
Celebrity in American Society and Science

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The publication of Alexander von Humboldt's first volume of *Cosmos* in 1845 began the remarkable transformation of the Prussian scientist and explorer from a respected naturalist to celebrity intellectual, or in contemporary parlance, a public intellectual. In the minds of most antebellum Americans, Humboldt embodied the prestige of European science. Though not a discoverer or a theoretician, Humboldt was the most influential scientist of the period, at least to laypeople. Humboldt's reputation as an explorer, scientist, and international ambassador of goodwill appealed to free Americans of all walks of life, from mechanics to aspiring scientists and from men of letters to cotton planters. In the 1840s and 1850s, American newspapers carefully followed Humboldt, keeping their readers informed of the great philosopher's health and activities. At the same time, the American public frequently compared scientists in the United States with Humboldt (and the Americans did not always measure up). Of course, Humboldt also had great influence on the American scientific community. Meeting Humboldt became a rite of passage for prominent Americans visiting Europe, especially for aspiring scientists in pursuit of advanced degrees. Even distinguished scientists sought Humboldt's endorsement so that their work would be illuminated in his reflected glory.

In the 1840s and 1850s, Humboldt was a scientific celebrity in the United States, so much so that American newspapers and periodicals recorded his every move, translating his letters, commenting on his health, and swelling with pride when he endorsed any aspect of American science or culture. It would be difficult to overstate the praise lavished on Humboldt by American newspapers and periodicals. "Alexander von Humboldt," *Frank Leslie's Illustrated Newspaper* of November 21, 1857 breathlessly observed, "occupies, by universal consent, the foremost place in the intellectual and scientific

world.” The January 1858 volume of *Emerson’s Magazine* agreed: “No man has, perhaps, ever during his lifetime enjoyed, in the degree that M. Humboldt has the esteem and admiration of his age.” Humboldt’s celebrity was confirmed after his death on May 6, 1859. The *Boston Daily Advertiser* of June 11, 1859 eulogized him by declaring that “the first half of the nineteenth century” was the “Age of Humboldt.”

In the 1840s and 1850s, American editors described Humboldt in a shorthand that revealed his ubiquitous celebrity: the New Orleans *Picayune* of November 20, 1849 simply referred to the “celebrated Prussian philosopher,” the *Charleston Mercury* of May 21, 1853 to the “veteran physicist” [sic] and *Frank Leslie’s Illustrated Newspaper* of January 29, 1859 to the “venerable naturalist.” Despite the fact that Humboldt spent most of his time in Berlin so that his travels in the antebellum era were literary more than corporeal, the *Boston Evening Gazette* of May 21, 1850 asserted in matter-of-fact fashion that “Humboldt is a great attraction wherever he goes.”

Of course, it was the publication of *Cosmos* and its translation into English that first brought Humboldt to the attention of antebellum Americans. The reviewer for the *Louisville Courier* of March 29, 1850 heralded *Cosmos* as “having no rival in any language” and deserving a place in “every respectable library in the world.” The *Louisville Courier* recommended *Cosmos* “to all who love science, or who feel an interest in a physical description of the Universe.” Many Americans, including Senator Daniel Webster took that reviewer’s advice. *Cosmos* was one of the Massachusetts Whig’s favorite works. (Peterson 1987: 401)

The important elements in Humboldt’s celebrity status as reported by American newspapers and periodicals, included his erudition, his vitality despite his advanced age, and his generosity. Antebellum Americans regarded Humboldt as the “Einstein” of his day. The *Providence Daily Journal* of April 30, 1851 called Humboldt the “Nestor of scientific men.” *Emerson’s Magazine* of January 1858 lauded Humboldt as “the Nestor of the modern world of science” and “the prince and dean of contemporary science.” *Emerson’s Magazine* gushed that “the whole world knows the great name [of Humboldt], and the authority of him who bears it is without rival in all the branches of human knowledge.” So extensive was Humboldt’s celebrity that *Frank Leslie’s Illustrated Newspaper* of August 14, 1858 reported on the death of his New World traveling companion, Aimé Bonpland, a French botanist.

