⁵ NHM Reeves Zoological Drawings. Birds. 11. Watermark: "J WHATMAN 18 [rest of date obscured]"; 38.5×49.4 cm; stamped with a shield; inscribed in pencil: "21" (reproduced in Magee 2011: 66).

 6 NHM Reeves Zoological Drawings. Birds. L.S. 11. 41.5 × 49 cm; stamped with a shield; inscribed in pencil: "22"; inscribed in ink "27".

⁷ NHM Thomas Hardwicke collection. Birds 3: 62; 38.5×49 cm; inscribed in pencil: "62" (copy of ZSL Reeves folio 15). Birds 3: 63; 38.5×49.8 cm; inscribed in ink: "55"; inscribed in pencil "63" (copy of ZSL Reeves folio 14B).

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Received 10 August 2017. Accepted 1 September 2017.

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Alfred Russel Wallace notes 8: Wallace's earliest exposures to the writings of Alexander von Humboldt

For many years it has been known that the great German geographer and naturalist Alexander von Humboldt (1769–1859) exercised a considerable influence on Alfred Russel Wallace's (1823–1913) decision to become a travelling naturalist. Until now, however, little attention has been given to the possibility that Humboldt exerted an even greater influence on Wallace's general world-view.

Humboldt's impact on the workers of his time was so extensive that terminology has been invented to describe it: "Humboldtian science". Cannon (1978: 105) identified the approach of Humboldtian science as "the accurate, measured study of widespread but interconnected real phenomena in order to find a definite law and a dynamical cause". Although Wallace himself often identified Humboldt as a prime inspiration for his travelling naturalist activities, there has been little consideration of Humboldt's likely philosophical influence on Wallace's overall world-view (but see Smith 2013, 2016). I should like to review here what evidence there is as to

Wallace's first exposures to Humboldt's writings, helping us to understand what ideas Wallace carried with him as he explored the natural history of the Amazon and Malay Archipelago. There is no indication Wallace ever corresponded with Humboldt, met him personally, or spent any time with any of his immediate intellectual protégés.

Personal narrative of travels, Humboldt's multi-volume treatment of his travels in the New World, appeared nearly simultaneously, starting in 1814, in three languages: German, French and English. Copies of the work in its various incarnations are likely to have been available everywhere in the early nineteenth century, and Wallace wrote in his autobiography *My life* (1905: 232): "Among the works I read here [in Leicester, *c*. 1844], which influenced my future, were Humboldt's 'Personal Narrative of Travels in South America' [Humboldt and Bonpland 1814–1829], which was, I think, the first book that gave me a desire to visit the tropics." Over the span of his career, Wallace referred to the work on numerous occasions, and we can reasonably conclude it did in fact represent a strong influence on him.

Aspects of nature first appeared in 1808 in German and French and went through later editions in those languages, but an English edition was not published until late September 1849.¹ We do not know when Wallace might first have been exposed to this work, but it contains much nature philosophy and could have influenced Wallace's thinking during his field work. He was aware of it during his 1852–1854 period between trips, as it is specifically referred to in his *Narrative of travels on the Amazon and Rio Negro* (1889). In subsequent years, he applied the somewhat awkward term "aspects of nature" several times in his writings, both within general texts and as a chapter subheading, so there is little doubt that overall the book had made an impact on him.

But did he first read it before, during, or after his Amazon adventure? Wallace read French, so in the years before he left for South America he may have read the French edition. In the six months following the Wallace-Bates decision to travel to South America, they spent a considerable time in London, where a copy might have been located, and both Bates and Wallace's sister Fannie were even more proficient in French.

More likely, however, he was first exposed to it in its English edition during his Amazon expedition. Richard Spruce mentioned the work by title in a letter from the Amazon to William Hooker dated 18 April 1851 (and also in some later letters: see Wallace 1908). There is also a letter to Hooker dated 29 January 1850 containing comments that might refer to it (Spruce 1851). If Spruce had received a copy while in the field, he surely would have shared its contents with Wallace. Spruce also arrived in South America before the Sabine edition was released, so a copy may have been sent to him from England. Bates and/or Wallace may also have had a copy sent to them at some point. According to Travels (Wallace 1889) and Notes of a botanist (Wallace 1908), Wallace first met Spruce at Santarem in late October or early November 1849, a bit too early for Spruce to have had an English edition of Aspects of nature. Later that same November, Wallace began his first trip up the Rio Negro, reporting in *Travels* that he had "no books". On 15 September 1851, he returned to Barra (now Manaus) and met Spruce again over a two-week period. Wallace then left for his second trip up the Rio Negro, where in late 1851 he again briefly ran into Spruce at São Gabriel. Spruce apparently had seen Aspects of nature by the last two meetings and possibly shared it with Wallace. A final meeting between the two occurred in late April 1852 at São Gabriel. Thus there is every chance that Wallace had an opportunity to digest the work before most of his second Rio Negro trip – and we can be certain he was familiar with it before he left for the East in 1854. It is also likely that this work, and Cosmos, were in the magnificent library accumulated by Raja James Brooke, Wallace's host in Sarawak from mid-1854 to late 1855.

