



Chinese Entomological Study of an Atlas Moth (*Attacus atlas*)

China, c. 1805

Watercolour on Whatman paper

40cm high, 29cm wide

Stock no.: A5895

Provenance: From a London bookshop, acquired 30 to 50 years ago

Watercolours like this study of a moth were made across Asia in the late 18th and early 19th centuries commissioned by Britons, often in the employ of the East India Company, and painted by local artists. These watercolour studies were then sent on ships, alongside specimens, to the universities and botanical gardens in Europe for the purposes of study. Not only did these paintings serve as valuable scientific documentation of the fauna in a pre-photographic age, but they were also a vital part of empire building. Britain's wealth relied on commodities such as cotton, spices, indigo, tobacco, opium, and tea. Discovering new species and transplanting them to colonies to be cultivated could prove profitable.¹ As such, many of the flora and fauna documented in these watercolours are those with medicinal, gastronomic, or industrial uses.

This striking watercolour depicts an atlas moth, or giant Chinese silk moth. The painting is a near life-size study of the insect, which has a wingspan of 24cm, the third largest of any lepidopteran.² This is the female of the

the male having broad, feathery antennae. The white fleshy spines on the abdomen of the moth show the pupa in a later stage of its lifespan. The triangular windows in each of the four wings, through which the plant is seen, are thought to reflect light to scare predators. It also uses its elongated wing tips as a defence mechanism by shaking them to imitate a snake's head.³ The texture of the wings is particularly well observed. Minute bristles help to create the soft, velvety texture of the moth's scales.

Not only does this colourful study make a highly attractive piece of art, but it also represents a valuable historical record. Cocoons of the Atlas moth larvae are used in Asia to make silk, known as *etles* or *fagara*. This practice is common amongst the Uyghur people of Xinjiang. The silk is traditionally coloured with natural dyes, like woad and saffron. Unlike traditional silk produced by the silkworm *Bombyx mori*, atlas silk is fibrous and coarse, creating wool-like textiles.⁴

The process of total metamorphosis undergone between larval stage and adulthood has led to an associated cycle of death and rebirth. They also appear in traditional Chinese folktales, like *The Butterfly Lovers* or *and Zhu Yingtai*, where they are a symbol of love and fidelity.⁵ The inclusion of insects may also serve an educational purpose, documenting the plants' pests and pollinators.

This watercolour is painted on Whatman paper watermarked 1805, providing the *terminus post quem* for the study. Though the paper could have been stored and used at a later date, pith was preferred for Chinese paintings from c. 1820, suggesting that this group dates from between 1805 and 1820.⁶

[1] 'China Trade Album', *Australian National Maritime Museum*. Retrieved online from <https://collections.sea.museum/en/objects/164143/china-trade-album--tea-manufacture> on 06/11/2024.

[2] Kons, Hugo (Jr.). 'Largest Lepidopteran Wing Span', *The University of Florida Book of Insect Facts*, Department of Entomology and Nematology: 1998. Retrieved online from https://entnemdept.ufl.edu/walker/ufbir/chapters/chapter_32.shtml on 02/11/2024.

[3] Sargent, Channing. 'How the Atlas Moth Imitates Snakes to Ward Off Threats', *One Earth* (2022). Retrieved via <https://www.oneearth.org/species-of-the-week-atlas-moth/> on 06/12/2024.

[4] Reddy, Narendra, Yi Zhao, and Yigi Yang. 'Structure and Properties of Cocoons and Silk Fibers of the *Attacus Atlas*', *Journal of Polymers and the Environment* 21 (2013), pp. 16-23.

[5] Yin, Tongyun. 'Butterflies in the Asian Wing', *Harn Museum of Art*. Retrieved online from [https://harn.ufl.edu/resources/those-butterflies-in-the-asian-wing/#:~:text=Butterflies%20have%20long%20been%20appreciated,are%20often%20likened%20to%20a%20snake's%20head,](https://harn.ufl.edu/resources/those-butterflies-in-the-asian-wing/#:~:text=Butterflies%20have%20long%20been%20appreciated,are%20often%20likened%20to%20a%20snake's%20head,06/01/2025) 06/01/2025.

[6] Endersby, Jim. *Imperial Nature: Joseph Hooker and the Practices of Victorian Science*. Chicago: Chicago Press, 2008. pp 17-18.