marquess of Lorne Papers
BADM	Admiral Sir George Rodney Mundy Papers Rajendra Mullick Papers Charles Adolphus Murray Papers
BADN	Lord Francis Napier Papers
BADO	William Hillier Onslow, 4th Earl of Onslow Papers
BADP	Joseph Charlton Parr Papers
	Eliza Adelaide Pocklington Papers
5450	Wyndham Spencer Portal Papers
BADS	Robert Falcon Scott Papers
BADT	James Thompson Papers
BADW	H. Windhorn Papers
BDAA EAA	Returns and Reports etc. 1833-1951 ZSL General Meetings 1826-2014
EBA	The Zoological Dinning Club 1866-2003
FAA	ZSL Council 1826-2019
GAAB	Secretary's Reports of the Zoological Society of
ON WE	London 1851-1854
GAAE	Report of the Special Committee appointed by the
-	Council 1848
GAAF	Band and Exhibition Committee Report 1848
GAAW	Reports of the Committee of Receipt and
	Expenditure 1843-50
GABA	Queen's Bench vs ZSL court case 1854
GABL	Davis Lecture Leaflets
GABJ	List of Works in the Keeper's Library 1844
GACP	Press Cuttings from The Illustrated London News
HCAA	ZSL and London Zoo Press Cuttings Books
KCB	Manuscript Notes for a History of ZSL 1929-1969
MAA	Scientific Meetings 1830-1989
PAA	London Zoo and Whipsnade Committees 1843-1987
RAAC	Prosector Reports 1865-1868
RBA	Prosectorial Committee 1865-1961
RCA	Registers of Deaths in the Menagerie
QAA ZIA	Daily Occurrences & Other Occurrences 1828-2002 Song Sheets - 19 th Century
	Song Sheets - 19 Century

ZSL Official Publications:

Proceedings of the Zoological Society of London - PZS

Reports of Council - RoC

Transactions of the Zoological Society of London - TZS

ZSL Guidebooks (in chronological order):

Anon., *The Zoological Gardens, Regent's Park - A Handbook for Visitors* (London: R. Tyas, 1838).

D. W. Mitchell, A Popular Guide to the Gardens of the Zoological Society of London (London: Zoological Society, 1852).

[D. W. Mitchell] *The Zoological Gardens: A Description of The Gardens and Menageries of the Zoological Society – A Hand-book Guide for Visitors* (London: H. G. Clarke, 1853).

[D. W. Mitchell] *The Zoological Gardens: A Description of the Gardens and Menageries of the Royal Zoological Society – A Handbook Guide for Visitors* (London: H. G. Clarke, 1855).

D. W. Mitchell, *Guide to the Gardens of the Zoological Society of London* (London: Bradbury & Evans, 1858).

P. L. Sclater, *Guide to the Gardens of The Zoological Society of London* (London: Bradbury & Evans, 1866).

P. L. Sclater, *Guide to the Gardens of the Zoological Society of London*, 22nd *Edition* (London: Bradbury & Evans, 1869).

P. L. Sclater, *Guide to the Gardens of the Zoological Society of London, 29th Edition* (London: A. Bradbury, 1875).

Published Primary Sources

'The Uganda Protectorate, Ruwenzori, and the Semliki Forest: Discussion by H. M. Stanley, J. E. S. Moore and Bowdler Sharpe', *The Geographical Journal*, Vol. 19, No. 1 (Jan., 1902), pp. 39-51.

'Visits to the Zoological Gardens. No. II', True Briton, Vol. I (1851), p. 17.

⁽XXII - Zig-Zag Saurian', in *The Strand Magazine, An Illustrated Monthly, Vol. VII January to June*, ed. G. Newnes (London: G. Newnes, 1894), pp. 374-382.

A Birds Eye View of the Zoological Gardens, Regent's Park (London: H. G. Clarke, 1854).

A Catalogue of all Graduates in Divinity, Law, Medicine, Arts and Music, who have Regularly Proceeded or been Created in the University of Oxford, between October 10, 1659, and December 31, 1850 (Oxford: OUP, 1851).

A Day at the Zoo, illus. E. B. S. Montefiore (London: T. Nelson & Sons, 1901).

Anon. Popular Description and History of the Giraffe (London: 1836).

Anon., 'A Glance at the Zoological Gardens in 1852', *Bentley's Miscellany: Vol. XXXI* (London: R. Bentley, 1852), pp. 622-628.

Anon., 'Monthly General Meeting of the Zoological Society – February 1851', *The Zoologist: A Popular Miscellany of Natural History* – *Vol. 9*, ed. E. Newman, (London: J. Van Voorst, 1851), pp. 3067-3068.

Anon., 'Proceedings of the Zoological Society – December 1851', *The Zoologist: A Popular Miscellany of Natural History* – *Vol. 10*, ed. E. Newman, (London: J. Van Voorst, 1852), pp. 3335-3336.

Anon., 'Scientific Notes', *Scientific American*, Vol. 56, Iss. 1447 (Sept. 26, 1903), p. 215.

Anon., 'The Rise and Progress of the Zoological Society', *Nature*, Vol. 74 (1906), pp. 129-130.

Anon., A Visit to the Zoological Gardens, or Something about Animals (London: Dean & Son, 1876).

Anon., *Agricultural Journal of the Cape of Good Hope*, Vol. 10, No. 4, (February, 1897), p. 222.

Anon., All the Fun of the Zoo for One Shilling (London: G. Newnes, 1895).

Bartlett, A. D., *Bartlett's Life Among Wild Beasts in the 'Zoo'* (London: Chapman & Hall, 1900).

Bartlett, A. D., Wild Animals in Captivity (London: Chapman, 1899).

Beddard, F. E., 'The Okapi: The New Quadruped from Central Africa', *Pall Mall Magazine*, Vol. 24, Iss. 100 (1901-1908), pp. 569-570.

Beddard, F. E., *Natural History in Zoological Gardens* (London: A. Constable, 1905).

Bennett, E. T., *The Gardens and Menagerie of the Zoological Society Delineated: Quadrupeds, Vol. I.* (London: C. Whittingham, 1830).

Bolton, G., *All About Animals, for Old and Young: Popular, Interesting, Amusing* (London: G. Newnes, 1897).

Boulger, D. C., The Life of Sir Stamford Raffles (London: H. Marshall, 1897).

Braddon, E., Thirty Years of Shikar (London: Blackwood, 1895).

Brisson, M. J., *Regnum Animale: In classes IX Distributum* (Lugduni Batavorum, Apud Theodorum Haak, 1762).

British Parliamentary Papers, Correspondence relating to the Outbreak of Rinderpest in South Africa in March 1896 (c.8141), lix, 1896, p. 51.

Brünnich, M. T., *Brünnichii Zoologiae fundamenta Praelectionibus Academicis Accommodata: Grunde I Dyrelaeren* (Hadnioe et Lipsioe, 1772).

Cana, F. R. & A. Sharpe, 'Obituary: Sir Harry H. Johnston, G. C. M. G., K. C. B.', *The Geographical Journal*, Vol. 70, No. 4 (Oct. 1927), pp. 414-416.

Carroll, C. C., *The Government's Importation of Camels: A Historical Sketch* (Washington: Government Printing Office, 1904).

Chatterjee, D., A Short Sketch of Rajah Rajendro Mullick Bahadur and His Family (Calcutta: Marble Palace, 1917).

Christy, C., *Big Game and Pygmies: Experiences of a Naturalist in Central African Forests in Quest of the Okapi* (London: MacMillan, 1924).

Colbert, E. H., 'The Relationships of the Okapi', *Journal of Mammalogy*, Vol. 19, No. 1 (Feb. 1938), pp. 47-64.

Cornish, C., *Wild Animals in Captivity: Or, Orpheus at the Zoo and Other Papers* (New York: MacMillan, 1894).

Cornish, C., *Sir William Henry Flower: A Personal Memoir* (London: Macmillan, 1904).

Cornish, J., *Life at The Zoo; Notes and Traditions of the Regent's Park Gardens* (London: Seeley, 1895).

Darwin, C., *Expression of the Emotions in Man and Animals* (New York: D. Appleton, 1897).

Dasa, N. L., *Reminiscences, English and Australasian: Being an Account of a Visit to England, Australia, New Zealand, Tasmania, Ceylon* (Calcutta: M. C. Bhowmick, 1893).

De Rothschild, M. & H. Neuville, 'Recherches sur L'Okapi et les girafes de l'est African – Primière Partie', *Annales des Sciences Naturelles - Zoologie*, Ser. 9, Tome 10 (1909), pp. 1-93.

De Rothschild, M. & H. Neuville, 'Recherches sur L'Okapi et les girafes de l'est African – Seconde Partie', *Annales des Sciences Naturelles - Zoologie*, Ser. 9, Tome 13 (1911), pp. 1-186.

Dickens, C., 'The Hippopotamus', *Household Words: A Weekly Journal – Vol. I March-September 1850* (London: Bradley & Evans, 1850) pp. 445-449.

Dickens, C., 'The "Good" Hippopotamus', *Household Words: A Weekly Journal* – *Vol. II September-March 1850-1851* (London: Bradley & Evans, 1850), p. 49.

Dickens, C., 'The Tresses of the Day Star', *Household Words: A Weekly Journal – Volume III March 29 to September 20* (London: Bradbury & Evans, 1851), pp. 289-291.

Dickinson's Comprehensive Pictures of the Great Exhibition of 1851 (London: Dickinson Bros., 1854).

Dutt, R. C., *Three Years in Europe 1868 to 1871: With an Account of Subsequent Visits to Europe in 1886 and 1893* (Calcutta: S. K. Lahri, 1896).

Falconer, H., 'On Some Fossil Remains of Anoplotherium and Giraffe, from the Sewalik Hills, in the north of India', *Proceedings of the Geological Society of London*, Vol. IV, Part II, 1843-1844, No. 98 (1844), pp. 235-249.

Forbes, E., On the Educational Uses of Museums (Being the Introductory Lecture of the Session 1853-1854) (London: Longmans, 1853).

Fraipont, H. J., 'Monographie d'Okapi - Contributions a La Faune Du Congo, Okapia', *Annales du Musée du Congo*, Ser. II, Vol. I (Bruxelles: 1907), pp. 5-118.