Americans took great delight that Humboldt was still actively engaged in scientific inquiry despite being an octogenarian. The *Boston Daily Advertiser* of June 11, 1859 decided that Humboldt’s age was an advantage rather than a hindrance in his scientific pursuits. The *Boston Daily Advertiser* reported that

Humboldt spent his time “keeping pace” with the progress of science, which “his advancing years” and his power of “scientific deduction” allowed him to gain an unsurpassed accumulation of knowledge. *Frank Leslie’s Illustrated Newspaper* of November 21, 1857 marveled that Humboldt’s suite “is filled with contributions from every quarter of the globe, and with volumes in every language, which have been presented to the great *savant* by their authors.” *Frank Leslie’s Illustrated Newspaper* hoped “that Alexander von Humboldt may long be spared [death] to occupy the proud position of the greatest of living men.”

Some antebellum Americans regarded Humboldt’s long career as a distinguished scholar as the archetype of a productive life. *Ballou’s Pictorial Drawing-Room Companion* of January 10, 1857 asserted that Humboldt’s career “is a noble example of a well-spent life, and his remarkable longevity, notwithstanding his severe mental toil, is an encouragement to students.” In a public lecture given in the Smithsonian lecture hall in 1859, Paul A. Chadbourne, professor of chemistry and botany at Williams College, believed that the lives of Humboldt, Isaac Newton, and Georges Cuvier demonstrated the salutary effect of science “to engage, exercise, improve, and complete the faculties of the mind.” (Chadbourne 1860: 7-8)

Other antebellum Americans believed that Humboldt’s long career was more illustrative of his field of study than any special qualities of his own. The *United States Magazine* of October 1851 observed: “It is agreed that philosophers, and men of quiet reasoning, astronomers, naturalists, &c., are long-lived; while poets, novelists and men of excitement are short-lived. Witness a Humboldt and a Dick living to extreme old age, while a Byron and a Sue perish before the midday of their power.” Of course, Humboldt must die some time. Convinced of Humboldt’s greatness, antebellum Americans hoped that science could survive his death. The *Boston Daily Advertiser* of June 11, 1859 trusted that science would not falter with “the extinction of her greatest luminary.”

Humboldt’s willingness to advise aspiring scientists and comment on current events was well known in the Antebellum United States. Indeed, Americans revered him for his generosity almost as much as his erudition and his hard work. An American artist, who sought Humboldt’s advice on the flora and fauna of Central America before going on a scientific expedition there, reported to the *Providence Daily Journal* of April 30, 1851: “I found this great philosopher the most amiable old man I have ever met — in one word, the friend of Man, as of Nature.” As evidence of Humboldt’s interest in helping others, American periodicals reported on the crushing volume of correspondence that the venerable scientist maintained. American estimates of Humboldt have ranged between two thousand and six thousand letters each

year. Humboldt's generosity was legendary. The *Boston Evening Gazette* of May 21, 1850 recounted with manifest hyperbole: "A scientific society never holds a meeting here without receiving some valuable communication from Humboldt; and it always seems to be something new, something which he seems to have reserved for that especial occasion, and never to have given to the world before." In an October 27, 1853 letter, Matthew Fontaine Maury, Director of the National Observatory, informed Francis Lieber, that he found Humboldt to be "a most charming & picturesque old man." (Francis Lieber Papers)

