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Charles H. Smith

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*Alfred Russel Wallace Notes 8. Wallace's Earliest Exposures to the Writings of Alexander von Humboldt.**

Charles H. Smith, ^a 2018/2021*

^a Professor Emeritus, Western Kentucky University, Bowling Green, KY. Email: charles.smith@wku.edu

* The 2018 originally-published version of this work contained edits designed to make it fit into a 'Notes' section; I now regret permitting this and accordingly present the unreduced version below.

Abstract: For many years it has been known that the 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. Almost no attention, however, has been given to the real possibility that von Humboldt exerted an even greater influence on Wallace's general worldview. In this note, Wallace's probable earliest contacts with von Humboldt's writings are described. *Key words:* Alfred Russel Wallace, Alexander von Humboldt, *Personal Narrative of Travels, Aspects of Nature, Cosmos*

While most of the early individual influences on the thought of Alfred Russel Wallace have long since been identified, at least one possible additional, and important, one has received just about no attention. I have alluded to this matter in recent writings (Smith 2013a, 2013b, 2016, in press), but hope to explore it further in the future. I speak of the great German geographer and naturalist Alexander von Humboldt, whose general impact on the workers of his time was so extensive that terminology has even been invented to describe it: "Humboldtian science" (Cannon 1978). Cannon 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" (p. 105).

Although von Humboldt was often identified by Wallace himself as a prime inspiration for his travelling naturalist activities, it seems that no one but myself has targeted him as a likely *philosophical* influence – that is, on Wallace's overall worldview. I have come to believe that he was probably the *most important* such influence, at least to the extent of giving Wallace a general intellectual direction in his pre-Ternate essay years. In this short note I should like to review what evidence there is as to Wallace's first exposures to von Humboldt's writings. This groundwork is necessary not only in the context of helping us to understand what ideas Wallace carried with him as he explored the natural history of the Amazon and Malay Archipelago, but also as a starting point for a more detailed examination of the link overall.

There is no indication Wallace ever corresponded with Humboldt, met him personally, or spent any significant amount of time with any of his immediate intellectual disciples. Thus, an emphasis on Wallace's reading of Humboldt's writings is called for, and in what follows the most likely encountered of these are discussed serially.

Personal Narrative of Travels

Humboldt's multi-volume treatment of his travels in the New World has had a complicated publication history, but for our purposes it can be identified as having appeared nearly simultaneously in 1814–15 in three languages (in German as *Reise in die Aequinoctial-Gegenden des Neuen Continents*, in French as *Voyage aux Régions Équinoxiales du Nouveau Continent*, and in English as *Personal Narrative of Travels to the Equinoctial Regions of the New Continent*). By that point von Humboldt was already a very famous man, and his reputation largely maintained itself all the way to his death in 1859. Copies of the work in its various incarnations could doubtlessly be found everywhere in the early nineteenth century, and in 1905 Wallace wrote in his autobiography *My Life*: “Among the works I read here [in Leicester, circa 1844], which influenced my future, were Humboldt's ‘Personal Narrative of Travels in South America,’ which was, I think, the first book that gave me a desire to visit the tropics” (Wallace 1905: 1, p. 232). Wallace also refers to this influence in several late interviews, but nowhere does he suggest that it provided him with any philosophical direction. This is not surprising, however, as the work actually contains relatively little philosophizing, being, just as it is named, primarily a narrative of travels that features a variety of factual observations. Nevertheless, over the span of his career Wallace did refer to it on quite a few occasions, and we can at least conclude it represented a strong influence.

Aspects of Nature

Aspects of Nature first appeared in 1808 in German as *Ansichten der Natur* and in French as *Tableaux de la Nature* and went through later editions in those languages, but an English edition was not published until late September 1849 (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 Mrs. Elizabeth Sabine; only a few months later, in early 1850, a different English translation by E. C. Otté and Henry G. Bohn appeared under the title *Views of Nature*. It is interesting to consider when Wallace might first have been exposed to this work, as it contains much nature philosophy and might well have influenced Wallace's thinking during his field work. At the very latest he was aware of it during his 1852–1854 period between trips, since he specifically refers to it in his *Narrative of Travels on the Amazon and Rio Negro*, originally published in late 1853. 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 can be little doubt that overall the book and its messages had made an impact on him.

But when did he actually *first* read it: before, during, or after his Amazon adventure? Wallace read French decently, so it is not out of the question that in the years before he left for South America he had come up with a copy of an earlier French edition. This may initially seem unlikely, but in the six months or so following the Wallace-Bates decision to travel to South America they spent a considerable amount of time in London, where a copy possibly could have been located. Further, Wallace's sister, a teacher, was proficient in the language (and available during that period), as was Bates.

More likely, however, he was first exposed to it, in its English edition, *during* his Amazon expedition. Richard Spruce mentions 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, as they met up on a few occasions and spent some time (a few weeks, in total) together. Spruce also arrived in South America before the Sabine edition was released, so probably he had had a copy sent to him from England – certainly he would have been very interested in obtaining one. So too, for that matter, would have Bates and Wallace, and either or both of them may also have had a copy sent to them at some point (Wallace reports in *Travels* that he had received scientific equipment from England after leaving Pará, so why not a book as well?). According to *Travels and Notes of a Botanist* (Wallace 1908), Wallace first met up with Spruce at Santarem, in late October or early November 1849; Spruce had arrived in Pará on 12 July 1849 and left the city via the Amazon on 10 October, a bit too early to have had an English edition copy of *Aspects of Nature* in his possession at that point. Sometime into November 1849 Wallace left for his first trip up the Rio Negro, a trip during which, as he reported in *Travels*, he had “no books” with which to entertain himself. On 15 September 1851 he returned back downriver to Barra (now Manaus) and ran into Spruce again; they apparently had some good conversations over a two-week period. Wallace then left for his second trip up the Rio Negro, where in late 1851 he again briefly met up with Spruce at São Gabriel, near the mouth of the tributary Rio Uaupés. By these last two meetings Spruce apparently had seen *Aspects of Nature*, and, one guesses, likely shared it with Wallace. A final meeting between the two occurred in late April 1852 at São Gabriel, as Wallace readied his collections for their removal downriver to Barra, and then on to England.