Cosmos was Humboldt's last major work. The German original appeared in parts beginning early in 1845. The first English translations were published by Baillière, beginning in July 1845, and by Longman in September 1846. Wallace would have been able to see the first installments before he departed for South America, and they are the ones that contain the highest concentration of *Naturphilosophie*. But did he see them? In a letter to Bates dated 28 December 1845² he wrote: "I have heard that 'Cosmos' the celebrated work by the venerable Humboldt supports in almost every particular its [*Vestiges of the natural history of creation* (Chambers 1844)] theories not excepting those relating to Animal & Vegetable life – This work I have a great desire to read but fear I shall not have an opportunity at present ...". Still, there are no direct referrals to it in his published or unpublished writings over the next several years. It seems likely, however, that he would have read it before he left England for the Amazon in the Spring of 1848; Humboldt was one of the most famous writers of the time, and copies would have been available everywhere.

Humboldt's fame meant that everything he published in English achieved wide circulation, and Wallace may well have read other writings, including both books and articles, some of which appeared in major journals Wallace would have had access to while working in both the Neath–Swansea and Leicester areas.³

NOTES

¹ This, according to the 1 October 1849 issue of *Publishers' circular*, more than a year after Wallace and Bates had left for South America. The translation was prepared by Elizabeth Sabine. Only a few months later, in early 1850, a different English translation by E. C. Otté and H. G. Bohn appeared under the title *Views of nature*.

² Item WCP346, Wallace Letters Online: URL http://www.nhm.ac.uk/research-curation/scientific-resources/ collections/library-collections/wallace-letters-online/346/346/T/details.html (accessed 10 May 2018).

³ For bibliographic details of previous notes in this series, including those not published in *Archives of natural history*, see http://people.wku.edu/charles.smith/wallace/writingson_modern.htm (accessed 9 May 2018).

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Received 21 April 2017. Accepted 29 November 2017.

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A memoir of Hugh Miller (1802–1856) by Harriet M. Taylor

A memoir of the Scottish geologist and writer Hugh Miller $(1802-1856)^1$ by Harriet M. Taylor was published in 2002 from a then unidentified typescript found in family papers (Sutherland and McKenzie Johnston 2002: 163–173).² It is here identified as an incomplete copy of a draft or submission for an article published in 1900 under the pseudonym "One who knew him" in the *British weekly* (Taylor 1900). This magazine was aimed at English non-conformists and Scottish Presbyterians, such as members of Miller's own Free Church of Scotland (Brake and DeMoor 2009: 79–80, 456).

The author of the *British weekly* article was Harriet Munro Taylor (1823–1916), eldest daughter of Robert Ross (1792–1878), merchant and bank agent, and his first wife Isabella Joyner³ (*c*. 1791–1830) of Cromarty, Miller's home town (Anonymous 1993: entry 320; Sutherland and McKenzie Johnston 2002: 163; Alston 2006). She knew Hugh Miller from an early age. As a stonemason, he had carved her mother's gravestone, and he later worked in her father's bank. She also attended the private school run by Miller's fiancée Lydia F. Fraser (*c*. 1812–1876). In 1840, she stayed with the now married Millers in Edinburgh, where Hugh edited *The Witness* newspaper. He visited her on returns to Cromarty. In 1854, she married John Taylor (1812–1893), variously Sheriff-Clerk for Cromartyshire, bank agent and farmer at Navity near Cromarty.

Taylor's memoir prompted letters from readers. William Miller (c. 1815-1905)⁴ described (Miller 1900) bringing his fellow geologist James Powrie $(1815-1895)^5$ to see Hugh Miller and his collection, but finding Miller suffering a painful illness. The letter-writer, with hindsight, linked this illness to Hugh Miller's suicide at home at Portobello, near Edinburgh, on the night of 23/24 December 1856. Another correspondent, through her husband, was Janet Waugh (1832–1904),⁶ in 1856 housekeeper to the Reverend George Wight (1817–1900), who was a local Congregational minister, journalist and later author of *Geology and Genesis: a reconciliation* (Wight 1857; Lockley 1976). She recalled seeing Miller the evening before his