Gray, G. R., *The Genera of Birds: Comprising Their Generic Characters, A Notice of the Habits of Each Genus, and An Extensive List of Species* (London: Longman, 1849).

Hagenbeck, C., *Beasts and Men, being Carl Hagenbeck's Experiences for Half a Century Among Wild Animals* (London: Longmans, 1912).

Haney's Art of Training Animals: a Practical Guide for Amateur or Professional Trainers (New York: J. Hanley, 1869).

Heck, L., Living Pictures of The Animal World: A Rare and Most Unique Collection of Exquisite Photographs from Living Specimens Only (London: C, Taylor, 1899).

Jackson, F. G. & Others, "Three Years' Exploration in Franz Josef Land', *The Geographical Journal*, Vol. 11, No. 2 (1898), pp. 113-138.

Johnston, H. H., 'A Monograph of the Okapi', *Nature*, Vol. 85 (1910), pp. 209-211.

Johnston, H. H., 'Major Delmé Radcliffe's Map of the Nile Province of the Uganda Protectorate', *The Geographical Journal*, Vol. 21, No. 2 (1903), pp. 162-164.

Kearton, R., 'The Zoological Gardens' in, *In Living London: Its Work and Its Play, Its Humour and Its Pathos, Its Sights and Its Scenes*, ed. George Simms, Vol. 1, Sec. 2 (London: Cassell, 1901), pp. 344–50.

Lankester, E. R., 'The Specific Name of the Okapi presented by Sir Harry Johnston to the British Museum', *The Ann. & Mag. Natural History*, Vol. X, Ser. 7 (1902), p. 417.

Lankester, E. R., *Degeneration: A Chapter in Darwinism and Parthenogenesis* (New York: Humboldt Co., 1892).

Lankester, R., 'The Okapi Monograph', Nature, Vol. 78 (1908), pp. 66-67.

Legge, E., 'A German 'Zoo'', *Belgravia: A London Magazine*, Vol. 3 (May, 1874), pp. 353-357.

Leland, C. G., *Hans Breitmann in Politics: A Second Series of the Breitmann Ballads* (London: J. C. Hotten, 1869).

Lydekker, R., 'On Hornless Okapis', *Journal of Natural History*, Vol. 6, No. 32 (1910), pp. 224-226.

Lydekker, R., 'The Giraffe and its Allies', Nature, Vol. 44 (1891), pp. 524-526.

Lydekker, R., The Game Animals of Africa (London: R. Ward, 1908).

MacDonald, A. J., *Trade Politics and Christianity in Africa and the East* (London: Greens, 1916).

Major, C. J. F., 'Ueber Okapi', in *Verhandlungen des V. Internationalen Zoologen-Congresses zu Berlin 12-16 August 1901* (Jena: Verlag Von Gustav Fischer, 1902), pp. 1056-1057.

Martin, W. C. L., A General History of the Humming Birds, or Trochilidae – with especial reference to the Collection of J. Gould now Exhibiting in the Gardens of the Zoological Society of London (London: H. G. Bohn, 1852).

Maxwell, H., *The Honourable Charles Murray KCB: A Memoir* (Edinburgh: W. Blackwood, 1898).

Monteith, J., *Familiar Animals and Their Wild Kindred*, (New York: Van Antwerp, 1887).

Morrison, A., *Zig-Zag at the Zoo: Penned by A. Morrison & Pencilled by J. A. Shepherd* (London: G. Newnes, 1895).

Neale, F. A., *Narrative of a Residence at the Capital of the Kingdom of Siam: With a Description of the Manners, Customs, and Laws of the Modern Siamese* (London: Office of the National Illustrated Library, 1852).

Northrop, H. D., *Earth, Sea and Sky: Or the Marvels of the Universe* (New Brunswick: R. A. H. Morrow, 1887).

Palmer, A. H., *The Life of Joseph Wolf, Animal Painter* (London: Longmans, 1895).

Phillipps-Wolley, C., Big Game Shooting (London: Longmans, 1894).

Pocock, C. I., *Highways and Byways of the Zoological Gardens* (London: Adam & Charles Black, 1913).

R. E. M, 'Obituary – W. L. Sclater', *Journal of the East African Natural History Society*, Vol. XIX, (1946), p. 73.

R. L., 'The Book of Antelopes', Nature, Vol. 63 (1901), pp. 509-510.

Raffles, S., Memoir of the Life and Public Service of Sir Stamford Raffles, Particularly in the Government of Java, 1811-1816 and of Bencoolen and its Dependencies, 1817-1824 (London: J. Murray, 1830).

Reeves, L., Letter to the Right Honourable the Earl of Derby, K.G., D.C.L., On the Management, Character, and Progress of the Zoological Society of London (London: 1846).

Russell, W. H., *Prince of Wales Tour: A Diary in India, with some account of the Visits of his Royal Highness to the Courts of Greece, Egypt, Spain, and Portugal* (London: Sampson Low, 1877).

Sanderson, G. P., 'The Asiatic Elephant in Freedom and Captivity', *Journal of the Society of Arts*, Vol. 32 (Nov., 23, 1883), pp. 410-421.

Scherren, H., The Zoological Society of London: A Sketch of its Foundation and Development, and the Story of its Farm, Museum, Gardens, Menagerie and Library (London: Cassell & Co, 1905).

Scherren, H., *Walks and Talks in the Zoo* (London: Religious Tract Society, 1900).

Sclater, P. L. & O. Thomas, *The Book of Antelopes, Vols I-IV* (London: R. H. Porter, 1899-1900).

Sclater, P. L., 'A Skull and Strip of the Newly Discovered African Mammal *(Okapia Johnstoni)*', in *Verhandlungen des V. Internationalen Zoologen-Congresses zu Berlin 12-16 August 1901* (Jena, Verlag Von Gustav Fischer, 1902), pp. 546-547.

Sclater, P. L., A Record of Progress of the Zoological Society of London during the Nineteenth Century (London: W, Clowes, 1901).

Scott, M., Autobiography of Mathew Scott: Jumbo's Keeper, formerly of the Zoological Society's Gardens, London, and Receiver of Sir Edwin Landseer Medal in 1866 – Also Jumbo's Biography by the same author (New York: Trow's Printing Co, 1885).

Sharpe, R. B., *An Analytical Index to the Works of the Late John Gould* (London: H. Sotheran, 1893).

Special Report on Rinderpest in South Africa March 1896-February 1897 (London: H.M.S.O., 1896).

Stanley, H. M., In Darkest Africa: Or the Quest Rescue and Retreat of Emin Governor of Equatoria - In Two Volumes, Vol. II (London: Sampson Low, 1890).

Swainson, W., A Preliminary Discourse on the Study of Natural History (London: Longman, 1834).

Swainson, W., Animals in Menageries (London: Longman, 1838).

The Charter, By-Law and Regulations of the Zoological Society of London (London: Taylor & Francis, 1829).

The Children's Friend - A Monthly Magazine for Boys & Girls, Vol. XXXIX, Jan-Dec 1899 (London: S.W. Partridge, 1899).

The Collected Letters of Sir Humphrey Davy, Vol. 3: 1817-1826, ed. T. Fulford & S. Ruston (Oxford: OUP, 2021).

The Life and Letters of Charles Darwin, including an Autobiographical Chapter: Vol 1, ed. F. Darwin (London: J. Murray, 1887).

The Quarterly Review: December 1855–March 1856, Vol. 98, Iss. 195-196 (London: J. Murray, 1856).

The Strand Magazine, An Illustrated Monthly, Vol. IV July to December, ed. Geo. Newnes (London: G. Newnes, 1892).

Thomson, J., *To the Central African Lakes and Back: Vol. 1* (London: Sampson, 1881).

Transactions of the Natural History and Antiquarian Society of Penzance, Established in 1839, Vol. 1 – 1845-1850 (Penzance: F. T. Vibert, 1851).

Tuck, R., In the Jungle (London: R. Tuck & Sons, 1900).

Vincent, F., *The Land of the White Elephant: Sights and Scenes in South-Eastern Asia* (London: Sampson, 1873).

William of Malmesbury, *De Gestis Regum Anglorum*, ed. W. Stubbs, 2 Vols. (Royal Society: 1887-1889).

Winston, W. R., Four Years in Upper Burma (London: C. H. Kelly, 1892).

Yarrell, W., A History of British Birds: Vol. 3 (London: J. Van Voorst, 1843).

Newspapers & Periodicals

Essays and Articles (as noted individually in footnotes) from the following

magazines and journals:

Aberdeen Press and Journal	Liverpool Weekly Courier	
Athenaeum	Lloyd's Weekly Newspaper	
Atlas	London Evening Standard	
Buxton Herald and Gazette of	Mid-Lothian Journal	
Fashion Cheltenham Examiner	Mirror of Literature, Amusement and Instruction	
Cheshire Observer	Morning Chronicle	
Daily News	News of the World	
Daily Record	Paisley and Renfrewshire Gazette	
Daily Telegraph and Courier	Pall Mall Gazette	
Dublin Evening Telegraph	Penny Illustrated Paper	
Dundee Courier	Punch or the London Charivari	
Dundee Evening Telegraph	Second Sheet of the Hereford Times	
Eastern Morning News	Sheffield Daily Telegraph	
Eastern Province Herald	Sheffield Weekly Telegraph	
Edinburgh Evening News	South Wales Echo	
Evesham Standard & West Midland	St. James's Gazette	
Observer	Sunday Mirror	
Field	The American Register	
Freeman's Exmouth Journal	The Beverley Recorder and General	
Hampshire Telegraph	Advertiser	
Illustrated London News	The Birmingham Daily Gazette	
Illustrated Police News	The Buckingham Advertiser and	
Illustrated Sporting and Dramatic News	Free Press The Chard and Ilminster News	
Lancashire Evening Post	The Croydon Express & Norwood, Penge, & Mitcham Mercury The Daily Mail	
Lincolnshire Echo		
Literary Gazette		

The Eastern Evening News	The New York Times
The Echo	The People
The Globe	The Photographic Journal
The Graphic	The Sketch
The Illustrated Sporting and	The Sphere
Dramatic News	The Sportsman
The Illustrated Weekly News	Penny Magazine
The Kentish Independent	The Times
The Kilburn Times, Hampstead and North Western Press	Truth
The London Evening Standard	Wells Journal
The Morning Advertiser	West London Observer
The Morning Herald	Worcester Herald
The Morning Post	Yorkshire Post and Leeds Intelligencer

Secondary Sources

Adams, W. M., 'Nature and the Colonial Mind', in *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era*, ed. W. M. Adams & M. Mulligan (Abingdon: Earthscan, 2003), pp. 16-50.