Trading on Humboldt's celebrity as the leading intellectual of the day, Americans adduced his endorsement, real or imagined, to support everything from dubious scientific contentions to politicians. The *Charleston Mercury* of May 21, 1853 reported Humboldt's debunking of the purported magnetic basis for spiritualists' apparent ability to rotate tables. Advocates of dubious claims found that linking Humboldt's name to their assertions was an effective rhetorical strategy in the antebellum United States. The *Savannah Daily News* of July 19, 1851 reported that the *Washington Union* had been taken in by a false story that Humboldt had seen Sirius rise and fall suddenly. The *Louisville Courier* of September 28, 1848 adduced Humboldt's "keen insight" regarding the "character of General [Zachary] Taylor," the Whig candidate for president in the Election of 1848. To counter Democratic charges that Taylor was a hapless battlefield commander during the Mexican-American War, the *Louisville Courier* cited Humboldt's estimate that Taylor was an outstanding general. The *Louisville Courier* ranked Humboldt as one of two "military critics that are unrivalled in Europe."

So great was Humboldt's celebrity in the sciences that Americans, both nonscientists and scientists alike, related American progress in science to Humboldt. So successful was Joseph Henry in using the Smithsonian Institution to support the diverse range of the natural, physical and social sciences that *Scientific American* of April 26, 1851 ranked the Smithsonian Secretary with Humboldt as exceptions to the rule that there were very few scientists able to acquire a profound knowledge of more than one science. Even high school students and women were aware of Humboldt's scientific celebrity. The New Orleans Boy's High School established the "Humboldt Nat. Hist. Society." (Thomas Kelah Wharton Diary) Jane H. Pease and William H. Pease found in their account of "Antebellum Charleston" in the second volume of the *Encyclopedia of American Cultural & Intellectual History* that the most intellectually engaged women in Charleston, S.C., read Humboldt.

Humboldt's celebrity in the antebellum United States extended beyond science. In 1850, the steamer *Humboldt*, part of the United States and Havre line of mail steamers, was launched with great fanfare. *Gleason's Pictorial*

Drawing Room Companion of May 24, 1851 predicted, “this steamer, with superior power [to the steamer which held the trans-Atlantic record] has a chance of astonishing the world.” Frederick Henry Wolcott, a New York dry goods merchant, noted in his diary on October 05, 1850 that “the *Humboldt*... was launched today.” (Frederick Henry Wolcott Diary) In a revealing coincidence of Humboldt’s virtual ubiquity in antebellum America, J. Johnston Pettigrew, who met Humboldt in Berlin in 1851, reported in a February 15, 1853 letter that returned to the United States aboard the steamer *Humboldt*. (Pettigrew Family Papers) Regrettably, the steamer *Humboldt* came to grief in 1857. *Frank Leslie’s Illustrated Newspaper* of March 21, 1857 reported that the *Humboldt* collided with the steamer *Belfast* on the Mississippi River, and sank.

So great was Humboldt’s celebrity in the antebellum United States that American scientists regularly alluded to Humboldt to explain their esoteric work to the general population. Joseph Henry, the secretary of the Smithsonian Institution and a leading American physicist, defended the Smithsonian’s support of the seemingly unimportant science of terrestrial magnetism on Humboldtian grounds. “Each branch of knowledge is connected with every other,” Henry explained, “and no light can be gained in regard to one side which is not reflected upon all.” (Smithsonian Institution 1859: 13-15, 21) As an example of this relationship, Henry cited the correspondence between sunspot frequency and large magnetic disturbances, which implied that magnetic storms caused sunspots. Humboldt used this classic example of the interconnectedness of the physical world in the second volume of *Cosmos* (1851). (Hufbauer 1991, 46)

Humboldt’s success in reaching the average American invariably set the standard for other attempts at scientific popularization. In 1857, Louis Agassiz, professor of natural history at Harvard College, totaled twenty-five hundred subscribers for his *Contributions to the Natural History of the United States*. Heartened by this success, Agassiz boasted to Senator Charles Sumner, Republican of Massachusetts, that “when my subscription list reaches Europe my friends will not credit their own eyes. I do not think that Humboldt himself could in all Europe put together such a subscription for so expensive a work.” (Lurie 1960, 197-199)

