

Birds, bugs and botany: a brief introduction to the world of the Rothschilds and Science

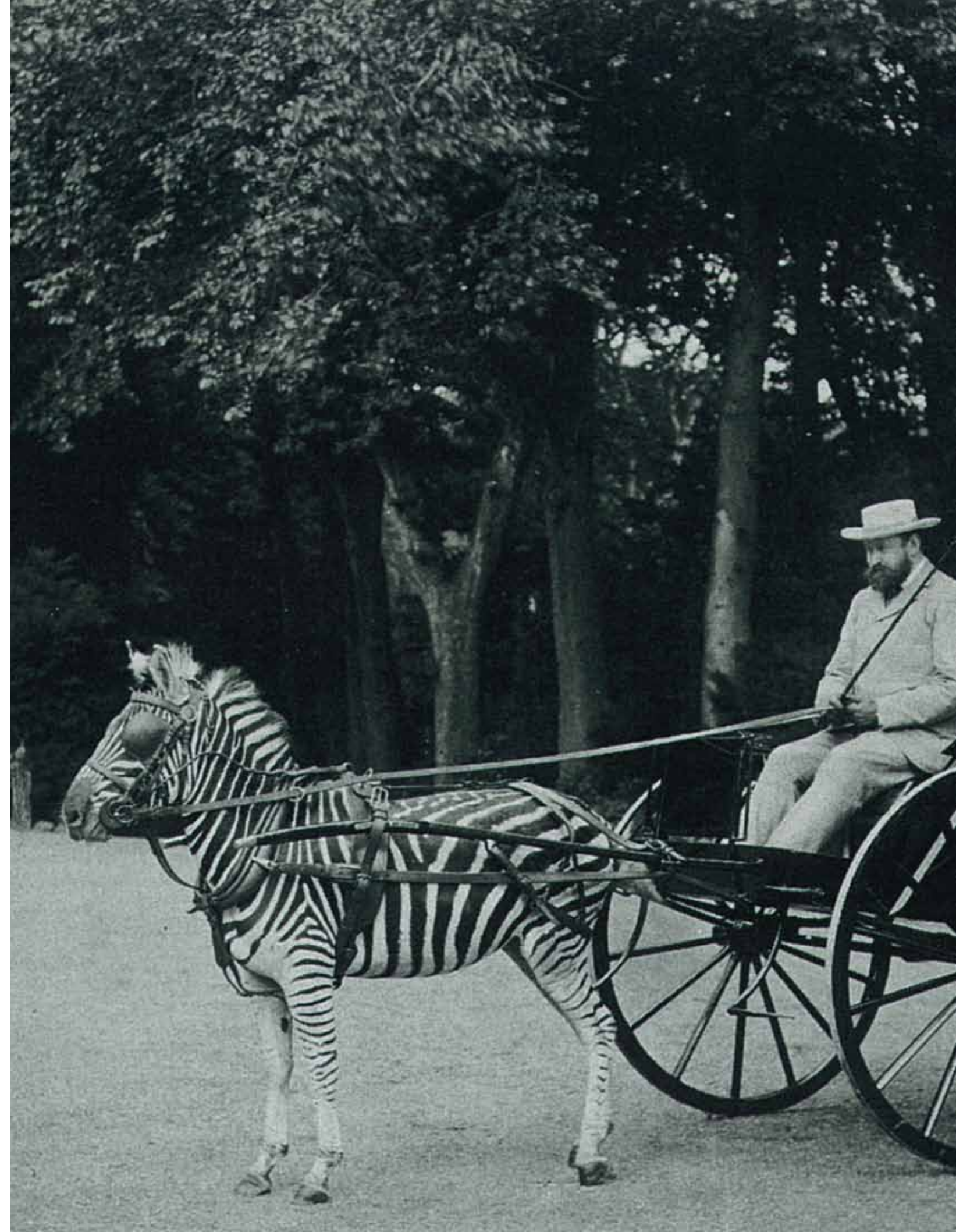
Jenni Thomas reveals an unlikely strength of The Rothschild Archive and the potential development of new strands of research.



This image of Charles Rothschild as a young man was chosen by The Wildlife Trusts to appear on commemorative postcards produced for the Trusts' centenary year. The organisation owes its existence to the work of Charles Rothschild.
RAL 000/1323

To the uninitiated and even perhaps to those of you who are not regular readers of this *Review*, The Rothschild Archive's latest research project, which examines the Rothschilds and science, might conjure up images of Walter Rothschild travelling to Buckingham Palace in a carriage led by zebras or trigger memories of dressed fleas at his Zoological Museum (now Natural History Museum) at Tring. You might also be forgiven for thinking that those members of the Rothschild family who were involved in science were 'amateur naturalists' in the pejorative sense, whose finances enabled them to indulge in amassing large collections, but whose passion and interest stopped at the accumulation rather than interrogation of the natural world. Even if this were so, and I will of course argue to the contrary, the collections accumulated, particularly by brothers Charles and Walter Rothschild were, and remain, of huge scientific significance both in terms of volume and in content.