Agassi, J., Science and its History: A Reassessment of the Historiography of Science (Boston: Springer, 2008).

Akena, F. A., 'Critical analysis of the Production of Western Knowledge and Its Implications for Indigenous Knowledge and Decolonisation', *Journal of Black Studies*, Vol. 43, No. 6 (2012), pp. 599-619.

Åkerberg, S., *Knowledge and Pleasure at Regent's Park: The Gardens of the Zoological Society of London During the Nineteenth Century* (Umeå: Umeå universitets tryckeri, 2001).

Alberti, J. M. M., 'Introduction: The Dead Ark', in *The Afterlives of Animals: A Museum Menagerie* (Charlottesville: University of Virginia Press, 2011), pp. 1-16.

Alberti, S. J. M. M., 'Maharajah the Elephant's Journey From Nature to Culture', in *The Afterlives of Animals: A Museum Menagerie*, ed. S. J. M. M. Alberti (Charlottesville: Virginia University Press, 2011), pp. 37-57.

Alberti, S. J. M. M., 'The Museum Affect: Visiting Collections of Anatomy and Natural History', in *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, ed. A. Fyfe & B. Lightman (Chicago: Chicago University Press, 2007), pp. 371-403.

Aldrich, R. & C. McCreedy, 'European Sovereigns and Their Empires 'Beyond the Seas'', in *Crowns and Colonies: European Monarchies and Overseas Empires* ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 1-26.

Allen, D. E., 'Amateurs and Professionals', in *The Cambridge History of Science, Vol. 6: The Modern Biological and Earth Sciences*, ed. P. J. Bowler (Cambridge: CUP, 2009), pp. 15-33.

Allen, D. E., 'The Women Members of the Botanical Society of London, 1836-1856', *The British Journal for the History of Science*, Vol. 13, No. 45 (1980), pp. 240-254.

Allen, D. E., *The Naturalist in Britain: A Social History* (Princeton: Princeton University Press, 1994).

Amato, S., 'The White Elephant in London: An Episode of Trickery, Racism and Advertising', *Journal of Social History*, Vol. 43, No. 1 (Fall, 2009), pp. 31-66.

Amato, S., *Beastly Possessions: Animals in Victorian Consumer Culture* (Toronto: University of Toronto Press, 2015).

Ammer, C., *The American Heritage Dictionary and Idioms: American English Idiomatic Expressions & Phrases* (New York: Houghton Mufflin, 2013).

Anderson, K., 'Culture and Nature at the Adelaide Zoo: At the Frontiers of 'Human' Geography', *Transactions of the Institute of British Geographers*, Vol. 20, No. 3 (1995), pp. 1-30.

Arnold, D., 'A Family Affair: Decimus Burton's Designs for the Regent's Park Villas', in *The Georgian Villa*, ed. D. Arnold (Stroud: A. Sutton, 1996), pp. 105-117.

Arnold, D., Reading Architectural History (London: Routledge, 2002).

Auerbach, J. A., *Imperial Boredom: Monotony and the British Empire* (Oxford: OUP, 2018).

Auerbach, J. A., *The Great Exhibition of 1851: A Nation on Display* (Yale: Yale University Press, 1999).

Ballantyne, T., 'Race and the Webs of Empire: Aryanism From India to the Pacific', *Journal of Colonialism and Colonial History*, Vol. 2, No. 3 (2001), pp. 1–36.

Ballantyne, T., *Webs of Empire: Locating New Zealand's Colonial Past* (Toronto: UBC Press, 2012).

Baratay, E. & E. Hardouin-Fugier, *Zoo: A History of Zoological Gardens in the West* (London: Reaktion Book, 2002).

Baratay, E., Biographies Animales: Des Vies Retrouvées (Paris: Seuil, 2017).

Barczewski, S., 'Introduction: The 'MacKenzian Moment' Past and Present', in *The MacKenzie Moment and Imperial History: Essays in Honour of John M. MacKenzie*, ed. S. Barczewski & M. Farr (London: Palgrave, 2019), pp. 3-14.

Barnard, T. P., *Imperial Creatures: Humans and Other Animals in Colonial Singapore, 1819-1942* (Singapore: NUS Press, 2019).

Barnhardt, R. & A. O. Kawagley, 'Indigenous Knowledge Systems and Alaska Native Ways of Knowing', *Anthropology & Education Quarterly*, Vol. 36, No. 1 (2005), pp. 8-23.

Barrington-Johnson, J., *The Zoo: The Story of London Zoo* (London: R. Hale, 2005).

Bastin, J., 'Sir Stamford Raffles and the Study of Natural History in Penang, Singapore and Indonesia', *Journal of the Malaysian Branch of the Royal Asiatic Society*, Vol. 63, No. 2 (259), (1990), pp. 1-25.

Bastin, J., 'The First Prospectus of the Zoological Society of London: New Light on the Society's Origins', *Journal of the Bibliography of Natural History*, Vol. 5, No. 5 (1970), pp. 369-388.

Bastin, J., 'The Letters of Sir Stamford Raffles to Nathaniel Wallich 1819-1824', *Journal of the Malaysian Branch of the Royal Asiatic Society*, Vol. 54, No. 2 (240), (1981), pp. 1-73.

Beinart, W., 'Empire, Hunting and Ecological Change in Southern and Central Africa', *Past & Present*, Vol. 128 (April, 1990), pp. 162-186.

Beinart, W., K. Brown & D. Gilfoyle, 'Experts and Expertise in Colonial Africa Reconsidered: Science and the Interpretation of Knowledge, *African Affairs*, Vol. 18, No. 432, (2009), pp. 413-433.

Belknap, G., 'Illustrating Natural History: Images, Periodicals, and the Making of Nineteenth-Century Scientific Communities', *The British Journal for the History of Science*, Vol. 51, No. 3 (2018), pp. 395-422.

Bell, A. M., 'Animal Personalities', Nature, Vol. 447 (2007), pp. 539-540.

Bell, M. & C. McEwan, The Admission of Women Fellows to the Royal Geographical Society, 1892-1914: The Controversy and the Outcome', *The Geographical Journal*, Vol. 162, No. 3 (Nov. 1996), pp. 295-312.

Bender, D., *The Animal Game: Searching for Wildness at the American Zoo* (Cambridge, MA: Harvard University Press, 2017).

Bendini, S. A., *The Pope's Elephant: An Elephant Journey from Deep in India to the Heart of Rome* (London: Penguin, 2000).

Bennet, B. M., 'The Consolidation and Reconfiguration of 'British' Networks of Science, 1800-1970', in *Science and Empire: Knowledge and Networks of Science in the British Empire, 1800-1970*, eds. J. M. Hodge, and B. M. Bennet (New York: Palgrave MacMillan, 2011), pp. 30-44.

Berger, J., Why Look at Animals (London: Penguin books, 2009).

Berman, M., "Hegemony' and the Amateur Tradition in British Science', *Journal of Social History*, Vol. 8 (1974), pp. 30–50.

Bhattacharji, S., 'Indian Travel Writing', in *The Routledge Companion to Travel Writing*, ed. C. Thompson, (Oxford: Routledge, 2015), pp. 125-138.

Birke, L., G. Hosey & V. Melfi, "You can't Really Hug a Tiger": Zookeepers and Their Bonds with Animals', *Anthrozoös*, Vol. 32, No. 5 (2019), pp. 597-612.

Blanchard, P. & Others, 'Human Zoos: The Greatest Exotic Shows in the West', in *Human Zoos: Science and Spectacle in the Age of Colonial Empires*, ed. P. Blanchard & Others, trans. T. Bridgeman (Liverpool: LUP, 2008), pp. 1-49.

Blancou, J. & I. Parsonson, 'Historical perspectives on long distance transport of animals', *Veterinaria Italiana*, Vol. 44, No. 1 (2008), pp. 19-30.

Blouin, B. X., 'History and Memory: The Problem of the Archive', *Publications of the Modern Language Association of America*, Vol. 119, No. 2 (2004), pp. 296-298.

Blunt, W., *Ark in the Park: The Zoo in the Nineteenth Century* (London: Book Club Associates, 1976).

Bondeson, J., *The Feejee Mermaid and Other Essays in Natural and Unnatural History* (Ithaca: Cornell University Press, 1999).

Boomgaard, P., *Frontiers of Fear: Tigers and People in the Malay World, 1600-1950* (New Haven: Yale University Press, 2001).

Borg, A. C. N., 'The Royal Menagerie', in *The Tower of London: its Buildings and Institutions*, ed. J. Charlton (London: HMSO, 1978), pp. 100-101.

Bowler, P. J. & J. V. Pickstone, 'Introduction', in *The Cambridge History of Science, Vol. 6: The Modern Biological and Earth Sciences*, ed. P. J. Bowler (Cambridge: CUP, 2009), pp. 1-12.

Bowler, P. J., 'Development and Adaptation: Evolutionary Concepts in British Morphology, 1870–1914', *British Journal for the History of Science*, Vol. 22, Iss. 3 (Sept. 1989), pp. 283-297.

Bowler, P. J., 'Natural History and the Raj: Popular Wildlife Literature for Readers in Britain and the British Empire in India (1858-1947)', *Archives of Natural History*, Vol. 49, Iss. 1 (April 2022), pp. 189-203.

Bowler, P. J., *Evolution: The History of an Idea*, 3rd edition (Berkeley: California University Press, 2003).

Brantz, D., 'Introduction' in *Beastly Natures: Animals, Humans, and the Study of History* (Charlottesville: Virginia University Press, 2010), pp. 1-14.

Braverman, I., *Zooland: The Institution of Captivity* (Stanford: Stanford University Press, 2013).