Of course, Humboldt was enormously influential in the American scientific community in the antebellum era. (Cannon 1978, 74-77) As Kurt R. Bierman noted in his account of Humboldt in the sixth volume of the *Dictionary of Scientific Biography*, he pioneered studying a variety of phenomena in what today would be called climatology, botany, ethnography, geography, geology, geomagnetism, meteorology, mineralogy, oceanography, and zoology on a continental and even on a global scale looking for quantita-

tive mathematical relationships and interrelationships through the use of accurate measurement and “iso-maps.” Matthew F. Maury, director of the National Observatory, and the various antebellum exploring expeditions took Humboldt as their model. (Bruce 1987, 183) Moreover, the Smithsonian Institution sponsored Humboldtian research programs in meteorology, geomagnetism, geography, ethnology, and other fields of inquiry. (Smithsonian Institution 1847: 190-207; Fleming 1990, 61-62, 69-70; Hinsley 1981, 37)

In the antebellum era, it was a rite of passage for aspiring American scientists to go to Europe to receive advanced training, unavailable in the United States. For many budding American scientists, such as J. Johnston Pettigrew, Benjamin A. Gould Jr., Oscar Lieber, and others, an audience with Humboldt was an important part of this rite. In a May 26, 1851 letter, J. Johnston Pettigrew, a South Carolina protégé of Matthew Fontaine Maury in the National Observatory, described his visit with Humboldt, “the boast of German science.” But the South Carolinian was more impressed by Carl Ritter, whom he regarded as “a philosopher of commanding intellect and through information, coupled with the most unassuming simplicity and absence of political rabidness.” Perhaps, Pettigrew’s compliant about Humboldt’s politics was an allusion to his opposition to slavery. Pettigrew was a proud slaveholder who would later serve the Confederacy. Nonetheless, Pettigrew appreciated Humboldt’s “kindness to myself and other young men similarly placed,” but “the Courtier in him quite conceals the Philosopher, and the absence of affection or even little vanity... I should not reckon among his virtues.” (Pettigrew Family Papers; Wilson 1990, 44)

Most aspiring American scientists had better luck with Humboldt. Indeed, they sought an introduction to Humboldt. In an April 1, 1848 letter, Edward Everett assured Josiah Bigelow, a young physician, that he was sending letters of introduction to Humboldt, William Whewell, and other scientists so that the latter could “see all the Scientific world.” (Edward Everett Papers) In most cases, Humboldt gave them letters of introduction to the leading scientists of Europe. In 1845, Humboldt introduced Benjamin A. Gould Jr., a Massachusetts astronomer, to Carl Friedrich Gauss, the great mathematician. (Bruce 1987, 21) In a March 11, 1850 letter to his parents, Oscar Lieber, a young geologist from South Carolina detailed how Humboldt introduced him to Charles Lyell, the uniformitarian geologist. (Francis Lieber Papers) After Humboldt praised one of Lieber’s publications, John S. Preston wrote to the geologist’s father on February 18, 1859: “In science, Humboldt’ dicta are of more authority than the decrees of kings or the diplomas of learned societies.” (Francis Lieber Papers) At the same time, Humboldt wrote letters of introduction for European scientists going to the United States. In a March 9, 1854 entry in his Locked Book, Joseph Henry noted that Christian H. F.

Peters, a German astronomer, came to him with a letter of introduction from Humboldt.