Walter began collecting natural history specimens as a child and quickly built a large collection of objects which formed the basis of his Zoological Museum and was opened to the public in 1892. Forty years later, Walter Rothschild sold his collection of bird skins to the American Museum of Natural Museum in order to pay off debts he had accumulated. The purchase,

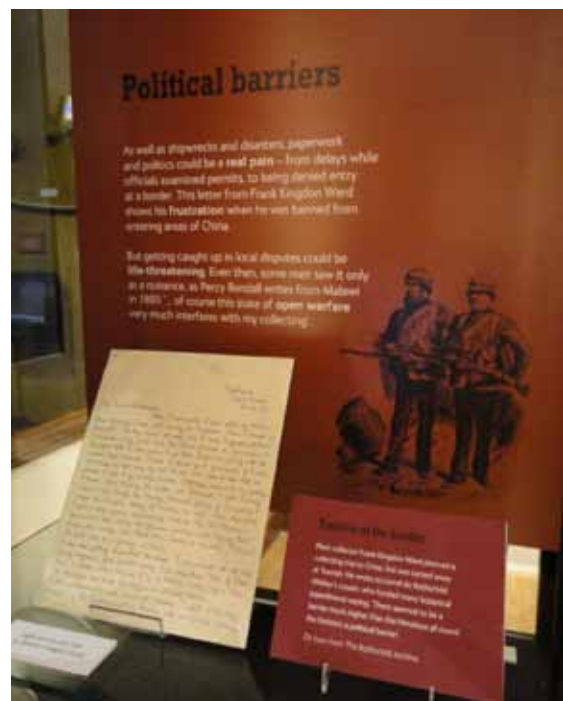


which equated to some 280,000 specimens, was financed by philanthropist Gertrude Vanderbilt Whitney, who also funded an extension to the Museum's building to accommodate the specimens. The acquisition of Walter's bird skins substantially enlarged the Museum's collection firmly securing its place as one of the leading collections of avian material in the world. Walter retained a small proportion of his collection of bird skins, including his beloved cassowaries, in addition to the bird skeletons, eggs and nests plus associated correspondence. These, together with the bulk of Walter's natural history library, and other natural history specimens, including 2.5 million Lepidoptera specimens, were donated to the British Museum (Natural History), now the Natural History Museum, upon Walter's death in 1937.

Charles' collection of fleas was similarly extensive, and is estimated to consist of around 260,000 specimens mounted on around 96,000 slides, many of which remain in the six original Rothschild cabinets that he commissioned. Charles also bequeathed his collection to the British Museum (Natural History), now Natural History Museum. The collection is documented in a series of catalogues produced by Charles' daughter Miriam and various collaborators. Both Charles and Walter's collections contain countless type specimens, the original specimen from which a description of a new species was made, in addition to extinct extirpated and endangered species.