Bridson, G. D. R., 'The Zoological Record – A Centenary Appraisal', *Journal of the Society for the Bibliography of Natural History*, Vol. 5, Iss. 1 (1968), pp. 23-34.

Bristow, J., *Empire Boys: Adventures in a Man's World* (London: Unwin Hyman, 1991).

Brock, W. H., 'Advancing Science: The British Association and the Professional Practice of Science' in *Parliament of Science: The British Association for the Advancement of Science 1831-1981*, eds. Roy M. McLeod and P.D.B. Collins (Northwood: Science Reviews, 1981), pp. 89-117.

Bruce, G., *Through the Lion Gate: A History of the Berlin Zoo* (Oxford: OUP, 2017).

Burbank, J. & F. Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton: Princeton University Press, 2007).

Burton, A., 'Introduction: On the Inadequacy and the Indispensability of the Nation', in *After the Imperial Turn: Thinking with and Through the Nation*, ed. A. Burton (Durham, NC: Duke University Press, 2003), pp. 1-23.

Buschmann, R. F., 'Oceans of World History: Delineating Aquacentric Notions in the Global Past', *History Compass*, Vol. 2, No. 1 (January 2004), pp. 1-10.

Caron, J. A., "Biology' in the Life Science: A Historiographical Contribution', *History of Science,* Vol. xxvi (1988), pp. 223-268.

Carpenter, D. A., 'King Henry III and the Tower of London', *The London Journal*, Vol. 19, No. 2. (1994), pp. 95-107.

Cayley, N. W., 'John Gould as an Illustrator', *Emu – Austral Ornithology*, Vol. 38, No. 2 (1938), pp. 167-172.

Chaiklin, M. & P. Gooding, 'Introduction: Investigating Animals, Their Products, and Their Trades in the Indian Ocean World' in *Animal Trading Histories in the Indian Ocean World*, ed. M. Chaiklin, P. Gooding & G. Campbell (London: Palgrave, 2020), pp. 1-26.

Chambers, P., *Jumbo: This Being the True Story of the Greatest Elephant in the World* (London: Steerforth, 2009).

Chowdhury-Sengupta, I., 'Mother India and Mother Victoria: Motherhood and Nationalism in Nineteenth Century Bengal', *South Asia Research*, Vol. 12, No. 1 (May, 1992), pp. 20-37.

Cohn, B. S., *Colonialism and Its Forms of Knowledge: The British in India* (Princeton: Princeton University Press, 1996).

Cole, M., 'From "Animal Machines" to "Happy Meat"? Foucault's Ideas of Disciplinary and Pastoral Power Applied to 'Animal-Centred' Welfare Discourse', *Animals*, Vol. 1, No. 1 (2011), pp. 81-101.

Cowie, H., 'A Tale of Two Anteaters: Madrid 1776 and London 1853', *Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 591-614.

Cowie, H., 'Elephants, Education and Entertainment: Travelling Menageries in Nineteenth-Century Britain', *Journal of the History of Collections*, Vol. 25, No. 1 (2013), pp. 103-117.

Cowie, H., 'Exhibiting Animals: Zoos, Menageries and Circuses', in *The Routledge Companion to Animal-Human History*, ed. H. Kean & P. Howell (London: Routledge, 2019), pp. 298-321.

Cowie, H., *Exhibiting Animals in Nineteenth Century Britain: Empathy, Education, Entertainment* (London: Palgrave, 2014).

Crouzet, G., *Inventing the Middle East: Britain and the Persian Gulf in the Age of Global Imperialism* (Montreal: McGill-Queen's University Press, 2022).

Dagg, A. I., 'Mammalian Species: *Giraffa camelopardalis*', *The American Society of Mammologists*, Vol. 5 (1971), pp. 1-8.

Davey, G., 'Visitor Behaviour in Zoos: A Review', *Anthrozoös*, Vol. 19, No. 2 (2006), pp. 143-157.

Deleuze, G. & F. Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987).

Desmond, A., 'Redefining the X Axis: 'Professionals,' 'Amateurs' and the Making of Mid-Victorian Biology', *Journal of the History of Biology*, Vol. 34 (2001), pp. 3-50.

Desmond, A., 'The Making of Institutional Zoology in London 1822-1836: Part I', *History of Science,* Vol. 23, No. 2 (1985), pp. 153-185.

Desmond, A., 'The Making of Institutional Zoology in London 1822-1836: Part II', *History of Science*, Vol. 23, No. 2 (1985), pp. 223-250.

Duarte, R. H., 'Between the National and the Universal: Natural History Networks in Latin America in Nineteenth and Twentieth Centuries, *Isis*, Vol. 104, No. 4 (2013), pp. 777-787.

Dubow, S., 'Introduction', in *Science and Society in Southern Africa*, ed. S. Dubow (Manchester: MUP, 2000), pp. 1-10.

Durbach, N., 'London, Capital of Exotic Exhibitions from 1830 to 1860', in *Human Zoos: Science and Spectacle in the Age of Colonial Empires*, ed. P. Blanchard & Others, trans. T. Bridgeman (Liverpool: LUP, 2008), pp. 81-94.

E. Hanson, *Animal Attractions: Nature on Display in American Zoos* (Princeton: Princeton University Press, 2002).

Edwards, J., *London Zoo: From Old Photographs 1852-1914*, 2nd edition (London: Butler & Tanner, 2012).

Edwards, M. A., 'The Library and Scientific Papers, Part II', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 251-267.

Elliott, P., 'The Derbyshire General Infirmary and the Derby Philosophers: The Application of Industrial Architecture and Technology to Medical Institutions in Early-Nineteenth-Century England', *Medical History*, Vol. 46 (2000), pp. 65-92.

Ellis, H., 'Knowledge, Character and Professionalisation in Nineteenth-Century British Science', in *Politics, Professionals and Practitioners*, ed. W. Robinson, R. Freathy, J. Doney (London: Routledge, 2017).

Fahmy, K., 'The Era of Muhammad 'Ali Pasha, 1805-1848', in *The Cambridge History of Egypt, Volume 2: Modern Egypt, from 1517 to the End of the Twentieth Century*, ed. M. W. Daly (Cambridge: CUP, 2008), pp. 139-179.

Farber, P. L., *Discovering Birds: The Emergence of Ornithology as a Scientific Discipline, 1760-1850* (Baltimore: JHUP, 1997).

Fish, R. & I. Montagu, 'The Zoological Society and The British Overseas', in *The Zoological Society of London, 1826-1976 and Beyond*, ed. S. Zuckerman (London: Academic Press, 1976), pp. 17-48.

Fish, R., 'The Library and Scientific Publications of the Zoological Society of London: Part I', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40)*, ed. By S. Zuckerman (London: Academic Press, 1976), pp. 233-252.

Flack, A, J. P., "The Illustrious Stranger": Hippomania and the Nature of the Exotic', *Anthrozoös*, Vol. 26, No. 1 (2013), pp. 43-59.

Flack, A. J. P. & S. J. Maddeaux, "Ask of the Beasts and They shall Teach Thee": Animal Representations in Bristol Zoo Guidebooks', *Society & Animals*, Vol. 26, Iss. 1 (2018), pp. 54-72.

Flack, A., *The Wild Within: Histories of a Landmark British Zoo* (Charlottesville: University of Virginia Press, 2018).

Fletcher, H. R., *The Story of the Royal Horticultural Society, 1804-1968* (Oxford: OUP, 1969).

Forgan, S., 'The Architecture of Display: Museums, Universities and Objects in Nineteenth-Century Britain', *History of Science*, Vol. 32, No. 2 (1994), pp. 139-162.

Foucault, M., *The Birth of the Clinic: An Archaeology of Medical Perception* (London: Tavistock, 1973).

Fournier, A. K. & others, 'The Human–Animal Interaction Scale: Development and Evaluation', *Anthrozoös*, Vol. 29, No. 3 (2016), pp. 455-467.

Fudge, E., 'A Left-Hand Blow: Writing the History of Animals', in *Representing Animals*, ed. N. Rothfels (Indianapolis: Indiana University Press, 2002), pp. 3-18.

Gane, N., 'When We have Never Been Human, What is to be Done? Interview with Donna Haraway', *Theory, Culture, & Society*, Vol. 23, No. 7-8 (2006), pp. 135-158.

Gascoigne, J., 'Science and the British Empire from its Beginnings to 1850', in *Science and Empire: Knowledge and Networks of Science Across the British Empire*, ed. B. M. Bennett & J. M. Hodge (London: Palgrave, 2011), pp. 47-67.

Gascoigne, J., Science in the Service of Empire: Joseph Banks, the British State and Use of Science in the Age of Revolution (Cambridge: CUP, 1998).

Gates, B. T., 'Introduction: Why Victorian Natural History?', *Victorian Literature and Culture*, Vol. 35 (2007), pp. 539-549.

Gilmour, J., *The British in India: Three Centuries of Ambition and Experience* (London: Penguin, 2018).

Ginn, F., 'Sticky Lives: Slugs, Detachment and More-than-human Ethics in the Garden', *Transactions of the Institute of British Geographers*, Vol. 39, No. 4 (2014), pp. 532-544.

Girling, R., *The Man who ate the Zoo: Frank Buckland Forgotten Hero of Natural History* (London: Chatto & Windus, 2016).

Gjersø, J. F., 'The Scramble for East Africa: British Motives Reconsidered, 1884–95', *Journal of Imperial and Commonwealth History*, Vol. 43, No. 5 (2015), pp. 831-860.

Glaiser, N., 'Networking: Trade and Exchange in the Eighteenth-Century British Empire', *Historical Journal*, Vol. 47. No. 2 (2004), pp. 451-476.

Gómez, P. F., 'The Circulation of Bodily Knowledge in the Seventeenth-Century Black Spanish Caribbean', *Social History of Medicine*, Vol. 26, No. 3 (2013), pp. 383–402.

Greenhalgh, P., *Ephemeral Vistas: The Expositions Universelles, Great Exhibitions and World's Fairs, 1851-1939* (Manchester: MUP, 1988).

Greenhouse, P. H., 'The Zoological Society and Ichthyology 1826-1930', in *The Zoological Society of London 1826-1976 and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40),* ed. By S. Zuckerman (London: Academic Press, 1976), pp. 85-104.