Even distinguished American scientists, such as Benjamin Silliman, Matthew Fontaine Maury, and others, took delight in visiting Humboldt and basking in his reflected glory. Benjamin Silliman, professor of chemistry at Yale and editor of the *American Journal of Science*, reported to the *United States Magazine* of May 15, 1854 of his 1851 meeting with Humboldt. Silliman was especially proud that the venerated Prussian philosopher “alluded in a flattering manner to our progress in knowledge in the United States, and to the effect which *The American Journal of Science and Arts* had produced in promoting it.” Matthew Fontaine Maury’s attempt to compile a comprehensive chart of ocean currents — a Humboldtian project — received a much-publicized endorsement from Humboldt, which was printed in the *Washington Union* of December 3, 1847. Humboldt’s letter was the culmination of an almost decade-long campaign by Maury. The *Washington Union* emphasized the manifest utility of Maury’s work in reducing the time of navigation and then copied an extract of Humboldt’s letter praising its scientific uses. After visiting Humboldt in 1853, Maury parlayed his endorsement into receiving the Kosmos Medal from the King of Prussia and glowingly reviews in the United States. (Bruce 1987, 25, 183)

Of course it was not necessary to actually visit Humboldt to bask in his reflected celebrity. Minor American scientists, such as Lorin Blodget, as well used Humboldt’s endorsement of their work to attract attention and gain credibility. Of course, these scientists ostensibly sought Humboldt’s advice, but they hoped to receive his commendation as well. Lorin Blodget, an American climatologist in the employ of first the Smithsonian Institution and then the U.S. Army Medical Department, sought Humboldt’s endorsement of his *Climatology of the United States and the Temperate Latitudes of the North American Continent* (1858). He received it in a September 7, 1856 letter from Humboldt. (James D. B. DeBow Papers) The reviewer of Blodget’s book in the *North American Review* of October 1858 approvingly quoted from Humboldt’s endorsement.

Humboldt’s praise could help to rally support for esoteric scientific ventures that might have otherwise languished. Humboldt’s endorsement of James M. Gilliss’ 1849-1852 astronomical expedition to Chile, along with the support of most of the American scientific societies, convinced a tight-fisted Congress to appropriate five thousand dollars so that Gilliss, an astronomer in the National Observatory, could observe the transit of Venus to better determine the Astronomical Unit, the distance between the earth and the sun. (Rasmussen 1954, 104; Harrison 1955: 183-184; Bruce 1987, 180-181) In a March 1850 letter, Johan Gottfried Flügel informed Charles Wilkes that

Humboldt observed, “it is uplifting to follow the magnificent development of the scientific sense in the United States.” Humboldt was astonished that the U.S. government would sponsor a 3-year expedition merely because a professor in Marburg advocated it, especially as the governments of Europe ignored the call. (Charles Wilkes Papers)

Gilliss’ complaint illustrated that he, like many antebellum Americans, regarded Humboldt as beyond comparison with any mere American scientist. Humboldt’s celebrity reached beyond the American scientific community to the broader reading public. Americans were convinced of his genius, his work ethic, and his generosity. They followed his travels. They looked to him as an authority on virtually all matters, large and small, scientific and non-scientific. They longed for his endorsement of American science. And they heralded him as the embodiment of European science. Indeed, Humboldt’s celebrity grated on some scientists in the United States, despite the letters of introduction and endorsement that he lavished on the American scientific community. Although most American scientists thought well of Humboldt, and some pursued Humboldtian research, his celebrity allowed several scientists to use his name as a convenient put-down for overly ambitious or conceited rivals. In the course of a dispute over credit for meteorological work done in the Smithsonian Institution with Lorin Blodgett, Henry referred to his erstwhile associate as “the second Humboldt” in a November 11, 1854 letter to Alexander Dallas Bache¹. (Joseph Henry Papers) In a May 8, 1854 letter from James M. Gilliss, an astronomer in the National Observatory, to George P. Marsh, Henry received the same treatment. Gilliss objected when Benjamin S. Peirce, professor of astronomy at Harvard College, declared that Henry was the Humboldt of American science in his 1855 presidential address before the American Association for the Advancement of Science. Gilliss protested: “The Humboldt indeed! A man whose knowledge is at best a limited one on Electricity & Magnetism alone!” (George P. Marsh Papers)

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1. Thanks to the Marc Rothenberg and the rest of the staff of the *Joseph Henry Papers* for bringing these quotes to my attention.

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