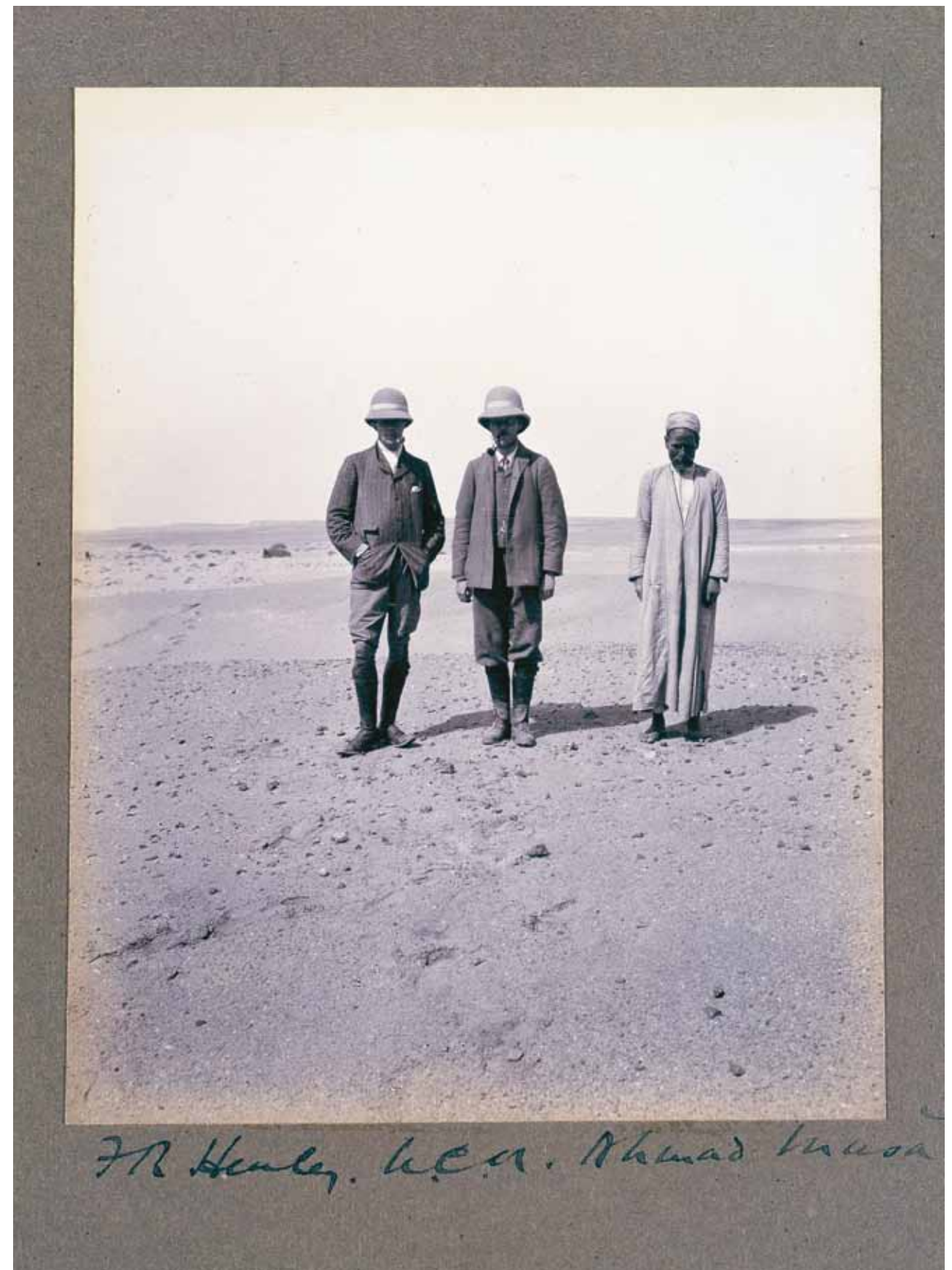
However the impulse to collect was not solely associated with accumulation, so much as a desire to understand and map the world using specimens. Both Charles and Walter were gifted systematists and, together with Tring Museum's curators, Karl Jordan and Ernst Hartert, published numerous papers in *Novitates Zoologicae* amongst other journals on the species they and their network of collectors assembled. Charles, for instance, collected, described and named the plague carrying flea, *Xenopsylla cheopis*, which represented a significant breakthrough in our understanding of the way in which the plague bacterium *Yersinia pestis* is transmitted.

Then there were Charles' children. Victor worked on fertilisation and was elected as a Fellow of the Royal Society in 1953 for his work on the mechanism behind fertilising the egg and the physiology of spermatozoa. His later scientific career led him to work as head of research for Royal Dutch Shell. Victor's sister, Miriam, was an entomologist and a world authority on fleas,



On a visit to Egypt in 1902, Charles Rothschild collected, described and named the plague-carrying flea, *Xenopsylla cheopis*.
RAL 000/1323

Letter from Frank Kingdon Ward to Lionel de Rothschild on display in the exhibition *Daring Collectors*, Natural History Museum, Tring.
RAL XI/15



butterflies, pyrazines and chemical communication. Miriam was elected as a Fellow of the Royal Society in 1985 and Miriam and Victor remain the Society's only brother and sister members. The Rothschild Archive holds copies of all Miriam and Victor's publications.

But it was not just this line of the family who were involved in studies of the natural world. Lionel de Rothschild, cousin of Charles and Walter, was a generous funder of plant hunting expeditions and was a key figure in the cultivation and hybridisation of rhododendrons. The Rothschild Archive holds extensive records of Lionel's work in horticulture, including correspondence with the Royal Horticultural Society, the Rhododendron Association and various plant hunters including Frank Kingdon-Ward and George Forrest. Charles and Walter were also involved in plant cultivation with the former working predominately on irises and the latter on orchids. Lionel, Walter and Charles gave samples of their living collections to be grown at the Royal Botanic Gardens, Kew, while examples from Charles' pressed collection of irises remain extant in Kew's collection in addition to those of the Natural History Museum and the Royal Botanic Gardens, Edinburgh. Gardening and horticulture was a preoccupation of numerous family members including Amschel Rothschild who developed gardens in Frankfurt and Charlotte de Rothschild who had an extensive living orchid collection at Gunnersbury Park.