Griffiths, T., 'Bishop Alfred Tucker and the Establishment of a British Protectorate in Uganda 1890-94', *Journal of Religion in Africa*, Vol. XXXI (2001), pp. 92-114.

Grigson C., *Menagerie: The History of Exotic Animals in England* (Oxford: OUP, 2018).

Guillery, P., *The Buildings of London Zoo* (London: Royal Commission on the Historical Monuments of England, 1993).

Gunther, A. E., A Century of Zoology at the British Museum Through the Lives of Two Keepers, 1815–1914 (Folkestone: Dawson, 1975).

Hahn, H. H., 'Indian Princes, Dancing Girls and Tigers: The Prince of Wales's Tour of India and Ceylon, 1875-1876', *Postcolonial Studies*, Vol. 12, No. 2 (2009), pp. 173-192.

Hall, C., "From Greenland's Icy Mountains ... to Africa's Golden Sand": Ethnicity, Race and Nation in Mid-Nineteenth Century England', *Gender & History*, Vol. 5, No. 2 (1993), pp. 212–30.

Hall, C., *White, Male and Middle Class: Explorations in Feminism and History* (Cambridge: Blackwell Publishers, 1992).

Hall, J. R., 'Encountering Snakes in Early Victorian London: The First Reptile House at the Zoological Gardens', *History of Science*, Vol. 53, No. 3 (2015), pp. 338-361.

Hansard: Parliamentary Debates 1st-4th Series, 1803-1908 (London: 1803-1908).

Haraway, D., 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives', *Feminist Studies*, Vol. 14, No. 3 (Autumn, 1988), pp. 575-599.

Haraway, D., *When Species Meet* (Minneapolis: University of Minnesota Press, 2008).

Harding, L., *Elephant Story: Jumbo and P. T. Barnum Under the Big Top* (Jefferson: McFarland, 2000).

Harding, S., *The Science Question in Feminism* (Ithaca: Cornell University Press 1986).

Hareven, T. K., 'The History of the Family and the Complexity of Social Change', *The American Historical Review*, Vol. 96, No. 1 (Feb., 1991), pp. 95-124.

Hareven, T. K., *Families, History, and Social Change: Life Course and Cross-Cultural Perspectives* (London: Routledge, 2018).

Heath, D., 'Bureaucracy, Power and Violence in Colonial India', in *Empires and Bureaucracy from Late Antiquity to the Twentieth Century*, ed. P. Crooks & T. H. Parsons (Cambridge: CUP, 2016), pp. 364-390.

Heintzman, A., 'E is for Elephant: Jungle Animals in Late-Nineteenth Century British Picture Books', *Environmental History*, Vol. 19 (July 2014), pp. 553-563.

Hentschel, K., Unsichtbare Hände: Zur Rolle von Laborassistenten, Mechanikern, Zeichnern u. a. Amanuenses in der physikalischen Forschungsund Entwicklungsarbeit (Diepholz: GNT-Verlag, 2008).

Higginbotham, D., 'Women/Animals/Slaves: Race and Sexuality in Wycherley's *The Country Wife*' in *Early Modern Black Diaspora Studies: A Critical Anthology*, ed. C. L. Smith, N. R. Jones & M. P. Grier (London: Palgrave, 2018), pp. 37-64.

Hobsbawm, E., 'Introduction: Inventing Traditions', in *The Invention of Tradition*, ed. E. Hobsbawm & T. Ranger (Cambridge: CUP, 2012), pp. 1-14.

Hochadel, O., 'A Global Player From the South: The Jardín Zoológico de Buenos Aires and The Transnational Network of Zoos in the Early Twentieth Century', *História, Ciências, Saúde – Manguinhos*, Vol. 29, No. 3 (July-Sept 2022), pp. 789-812.

Hochadel, O., 'Science at the Zoo', *Centaurus Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 561-590.

Hochadel, O., 'Watching Exotic Animals Next Door: "Scientific" Observations at the Zoo (ca. 1870–1910)', *Science in Context*, Vol. 24, No. 2 (2011), pp. 183-214.

Hodge, J. M., 'Science and Empire: An Overview of the Historical Scholarship', in *Science and Empire: Knowledge and Networks of Science across the British Empire, 1800-1970*, ed. B. M. Bennet & J. M. Hodge (Basingstoke: Palgrave, 2011), pp. 3-29.

Hoes, C. M., 'Live Cargo, Dead Ends: The German Wildlife Trade in Global Perspective', *Bulletin of the German Historical Institute*, Vol. 70 (Fall, 2022), pp. 67-96.

Hoffenberg, H., A Science of Our Own: Exhibitions and the Rise of Australian Public Science (Pittsburgh: Pittsburgh University Press, 2019).

Holman, E. W., 'Evolutionary and Psychological Effects in Pre-Evolutionary Classification', *Journal of Classification*, Vol. 2 (1985), pp. 29-39.

Holscher, M., 'Performance, Souvenirs, and Music: The Diamond Jubilee of Queen Victoria 1897', in *Mediation, Remediation, and the Dynamics of Cultural Memory*, ed. A. Erll & A. Rigney (Berlin: Walter de Gruyter, 2009), pp. 173-186.

Hopwood, A. T., 'The Development of Pre-Linnean Taxonomy', *Proceedings of the Linnean Society*, Vol. 170 (1959), pp. 230-234.

HRH Prince Philip, 'Foreword', in *The Zoological Society of London 1826-1976* and Beyond (The Proceedings of a Symposium held at The Zoological Society of London on 25 and 26 March, 1976 – No.40), ed. By S. Zuckerman (London: Academic Press, 1976), pp. ix-xi

Huang, J., 'Stamford Raffles and the 'Founding' of Singapore: The Politics of Commemoration and Dilemmas of History', *Journal of the Malaysian Branch of the Royal Asiatic Society*, Vol. 91, Part. 2, No. 3 (Dec., 2018), pp. 103-122.

Huber, V., *Channelling Mobilities: Migration and Globalisation in the Suez Canal Region and Beyond, 1868-1914* (Cambridge: CUP, 2013).

Hutchins, M., R. J. Wiese & B. Smith, 'Introduction: Research in Zoos and Aquariums: Purpose, Justification, Utility and Welfare', in *Scientific Foundations of Zoos and Aquariums: Their Role in Conservation and Research*, ed. A. B. Kaufman, M. J. Bashaw & T. L. Maple (Cambridge: CUP, 2018), pp. 1-42.

Ito, T., 'History of the Zoo', in *Handbook of Historical Animal Studies*, ed. M. Roscher, A. Krebber & B. Mizelle (Oldenbourg: De Gruyter, 2021), pp. 439-455.

Ito, T., 'Locating the Transformation of Sensibilities in Nineteenth-Century London' in *Animal Cities: Beastly Urban Histories*, ed. P. Atkins (London: Routledge, 2012), pp. 189-204.

Ito, T., *London Zoo and the Victorians, 1828-1859* (Woodbridge: Boydell & Brewer, 2014).

Jacobs, N. J., 'The Intimate Politics of Ornithology in Colonial Africa', *Society for Comparative Study of Society and History*, Vol. 48, No. 3 (2006), pp. 564-603.

Jennings, P., 'Policing Drunkenness in England and Wales from the Late Eighteenth Century to the First World War', *The Social History of Alcohol and Drugs*, Vol. 26, No. 1 (2012), pp. 69-92.

Jolly, W. P., Jumbo (London: Constable, 1976).

Jones, R. W., "The Sight of Creatures Strange to our Clime': London Zoo and the Consumption of the Exotic', *Journal of Victorian Culture*, Vol. 2, No. 1 (1997), pp. 1-26.

Kaul, C., 'Monarchical Display and the Politics of Empire: Prince of Wales and India 1870-1920s, *Twentieth Century British History*, Vol. 17, Iss. 4 (2006), pp. 464-488.

Kean, H., 'Challenges for Historians Writing Animal–Human History: What Is Really Enough?', *Anthrozoös*, Vol. 25, Sup. 1, (2012), pp. s57-s72.

Keck, S. L., *British Burma in the New Century, 1895-1918* (London: Palgrave, 2015).

Keeton, C. L., King Thebaw and the Ecological Rape of Burma: The Political and Commercial Struggle Between British India and French Indo-China in Burma, 1878-1886 (Delhi: Manohar Book Service, 1974).

Kibulya, H. M., 'Geographic Contrasts on the Bwamba-Congo Border', in *The Political Geography of the Uganda-Congo Boundary*, eds. H.M. Kibulya and B.W. Langlands (Kampala: Makerere University College, 1967), pp. 1-56.

Kirk-Greene, A., *Britain's Imperial Administrators* 1858-1966 (London: Macmillan, 2000).

Kisling, V., *Zoo and Aquarium History: Ancient Animal Collections to Zoological Gardens* (Boca Raton: CRC Press, 2001).

Knight, D., Sources for the History of Science 1660-1914: The Sources of History (London: Hodder & Stoughton, 1975).

Knight, D., *The Nature of Science: The History of Science in Western Culture since 1600* (London: Andre Deutsch, 1976).

Koenigsberger, K., *The Novel and the Menagerie: Totality, Englishness, and Empire* (Columbus: Ohio University State Press, 2007).

Kohlstedt, S. G., 'Reflections on Zoo History' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 3-7.

Krüger, G., A. Steinbrecher & C. Wischermann, 'Animate History: Zugänge und Konzepte einer Geschichte zwischen Menschen und Tieren', in *Tiere und*

Geschichte: Konturen einer "Animate History", ed. G. Krüger, A. Steinbrecher & C. Wischermann (Stuttgart: Franz Steiner Verlag Wiesbaden, 2015).

Kuhn, T. S., *The Structure of Scientific Revolutions: 50th Anniversary Edition* (Chicago: University of Chicago Press, 2012).

Lambourne, M., 'John Gould and Curtis's Botanical Magazine', *The Kew Magazine*, Vol. 11, No. 4 (1994), pp. 186-197.

Lambrechts, W., 'The Brussels Zoo: A Mirror of 19th Century Modes of Thought on the City, Science and Entertainment', *Brussels Studies*, No. 77 (June, 2014), pp. 1-11.