Thus, there is every chance that Wallace had an opportunity to digest the work before his second Rio Negro trip – and, at the very least he was familiar with it before he left for the East in 1854. It is also almost unthinkable that this work, and the next-mentioned *Cosmos*, did not form a part of the famed library accumulated by Rajah James Brooke, who hosted Wallace in Sarawak over a period of eighteen months, mid-1854 to late-1855.

Cosmos

Cosmos was von Humboldt's last major work. It appeared in parts (and was never quite completed, something of a trademark within Humboldt's oeuvre), the first sections of which were published in German and French in 1844 and 1845. English translations were quickly prepared and published, the first, by Baillière, beginning in July 1845, and the next by Sabine starting in September 1846. Wallace would have had a chance to see the first two volumes before he departed for South America, and these are the volumes that contain the highest concentration of naturphilosophie. But *did* he see them? In a letter to Bates dated 28 December 1845 (WCP346, Wallace Online) 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*] 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...”¹ From this one concludes that he was certainly eager to read the new work, at least. But I have been unable to find any certain direct referrals to it in his published or unpublished writings from

the next several years. Still, it seems pretty unlikely that he hadn't 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.

Cosmos continues themes present in *Aspects of Nature*, developing them further. One of these themes, discussed in great detail over dozens of pages in each work, is the interaction of nature with the mind and feelings of humankind. In the Preface to the First Edition of *Aspects* Humboldt writes: "Throughout the entire work I have sought to indicate the unfailing influence of external nature on the feelings, the moral dispositions, and the destinies of man. To minds oppressed with the cares or sorrows of life, the soothing influence of the contemplation of nature is peculiarly precious..." (Humboldt 1849: 1, p. ix). In Wallace's chapter on vegetation in his *Travels on the Amazon and Rio Negro*, he opines: "The sensations of pleasure we experience on seeing natural objects, depends much upon association of ideas with their uses, their novelty, or their history. What causes the sensations we feel on gazing upon a waving field of golden corn? Not surely, the mere beauty of the sight, but the associations we connect with it" (Wallace 1889, p. 308). This argument, reinforced by themes treated in either or both *Aspects* (which Wallace refers to the page before) and *Cosmos*, stands as an adjunct to Wallace's early preoccupation with the "advantages of varied knowledge," a subject he revisits elsewhere in *Travels*, and which is also discussed in both Humboldt works.

Other Works

Von Humboldt's fame meant that everything he published in English achieved wide circulation, and it is not impossible that Wallace found other writings of his to digest. These would have included books, for example *Researches Concerning the Institutions and Monuments of the Ancient Inhabitants of America* (English translation, 1814) and *Political Essay on the Kingdom of New Spain* (English translations, 1811 and 1822), and professional articles, some of which appeared in major journals Wallace probably would have had access to while working in both the Neath-Swansea and Leicester areas.

Meanwhile, it was not only Humboldt's own works that were influencing Wallace's thoughts, but some of those by the former's closest disciples. Wallace was well aware, for example, of the signal writings of Justus von Liebig, the chemist, and botanist Franz J. F. Meyen (Liebig 1840; Meyen 1846), both of whom were Humboldt protégés. Wallace likely took the hints offered by the dedication of Liebig's book to Humboldt, and the more than seventy-five referrals back to Humboldt's oeuvre in Meyen's.

Conclusion

The present note is meant only to consider the timing of Wallace's likely first encounters with Humboldtian science, as opposed to that writer's well-known influence on Wallace's decision to become a natural history collector in the tropics. The latter apparently became a factor in Wallace's life on his reading of Humboldt's *Personal Narrative* in the early- to mid-1840s, but it is not clear just when he began to adopt the older man's philosophical and methodological ideas. By then Wallace had already read Darwin (Darwin 1839; Wallace 1905) and probably Lyell (1830-1833), two other naturalists indebted to Humboldt's method, and within a year or two Liebig and Meyen. He probably saw the first volumes of *Cosmos* before leaving for South America, and the

translated *Aspects of Nature* while in the field. Both of the last two works were also likely available to him in the Malay Archipelago, either during his visits to Singapore, or through the personal library of James Brooke.

A full analysis of the importance of the Humboldtian model to Wallace's work must be left for another occasion, but for the moment its likely significance should be kept in mind in future Wallace studies. At the very least it represented an important starting point for his considerations of the role of ecological station, and at most a central element of his general operating approach to natural science.

Note

¹ As of the date of this letter, the only English edition of *Cosmos* available was by Baillière, and perhaps this was not yet obtainable in the Neath area. Humboldt was not a genuine transmutationist, though from time to time he had touched on the matter. For example, in an article titled "On petrifications" published in the *Edinburgh Philosophical Journal* in 1823 he asks: "Do these types succeed each other from below upwards [in the strata] ... Does the distribution of fossil organic bodies indicate a progressive development of vegetable and animal life upon the globe – a successive appearance...?" (Humboldt 1823, p. 21).

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