Lionel, Charles and Miriam were also interested in the conservation, preservation and development of habitats. Lionel for instance helped to found the Roads Beautifying Association, while Charles set up the Society for the Promotion of Nature Reserves which became The Wildlife Trusts and is celebrating its centenary in 2012. Miriam championed nature conservation and her garden at Ashton Wold in Northamptonshire was an outstanding example of wildflower and grassland gardening. Miriam's expertise in nature conservancy led to her advising HRH Prince Charles, the Prince of Wales, when he was creating an experimental wildflower meadow at his Highgrove Estate.

The Rothschild Scientists project seeks to bring together dispersed collections relating to members of the Rothschild family and science in a virtual archive. To this end, the Rothschild Foundation has generously funded the initial stages of the project, including a project archivist at the NHM and a project director at The Rothschild Archive. Lorna Cahill was appointed as the Project Archivist in January 2012 with the remit to catalogue correspondence sent between 1903 and 1914 to Walter's Zoological Museum. This collection, popularly known as the 'Tring Correspondence', was part of Walter's bequest to the British Museum (Natural History) and is now held at the Natural History Museum, South Kensington. As Cahill discusses more fully in her article, this work has had an almost immediate impact as it has contributed content to an exhibition at the Natural History Museum, Tring titled 'Daring Collectors'. The exhibition, which is scheduled to open in July 2012, examines the frequently dangerous and hostile conditions which collectors experienced when accumulating natural history specimens. A letter sent from plant hunter Frank Kingdon-Ward to Lionel de Rothschild from The Rothschild Archive's collection will feature in the display. Jenni Thomas has been acting as the project's director since February 2012. As part of both Thomas and Cahill's work, it has quickly become apparent that the richness and diversity of the collections would benefit from more detailed work beyond creating a virtual repository.

We have therefore organised a workshop, to be held in September 2012 to bring together representatives from institutions with Rothschild-related material, including the Natural History Museum and Kew, researchers in the sciences, arts and humanities, digital specialists and other interested parties, such as The Wildlife Trusts. It will seek to identify the research questions we might develop in the context of the Rothschilds and science, ask how emerging digital technologies might assist in bringing together the now dispersed collections of Rothschild-related natural history specimens and archival material and consider how to involve audiences beyond the academy with our research.

Below
Miriam Rothschild and her children in her laboratory at home in Oxford.
RAL 000/1323

Inspired by the work of Miriam Rothschild, we are developing a project with the Royal Society of London and the universities of Kingston and Liverpool provisionally titled 'Words from the WISE: women in science in Britain, 1830–2012'. You might be surprised to learn that only 11% of 'high office' positions in science, engineering and technology (STEM) are held by women. Given the underrepresentation of women in senior STEM posts, we want to build a network of researchers and collections to consider what can be learnt about women's participation in science now through a detailed study of the history of their involvement in learned societies. Miriam, for instance, was involved in numerous learned bodies, perhaps most notably as a Fellow of the Royal Society, in addition to her being the first female member of the exclusive Entomological Club and the first female President of the Royal Entomological Society. Establishing a research network of interested parties will be the first step in enabling the development of a future large-scale, interdisciplinary project to investigate the participation of women in learned societies during the nineteenth and twentieth centuries.

So although thinking of the Rothschilds and science may conjure images of Mexican dressed fleas and carriages led by zebras, this undervalues various family members' immersion in and contribution to science. The Rothschild Scientists project will enable us to more fully appreciate the ways in which various members of the family contributed to our knowledge of the natural world and their commitment to its conservation. All in all, it is going to be an exciting year!

Jenni Thomas is a historian of science whose research and published work focuses on the history of natural history, in particular museum collections. She took up the role of Director of the Rothschild Scientists Project in February 2012.

NOTES

- 1 Kristin Johnson's biography of Karl Jordan, *Ordering Life: Karl Jordan and the Naturalist Tradition* (Baltimore: The Johns Hopkins University Press, 2012) is available in the Archive's Reading Room.
- 2 See the Rothschild bibliography at www.rothschildarchive.org/research/?doc=/research/articles/bib_cover
- 3 The records have the reference RAL XI/15.
- 4 www.wildlifetrusts.org/100