Laqueur, T. W., 'Literacy and Social Mobility in the Industrial Revolution in England', *Past & Present*, No. 64, (Aug., 1974), pp. 96-107.

Larsson, E., "On Deposit": Animal Acquisition at the Zoological Society of London, 1870–1910', *Archives of Natural History*, Vol. 48, No. 1 (2021), pp. 1-21.

Latour, B. & S. Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverley Hills: Sage, 1979).

Latour, B., *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard University Press, 1987).

Layish, A., Sharī'a and the Islamic State in 19th-Century Sudan: The Mahdī's Legal Methodology and Doctrine (Lieden: Brill, 2010).

Lightman, B., 'Introduction', in *A Companion of the History of Science*, ed. B. Lightman (Chichester: Wiley-Blackwell, 2016), pp. 1-6.

Livingstone, D., *Putting Science in its Place: Geographies of Scientific Knowledge* (Chicago: Chicago University Press, 2003).

Longair, S. & J. McAleer, *Curating Empire: Museums and the British Imperial Experience* (Manchester: MUP, 2012).

López-Ocón, L., 'La Comisión Científica del Pacífico: De la ciencia imperial a la ciencia federativa', *Bulletin des Institutes Françaises de Études Andines*, Vol. 32 (2003), pp. 479-515.

Low, D. A., 'Warbands and Ground-Level Imperialism in Uganda, 1870-1900', *Australian Historical Studies*, Vol. 16, No. 65 (1975), pp. 584-597.

Low, D. A., *Lion Rampant: Essays in the Study of British Imperialism* (London: F. Cass, 1973).

Low, D. A.. Fabrication of Empire: The British and the Uganda Kingdoms, 1890–1902 (Cambridge: CUP, 2009).

Lynn, M., 'Consul and Kings: British Policy, "the Man on the Spot", and the Seizure of Lagos, 1851', *The Journal of Imperial and Commonwealth History*, Vol. 10, No. 2 (1982), pp. 150-167.

Bibliography

MacKenzie, J. M. & J. McAleer, 'Cultures of Display and the British Empire', in *Exhibiting the Empire: Cultures of Display and the British Empire*, ed. J. M. MacKenzie & J. McAleer (Manchester: MUP, 2015), pp. 1-41.

MacKenzie, J. M., Imperialism and Popular Culture (Manchester: MUP, 1986).

MacKenzie, J. M., 'Introduction', in *European Empires and the People: Popular Responses to Imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy*, ed. J. M. MacKenzie (Manchester: MUP, 2011), pp. 1-18.

Mackenzie, J. M., *Museums and Empire: Natural History, Human Cultures and Colonial Identity* (Manchester: MUP, 2017).

MacKenzie, J. M., *Museums and Empire: Natural History, Human Cultures and Colonial Identities* (Manchester: MUP, 2009).

MacKenzie, J. M., *Propaganda and Empire: The Manipulation of British Public Opinion, 1880-1960* (Manchester: MUP, 1984).

Mackenzie, J. M., *The Empire of Nature: Hunting, Conservation, and British Imperialism* (Manchester: MUP, 1997).

MacLeod, R., *Public Science and Public Policy in Victorian Britain* (Burlington: Ashgate Variorum, 1995).

Maddrell, A., Teaching a Contextual and Feminist History of Geography through Role Play: Women's Membership of the Royal Geographical Society (1892–1893)', *Journal of Geography in Higher Education*, Vol. 31, No. 3 (2007), pp. 393-412.

Magee, G. & A. S. Thompson, *Empire and Globalisation: Networks of People, Goods and Capital in the British World* (Cambridge: CUP, 2010).

Malamud, R., 'The Problems with Zoos' in *The Oxford Handbook of Animal Studies*, ed. L Kalof (Oxford: OUP, 2017), pp. 387-410.

Malamud, R., *Reading Zoos: Representations of Animals and Captivity* (London: Palgrave, 1998).

Marples, A. & V. R. M. Pickering, 'Exploring Cultures of Collecting in the Early Modern World', *Archives of Natural History*, Vol. 43, No. 1 (2016), pp. 1-20.

Mayr, E., *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge, MA: Harvard University Press, 1982).

McAleer, J., *Representing Africa: Landscapes, Exploration and Empire in Southern Africa 1780-1870* (Manchester: MUP, 2017).

McCreedy, C., 'Two Victorias?' Prince Alfred, Queen Victorian and Melbourne, 1867-68' in *Crowns and Colonies: European Monarchies and Overseas Empires* ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 51-76.

McLaughlin, R., *Reimagining the 'Dark Continent' in Fin de Siècle Literature,* (Edinburgh: Edinburgh University Press, 2012).

Mehos, D., Science and Culture for Members Only: The Amsterdam Zoo Artis in the Nineteenth Century (Amsterdam: Amsterdam University Press, 2006).

Merleau-Ponty, M., *Phenomenology of Perception*, trans. D. A. Landes (London: Routledge, 2012).

Metcalfe, T. R., *Imperial Connections: India in the Indian Ocean Area, 1860-1920* (Berkeley: California University Press, 2007).

Michael, T., *Black German: An Afro-German Life in the Twentieth Century*, trans. E. Rosenhaft (Liverpool: LUP, 2017).

Miescher, G., 'The Rinderpest Cordon of 1896–1897', in *Namibia's Red Line: The History of a Veterinary and Settlement Border*, ed. G. Miescher (New York: Palgrave, 2012), pp. 19-42.

Mikhail A., The Animal in Ottoman Egypt (Oxford: OUP, 2017).

Miller, D. P., 'Between Hostile Camps: Sir Humphrey Davy's Presidency of the Royal Society of London, 1820-7', *British Journal for the History of Science*, Vol. 16, No. 1 (1983), pp.1-47.

Miller, J., *Empire and the Animal Body: Violence, Identity and Ecology in Victorian Adventure Fiction* (London: Anthem Press, 2012).

Mishra, S., Beastly Encounters of the Raj: Livelihoods, Livestock and Veterinary Health in North India, 1790-1920 (Manchester: MUP, 2015).

Mitchell, P. C., *A Centenary History of the Zoological Society of London* (London: Printed for the Society, 1929).

Morgan, J. A. & C. C. McKenzie, *Militarism, Hunting, Imperialism: 'Blooding' the Martial Male* (London: Routledge, 2010).

Mosier, J. L., 'The Big Attraction: The Circus Elephant and American Culture', *Journal of American Culture*, Vol. 22, No. 2 (Summer, 1999), pp. 7-18.

Mukherjee, R., 'Escape from Terracentrism: Writing a Water History', *Indian Historical Review*, Vol. 41, No. 1 (June 2014), pp. 87–101.

Mullan, B. & G. Marvin, *Zoo Culture*, 2nd edition (Chicago: Illinois Chicago Press, 1999).

Nair, S. P., 'Native Collecting and Natural Knowledge (1798-1832): Raja Serfoji II of Tanjore as a 'Centre of Calculation', *The Royal Asiatic Society*, Ser. 3, Vol. 15, Iss. 3 (2005), pp. 279-302.

Nance, S., *Animal Modernity: Jumbo the Elephant and the Human Dilemma* (London: Palgrave, 2015).

Nance, S., *Entertaining Elephants: Animal Agency and the Business of the American Circus* (Baltimore: JHUP, 2013).

Neave, S. A., 'Concerning the Zoological Record', *Science*, Vol. 112, No. 2921 (Dec., 1950), pp. 761-762.

Nongri, N., 'Elephant Hunting in Late 19th Century North-East India: Mechanisms of Control, Contestation and Local Reactions', *Economic and Political Weekly*, Vol. 38, No. 30 (Jul. 26 – Aug 1, 2003), pp. 3189-3199.

Noor, F. A., *The Discursive Construction of Southeast Asia in 19th-Century Colonial-Capitalist Discourse* (Amsterdam: Amsterdam University Press, 2016).

Novick, A., 'On the Origins of the Quinarian System of Classification', *Journal of the History of Biology*, Vol. 49 (2016), pp. 49-95.

Nyhart, L. K., 'Historiography of the History of Science', in *A Companion of the History of Science*, ed. B. Lightman (Chichester: Wiley-Blackwell, 2016), pp. 7-22.

O'Gorman, E. & A. Gaynor, 'More-Than-Human Histories', *Environmental History*, Vol. 25 (2020), pp. 711–735.

Okumu, W., 'Resources and Border Disputes in Eastern Africa', *Journal of Eastern African Studies*, Vol. 4, No. 2 (2010), pp. 279-297.

Olechnicka, A., A. Ploszaj & D. Celińska-Janowicz, *The Geography of Scientific Collaboration* (London: Routledge, 2019).

Onley, P., 'London', in *Great Zoos of the World: Their Origins and Significance*, ed. S. Zuckerman (London: G. Weidenfled & Nicolson, 1980).

Osborne, M. A., *Nature, the Exotic, and the Science of French Colonialism* (Bloomington: Indiana University Press, 1994).

Pandian, M. S. S., 'Gendered negotiations: hunting and colonialism in the late 19th century Nilgiris', *Contributions to Indian Sociology*, Vol. 29, No. 1-2 (1995), pp. 239-263.

Parry, J., *Promised Lands: The British and the Ottoman Middle East* (Princeton: Princeton University Press, 2022).

Parsons, T. H., 'African Participation in the British Empire', in *Black Experience and the Empire: Oxford History of the British Empire Companion Series*, eds. P. D. Morgan & S. Hawkins (Oxford: OUP, 2006), pp. 257-285.

Pearson, C., 'History and Animal Agencies', in *The Oxford Handbook of Animal Studies*, ed. L. Kalof (Oxford: OUP, 2018), pp. 240-253.

Pearson, S. J. & M. Weismantel, 'Does "The Animal" Exist? Toward a Theory of Social Life with Animals', in *Beastly Natures: Animals, Humans, and the Study of History*, ed. D. Brantz (Charlottesville: University of Virginia Press, 2010), pp. 17-37.

Pedersen, J. & Others, 'Human–Ape Interactions in a Zoo Setting: Gorillas and Orangutans Modify Their Behavior Depending upon Human Familiarity', *Anthrozoös*, Vol. 32, No. 3 (2019), pp. 319-332.

