

## **Book Review**

The lost world of James Smithson. Science, revolution, and the birth of the Smithsonian, by Heather Ewing. New York: Bloomsbury, 2007, 432 p., \$29.95, hardcover (ISBN-10 1-59691-029-1)

The Smithsonian Institution, one of the greatest museum and research complexes in the world, traces its origins back to a secondary clause in the will of James Smithson (née James Louis Macie), an Englishman who had never set foot in the United States. What do we know of this enigmatic benefactor who left his entire fortune to found in Washington "an establishment for the increase and diffusion of knowledge among men"?

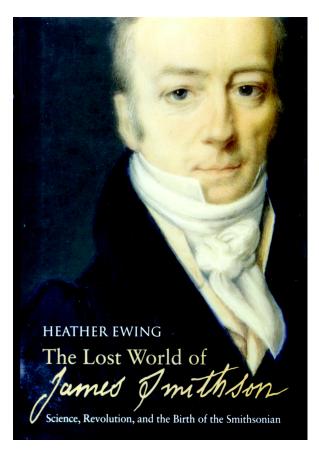
Up till now, Smithson has remained largely a shadowy figure, for the fire of January 24, 1865 that ravaged the Smithsonian Castle completely destroyed all his writings—some 200 unpublished papers, the records of his laboratory experiments, and his scientific correspondence. Also consumed in the flames were his personal effects, including his extensive mineral collection, which included "a valuable suite of meteoric stones, which appear to be specimens of most of the meteorites which have fallen in Europe during several centuries (p. 184)."

In her new book, Heather Ewing gives us the fullest picture to date of James Smithson. She accomplished this by such means as combing through numerous libraries and archives in Britain, Europe, and the U.S.; by examining the papers and diaries of his relatives and colleagues; by studying the marginalia he scribbled in his books; and by going through his existing bank records, to glean information about his numerous travels.

The picture of Smithson that emerges is nothing short of remarkable: "[A] noble, famous father [Hugh Smithson—later Hugh Percy—the first Duke of Northumberland], a wild, theatrical seductress of a mother, an illegitimate secret birth [his father never formally recognized him], disputed ancestral lands, and untold family lawsuits and countersuits, lasting years (p. 45)."

From the time of his undergraduate years at Oxford, he exhibited enormous exuberance, talent, and ambition. Believing that labor for the increase and diffusion of knowledge constituted man's highest calling, Smithson devoted himself to the study of chemistry, an exciting field in the eighteenth century which held out great hope for the happiness of man and the betterment of society.

Smithson's friends and colleagues form a virtual who is who of European science in the late eighteenth century,



including such notables as William Thomson, James Hutton, Henry Cavendish, Humphry Davy, William Hyde Wollaston, Joseph Black, Charles Greville, and Richard Kirwan. He was an early member of the Society for Promoting Natural History and the Coffee House Philosophical Society, and was elected into the Royal Society in 1787; at age twenty-two, he was the Royal Society's youngest member.

Ewing's account of Smithson examines his first scientific tour, a journey in 1784 to Staffa, a remote island in the Hebrides off the west coast of Scotland; his first travels on the Continent; and his Grand Tour of 1791–1797, spent mostly in Paris, Italy, and Germany. He was in Florence when Mt. Vesuvius erupted spectacularly on June 15, 1794. On the next day, a very curious event occurred—following the appearance of a fast-moving white cloud emitting smoke and sparks, several detonations like canon fire were heard; the cloud turned red, and a shower of some 200 small stones (the largest weighing about 3.5 kg) rained down on Cosona, a small town near Siena.

1698 Book Review

Smithson immediately went there, studied the strange black stones that had been collected, and sent a description of his findings to Cavendish back in London to help spread the word of this remarkable event (unfortunately, this letter is now lost). There was, naturally, wide speculation as to where the stones had come from. Some felt they had been ejected from Vesuvius; others, like William Thomson (who had left Oxford under the cloud of scandal and was now living in Naples), speculated that they had been thrown from a neighboring Tuscan volcano.

The Siena fall, which was observed by a large number of persons from several European countries, has come to play an important role in the development of the science of meteoritics. Over the next few years, some other notable falls were seen: Wold Cottage, Yorkshire, in 1795; Benares, India, in 1798; and, famously, a shower of nearly 3,000 stones at L'Aigle, Normandy, in 1803. Siena stands at the head of these falls; despite the controversy over the nature of the stones, there was a universal agreement that they had indeed fallen from the sky. This initiated a period of transition from skepticism about meteorite falls to the modern view of their acceptance.

Given Smithson's strong interest in mineralogy, it was natural for him to join other members of the scientific community in taking a serious interest in meteorites. Some, like Thomson, Father Ambrogio Soldani, and Abbot Domenico Tata, were directly involved Siena in investigations. Other scientists making important contributions to meteoritics at that time included Edward C. Howard, Jean-Baptiste Biot, Martin Klaproth, and Fleuriau de Bellevue. Smithson's friendship with these investigators would have made it possible for him to obtain specimens from them; it seems likely that his suite of meteorites, "specimens of most of the meteorites which have fallen in Europe during several centuries," was amassed in this way.

Ewing discusses in detail how Smithson was influenced by the events and ideas of his day. The revolutions and wars that were taking place in Europe affected not only his travels, but his very safety. Although he might have had a playful time with the bumbling undercover French policeman who shadowed him in Strasbourg, he felt his very life was in danger when later imprisoned in Hamburg. He and his friends believed that through the careful accumulation of observation and fact, they could divine natural law. His meticulous work

in chemical analysis was firmly rooted in the belief that this was the best way to understand the mineral kingdom.

Ewing's treatment of Smithson's science is thorough, but she carefully avoids a hagiographic approach. She points out that he made no ground-breaking discoveries, published no great scientific tome, and made no lasting mark on how the pursuit of science was conducted. "Time has moved on, science moved forward, and the bit players standing at the margins have begun to recede. Although they commanded the respect and admiration of their colleagues in their day, history has no room for them. Smithson stands for many of them (p. 314)."

Ewing ends her book with an examination of how Smithson came to write his unorthodox will, and the more commonly known details of Richard Rush's trip to London to secure the Smithson money, the debates in Congress over the nature of the new institution, and the role played by Joseph Henry, the Smithsonian's first secretary, in shaping the multifaceted Smithsonian into the kind of institution it is today.

Perhaps the most discerning aspect of Ewing's treatment of Smithson is the poignant picture she paints of how he lived in two worlds—the world of patronage and the world of science. Throughout his entire life, Smithson was unable to relinquish a deep-seated need for recognition of the fact that he was the son of the first Duke of Northumberland. Although he lived his life as a well-born gentleman and patron, he nevertheless felt there was an elite social world that remained forever just beyond his reach. And in the world of science, he found that the gentlemanly circles he was traveling in were giving way to the domain of professional scientists. As Ewing insightfully notes, "He seems to have straddled these two worlds, never able fully to inhabit either (p. 348)."

Ewing's biography of Smithson is superb—it is thoroughly researched, fully documented, sensitively portrayed, and beautifully written. Filling a much-needed gap, it is an important addition to the history of science, institutional history, and eighteenth-century biography.

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