Peterson, C., *Bestial Traces: Race, Sexuality, Animality* (New York: Fordham University Press, 2013).

Phoofolo, P., 'Epidemics and Revolutions: The Rinderpest Epidemic in late nineteenth-century Southern Africa', *Past & Present*, Vol. 138 (1993), pp. 112-143.

Phoofolo, P., 'Face to Face with Famine: The BaSotho and the Rinderpest, 1897-1899', *Journal of Southern African Studies*, Vol. 29, No. 2, (2003), pp.503-527.

Pierson, W. H., 'Notes on Early Industrial Architecture in England', *Journal of the Society of Architectural Historians*, Vol. 8, No. 1/2 (1949), pp. 1-32.

Pietsch, T., *Empire of Scholars: Universities, Networks and the British Academic World, 1850-1939* (Manchester: MUP, 2013).

Plumb, C., "Strange and Wonderful": Encountering the Elephant in Britain, 1675-1830, *Journal of Eighteenth Century Studies*, Vol. 33, No. 4 (2010), pp. 525-543.

Plunkett, J., Queen Victoria: The First Media Monarch (Oxford: OUP, 2003).

Poliquin, R., *The Breathless Zoo: Taxidermy and the Cultures of Longing* (Singapore: Tien Wah Press, 2012).

Pollak, P. B., *Empires in Collision: Anglo-Burmese Relations in the Mid-Nineteenth Century* (London: Greenwood, 1979).

Porter, B., *The Lion's Share: A Short History of British Imperialism 1850-1970* (New York: Longmans, 1975).

Pouillard, V., 'Animal Feeding, Animal Experiments, and the Zoo as a Laboratory: Paris Menagerie and London Zoo, ca. 1793-1939', *Centaurus – Journal of the European Society for the History of Science*, Vol. 64, No. 3 (2022), pp. 705-728.

Pratt, M. L., *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 2007).

Pyenson, L. & S. Sheet-Pyenson, *Servants of Nature: A History of Scientific Institutions, Enterprises and Sensibilities* (London: Harper Collins, 1999).

Raj, K., 'Localities and Spaces of Circulation: Mapping Humanity from Calcutta in the Late 18th Century', in *Connecting Worlds: Production and Circulation of Knowledge in the First Global Age*, ed. A. Polónia, F. Bracht & G. C. Conceição (Cambridge: Cambridge Scholars Publishing, 2018), pp. 18-44. Ray, A., 'The Aesthetic Gaze: Siting Nineteenth Century Indian Travel Writing', *Rupkatha Journal on Interdisciplinary Studies in Humanities*, Vol. VIII, No. 4 (2016), pp. 122-129.

Reidy, M. S., *Tides of History: Ocean Science and Her Majesty's Navy* (Chicago: University of Chicago Press, 2008).

Rieppel, L., 'Bringing Dinosaurs Back to Life: Exhibiting Prehistory at the American Museum of Natural History', *Isis*, Vol. 103, No. 3 (2012), pp. 460-490.

Ritvo, H., 'The Order of Nature: Constructing the Collection of Victorian Zoos' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 43-50.

Ritvo, H., *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987).

Robbins, L. E., *Elephant Slaves & Pampered Parrots: Exotic Animals in Eighteenth-Century Paris* (Baltimore: JHUP, 2002).

Robinson, M. H., 'Foreword' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. vii-xi.

Rock, D., *The British in Argentina: Commerce, Settlers and Power, 1800-2000* (Cham: Palgrave, 2019).

Rookmaaker, K., J. Gannon & J. Monson, 'The Lives of Three Rhinoceroses Exhibited in London 1790-1814', *Archives of Natural History*, Vol. 42, No. 2 (2015), pp. 279-300.

Rookmaaker, L. C., *The Rhinoceros in Captivity: A list of 2439 Rhinoceroses Kept from Roman Times to 1994* (The Hague: SPD Academic Publishing, 1998).

Roscher, M., A. Krebber & B. Mizelle, 'Writing History After the Animal Turn? An Introduction to Historical Animal Studies', in *Handbook of Historical Animal Studies*, ed. M. Roscher, A. Krebber & B. Mizelle (Oldenbourg: De Gruyter, 2021), pp. 1-18.

Rösler, M., 'Shifting Cultivation in the Ituri Forest [Haut-Zaïre]: Colonial Intervention, Present Situation, Economic and Ecological Prospects', *Université Libre de Bruxelles,* Vol. 44 (1997), pp. 44-61.

Rothfels, N., & D. Blau, *Elephant House (*State College: Penn State University Press, 2015).

Rothfels, N., 'Killing Elephants: Pathos and Prestige in the Nineteenth Century', in *Victorian Animal Dreams* (London: Routledge, 2017), pp. 53-63.

Rothfels, N., 'Mammoths in the Landscape', in *Routledge Handbook of Human-Animal Studies*, ed. G. Marvin & S. McHugh (London: Routledge, 2014), pp. 10-22.

Rothfels, N., 'The Eyes of Elephants: Changing Perceptions, *Tidsskrift for Kulturforskning*, Vol. 7. No. 3 (2008), pp. 39-50.

Rothfels, N., 'Touching Animals: The Search for a Deeper Understanding of Animals' in *Beastly Natures: Animals, Humans, and the Study of History*, ed. D. Brantz (Charlottesville: University of Virginia Press, 2010), pp. 38-58.

Rothfels, N., 'Why Look at Elephants?', *Worldviews: Global Religions, Culture, and Ecology*, Vol. 9, No. 2 (2005), pp. 166-183.

Rothfels, N., *Elephant Trails: A History of Animals and Culture* (Baltimore: JHUP, 2021).

Rothfels, N., *Savages and Beasts: The Birth of the Modern Zoo* (Baltimore: JHUP, 2002).

Rothschild, M., *Walter Rothschild: The Man, the Museum and the Menagerie* (London: Natural History Museum, 2008).

Ruchman, S. G., 'Colonial Construction: Labor Practices and Precedents Along the Uganda Railway, 1893- 1903', *The International Journal of African Historical Studies*, Vol. 50, No. 2 (2017), pp. 251-273.

Rüger, J., 'Nation, Empire and Navy: Identity Politics in the United Kingdom, 1887-1914', *Past & Present*, No. 185 (Nov., 2004), pp. 159-187.

Russell, R., *The Business of Nature: John Gould and Australia* (Canberra: The National Library of Australia, 2011).

Rutz, M. A., *King Leopold's Congo and the 'Scramble for Africa': A Short History* (Cambridge: Hacketts, 2018).

Saha, J., 'Accumulations and Cascades: Burmese Elephants and the Ecological Impact of British Imperialism', *The Transactions of the Royal Historical Society*, Vol. 32 (2022), pp. 177-197.

Saha, J., *Colonizing Animals: Interspecies Empire in Myanmar* (Cambridge: CUP, 2021).

Saha, J., 'Murder at London Zoo: Late Colonial Sympathy in Interwar Britain', *The American Historical Review*, No. 121, No. 5 (2016), pp. 1468-1491.

Said, E. W., 'Orientalism reconsidered', *Cultural Critique*, Vol. 1 (1985), pp. 89–107.

Said, E. W., Orientalism (London, Penguin Books, 2003).

Said, E. W., Culture & Imperialism (London: Vintage Books, 1994).

Bibliography

Searcy, K., The Formation of the Sudanese Mahdist State - Ceremony and Symbols of Authority: 1882–1898 (Leiden: Brill, 2011).

Serpell, J. A., 'Anthropomorphism and Anthropomorphic Selection – Beyond the "Cute Response", *Animals & Society*, Vol. 10, No. 4 (2002), pp. 437-454.

Sethna, C., 'The Memory of an Elephant: Savagery, Civilisation, and Spectacle', in *Histories of Human-Animal Relations in Urban Canada*, ed. J. Dean, D. Ingram & C. Sethna (Calgary: Calgary University Press, 2017), pp. 29-56.

Shapin, S., 'The Invisible Technician', *American Scientist*, Vol. 77, No. 6 (1989), pp. 554-563.

Shaw, D. G., 'A Way with Animals', *History and Theory*, Vol. 52, No. 4, Iss. 52 – Does History Need Animals? (Dec., 2013), pp. 1-12.

Sigwart, J., M. D. Sutton, K. D. Bennet, 'How Big is a Genus? Towards a Nomothetic Systematic', *Proceedings of the Linnean Society*, Vol. 183 (2018), pp. 237-252.

Simons, J., 'The Scramble for Elephants: Exotic Animals and the Imperial Economy', in *Captured: The Animal Within Culture*, ed. M. Boyde (Basingstoke: Palgrave, 2014), pp. 26-42.

Simons, J., 'The Soft Power of Elephants', in *The Routledge Handbook of Soft Power*, eds. N. Chitty, L. Ji, G. Rawnsley & C. Hayden (London: Routledge, 2017), pp. 177–184.

Simons, J., *Obaysch: A Hippopotamus in Victorian London* (Sydney: Sydney University Press, 2019).

Singh, G., 'Elephant Hunting in Colonial Assam', *Proceedings of the Indian History Congress*, Vol. 77 (2016), pp. 759-765.

Singhal, D. P., *The Annexation of Upper Burma* (Singapore: Eastern University Press, 1960).

Sivasundaram, S., 'Trading Knowledge: The East India Company's Elephants in India and Britain', *The Historical Journal*, Vol. 48, No. 1 (2005), pp. 27-63.

Skabelund, A., 'Can the Subaltern Bark? Imperialism, Civilization, and Canine Cultures in Nineteenth-Century Japan', in *JAPANimals: History and culture in Japan's Animal Life*, ed. G. M. Pflugfelder & B. L. Walker (Michigan: University of Michigan, 2005), pp. 195-243.

Somers, M. R., 'Narrativity, Narrative Identity, and Social Action: Rethinking English Working-Class Formation', *Social Science History*, Vol. 16, No 4 (Winter, 1992), pp. 591-630.

Specht, J., 'Animal History After its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens', *History Compass*, Vol. 14, No. 7 (2016), pp. 326-336.

Spivak, G. C., 'Can the Subaltern Speak?', in *Colonial Discourse and Post-Colonial Theory: A Reader*, ed. P. Williams & L. Chrisman (New York: Columbia University Press, 1994), pp. 66-111.

Sramek, J., "Face Him like a Briton": Tiger Hunting, Imperialism, and British Masculinity in Colonial India, 1800-1875', *Victorian Studies*, Vol. 48, No.4 (2006), pp. 659-680.

Stanley, B., "Commerce and Christianity': Providence Theory, The Missionary Movement, and the Imperialism of Free Trade, 1842-1860', *The Historical Journal*, Vol. 26, No. 1 (1983), pp. 71-94.

Stoler, A. L. & F. Cooper, 'Between Metropole and Colony: Rethinking a Research Agenda', in *Tensions of Empire: Colonial Cultures in a Bourgeois World*, ed. F. Cooper & A. L. Stoler (Berkeley: California University Press, 1997), pp. 1-58.

Summerson, J., 'The Beginnings of Regents Park', *Architectural History*, Vol. 20 (1977), pp. 56-62+90-99.

Sunderland, J., *Jumbo: The Unauthorised Biography of a Victorian Sensation* (London: Aurum, 2014).

Suzuki, Y., *The Nature of Whiteness: Race, Animals, and Nation in Zimbabwe* (Seattle: University of Washington Press, 2017).

Swart, S., 'O is for Okapi', in *Animalia: An Anti-Imperial Bestiary for our Times*, ed. A. Burton & R. Mawani (Durham, NC: Duke University Press, 2020), pp. 132-136.

Taylor, M., 'The British Royal Family and the Colonial Empire from the Georgians to Prince George', in *Crowns and Colonies: European Monarchies and Overseas Empires*, ed. R. Aldrich & C. McCreedy (Manchester: MUP, 2016), pp. 27-50.

Thomas, K., *Man and the Natural World: Changing Attitudes in England 1500-1800* (London: Penguin Books, 1984).

Thompsell, A., 'G is for GIRAFFE', in *Animalia: An Anti-Bestiary for Our Times*, ed. A. Burton & R. Mawani (Durham, NC: Duke University Press, 2020), pp. 71-78.

Thompsell, A., *Hunting Africa: British Sport, African Knowledge and the Nature of Empire* (London: Palgrave MacMillan, 2015).

Thompson, A., 'Introduction', in *Writing Imperial Histories*, ed. A. S. Thompson (Manchester: MUP, 2013), pp. 1-28.

Thompson, E. P., *The Making of the English Working Class* (New York: Vintage Books, 1966).

Toovey, J. W., '150 Years of Buildings at London Zoo', in *The Zoological* Society of London 1826-1976 and Beyond (The Proceedings of a Symposium)

held at The Zoological Society of London on 25 and 26 March, 1976 – No.40), ed. S. Zuckerman (London: Zoological Society of London, 1976), pp. 179-202.

Turnbull, D., 'Boundary-crossings, Cultural Encounters and Knowledge Spaces in Early Australia', in *The Brokered World: Go-Betweens and Global Intelligence, 1770–1820*, ed. S. Schaffer & Others (Sagamore Beach: Science History Publications, 2009), pp. 387-428.

Turner, F. M., 'Public Science in Britain, 1880-1919', *Isis*, Vol. 71, No. 4 (December, 1980), pp. 589-608.

Unangst, M., 'Manufacturing Crisis: Anti-Slavery 'Humanitarianism' and Imperialism in East Africa, 1888-1890', *Journal of Imperial and Commonwealth History*, Vol. 48, Iss. 5 (2020), pp. 805-825.

van Onselen C., 'Reactions to Rinderpest in Southern Africa 1896-97', *The Journal of African History*, Vol. 13, No. 3 (1972), pp. 473-488.

van Reybrouck, D., 'Archaeology and Urbanism: Railway Stations and Zoological Gardens in 19th-Century Cityscape', *Public Archaeology*, Vol. 4, No. 4 (2005), pp. 225-241.

Varisco, D. M., *Reading Orientalism Said and the Unsaid* (Seattle: University of Washington Press, 2012).

Veltre, T., 'Menagerie, Metaphors, and Meanings' in *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, ed. R. J. Hoage & W. A. Deiss (Baltimore: JHUP, 1996), pp. 19-29.

Wacquant, L., 'Revisiting Territories of Relegation: Class, Ethnicity and State in the Making of Advanced Marginality', *Urban Studies*, Vol. 53, Iss. 6 (2015), pp. 1077-1088.

Weisberg, Z., 'The Broken Promises of Monsters: Haraway, Animals and the Humanist Legacy', *Journal of Critical Animal Studies*, Vol. 7, Iss. 2 (2009), pp. 22-62.

Whitt, L., Science, Colonialism, and Indigenous Peoples: The Cultural Politics of Law and Knowledge (Cambridge: CUP, 2009).

Withers, C. W. J., 'Disguise – Trust and Truth in Travel Writing', *Terrae Incognitae*, Vol. 53, No. 1 (2021), pp. 48-64.

Withers, C. W. J., 'Place and the "Spatial Turn" in Geography and in History', *Journal of the History of Ideas*, Vol. 70, No. 4 (Oct. 2009), pp. 637-658 (pp. 638-644).

Wolf, M. & F. J. Weissing, 'Animal Personalities: Consequences for Ecology and Evolution', *Trends in Ecology & Evolution*, Vol. 27, No. 8 (Aug., 2012), pp. 452-461.

Wood, A., 'Doctors in the Zoo: Connecting Human and Animal Health in British Zoological Gardens, *c.* 1828-1890', in *Animals and the Shaping of Modern*

Medicine: One Health and its Histories, ed. A. Wood, M. Bresailer, A. Cassidy & R. M. Dentinger (Basingstoke: Palgrave, 2018), pp. 27-69.

Wright, M., 'East Africa 1870-1905', in *The Cambridge History of Africa: Volume 6 – From 1870 to 1905*, eds. R. Oliver & G. N. Sanderson (Cambridge: CUP, 1985), pp. 539-591.

Yeandle, P., "Jumboism Akin to to Jingoism": Race, Nation and Empire in the Elephant Craze of 1882', in *The Mackenzie Moment and Imperial History*, ed. S. Barczewski & M. Farr (London: Palgrave, 2019), pp. 47-74.

Zuckerman, S., 'The Rise of Zoos and Zoological Societies', in *Great Zoos of the World: Their Origins and Significance*, ed. S. Zuckerman (London: Weidenfeld & Nicholson, 1979), pp. 1-26.

Zuckerman, S., 'The Zoological Society of London: Evolution of a Constitution', in *The Zoological Society of London 1826-1976 and Beyond*, ed. S. Zuckerman (London: Zoological Society of London, 1976), pp. 1-16.

Unpublished Theses

Anderson, J., 'Marylebone Park and the New Street: A Study of the Development of Regent's Park and the Buildings of Regent Street, London, in the First Quarter of the Nineteenth Century' (Unpublished PhD Thesis: University of London, 1998).

Chaplin, S. D. J., 'John Hunter and the 'Museum Oeconomy', 1750-1800' (Unpublished PhD Thesis: King's College London, 2009), p. 183.

Ito, T., 'Debating Urban Entertainment, Public Science, and Imperial Glory: A Case Study of the London Zoo, c.1826-60' (Unpublished PhD Thesis: Royal Holloway University of London, 2004).

Lowther, D. A., 'The Reverent Eye: Scientific Visual Culture and the Origins of Modern British Zoology, 1815-1840 (Unpublished PhD Thesis: Newcastle University, 2016).

Murray, N., 'Lives of the Zoo: Charismatic Animals in the Social Worlds of the Zoological Gardens of London, 1850-1897' (Unpublished PhD Thesis: Indiana University, 2004).

Robbins, L. E., *Elephant Slaves and Pampered Parrots: Exotic Animals in Eighteenth-Century France* (Unpublished PhD Thesis: University of Wisconsin, 1998).

Newspapers

Said, E. W., 'Arabs, Islam and the Dogmas of the West', *New York Times*, 31st October 1976.

Websites

'David William Mitchell Aquarium Ambitions – References', Parlour Aquariums, http://www.parlouraquariums.org.uk/Pioneers/Mitchell/refMitch.html

'Feed our Elephants - Meet the Elephants' Whipsnade Zoo: Zoo Experiences, https://www.whipsnadezoo.org/plan-your-visit/zoo-experiences/meet-elephants

A. Datta, 'Gould's Hummingbird's at the Zoological Society 1851', Artefact of the Month – 16 May 2021, Zoological Society of London Library and Archive Blogs, https://www.zsl.org/news-and-events/feature/hummingbirds-zoological-gardens-1851

C. M. Turnbull, 'Sir (Thomas) Stamford Bingley Raffles (1781-1826)', Oxford Dictionary of National Biography,

https://www.oxforddnb.com/display/10.1093/ref:odnb/9780198614128.001.0001 /odnb-9780198614128-e-23010?rskey=Gaifhr&result=2

R. Bullen, 'Race and the White Elephant War of 1884', The Public Domain Review (Oct., 2017), https://publicdomainreview.org/essay/race-and-the-white-elephant-war-of-1884

R. Oliver, 'Johnston, Sir Henry Hamilton [Harry], (1858-1927)', Oxford Dictionary of National Biography,

oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-34211

Conference Papers

Stoeger, Alexander '[Rejected!] – The Royal Society's Referee Reports from 1831 to 1945', at *British Society for the History of Science Annual Conference 2022*, Panel 7A Historiography, Methods, and Reviewers (Held 20th -23rd July, Belfast, 2022).

Sullivan, S. M., W. Skidmore & G. Dante, 'Authenticity in an Uncertain World: Ensuring Accuracy in both the Explicit and Implicit Messages of Exhibits' at *Biodiversity Information Science Standards Conference (Hosted by the Society for the Preservation for Natural History Collections)*, (Held June 13th 2018), pp. 1-3 (p. 1).

Miscellaneous

'Portrait presume de Hassan, gardien de la giraffe offerte a charles X, roi de France de 1824 a 1830' [Presumed portrait of Hassan, keeper of the giraffe given to King Charles X (reigned 1824-1830)] by Claude-Marie Dubufe is, at time of writing, on display in Musée du Louvre, Paris. Achat, 2017 R-F. 2017-9.