



Bust of Hugh Miller in the Hall of Heroes, National Wallace Monument, Stirling, Scotland.

Hugh Miller (1802–1856): Scottish Geologist, Popular Writer, and National Hero

*Kevin Ray Evans, Dept. of Geography, Geology, and Planning,
Missouri State University, Springfield, Missouri 65897, USA;
kevinevans@missouristate.edu*

INTRODUCTION

It may not surprise you that one of eighteen busts in the Hall of Heroes at the National Wallace Monument in Stirling, Scotland, is the likeness of a famous geologist, except it is not James Hutton, Roderick Murchison, nor Charles Lyell—it is a bust of Hugh Miller. As an American traveling through Scotland, I discovered the profound reverence bestowed on the memory of Hugh Miller, a man who brought colorful observations, as well as interpretations, from his geologic explorations to the common man in newspaper serials and books. He was among the first popular and prolific science writers to promote the nascent field of geology. He gave it credibility and soothed tensions that developed between “anti-geology” biblical literalists and scientists. He wrote, “Let me qualify myself to stand as an interpreter between nature and the public; while I strive to narrate as pleasingly and describe as vividly as I can, let truth, not fiction be my walk ...” (Miller, 1840, p. 438).

EARLY LIFE

Hugh Miller was born on the Old Red Sandstone of the Black Isle in Cromarty, Scotland. The thatch-roofed, long, low, two-story house of his birth and early childhood stands on Church Street. It currently houses the Hugh Miller Museum, designated a

National Trust for Scotland. Miller was five years old when his father, a ship captain, was lost at sea (Miller, 1840). He and his young sisters were raised under austere conditions by his widowed mother, her unmarried sister, and his uncles Sandy and James. His education was not without troubles, involving obstinacy in the face of authority and altercations with fellow students. Yet, equipped with a keen intellect, young Hugh was an avid reader and precocious with a willful, wild, and good-natured mischievousness. His uncle Sandy guided his studies and instructed him in reasoning and the nuances of the natural world around him, so that even as a child he began to collect rocks and fossils and developed a habit of making careful, thorough observations. These were the roots of a common man, not a gentleman scientist.

His mother remarried, and in 1820 at age 18, Miller apprenticed as a stonemason with his stepfather’s brother. It was in the rocks of the Black Isle quarries, and between Cromarty and the Sutors, twin buttresses that guard the south entrance to Cromarty Firth, that Miller visited caves and collected fossil fish and eurypterids from the Devonian Old Red Sandstone and ammonites from Jurassic exposures near Eathie. He wrote (Miller, 1840, p. 163), “Who, after even a few hours in such a school, could avoid becoming a geologist?” Miller worked among stonemason crews building houses at Conon Bridge and Gairloch in Wester Ross. In 1824–1826, he traveled to Niddrie Woods, near Edinburgh, as a journeyman. Tragically, he was afflicted with the “stonecutter’s malady,” silicosis, and weakened lungs would plague him throughout his life. He recuperated from acute symptoms at Cromarty and Inverness, threw off an earlier skepticism of faith, and continued studies of geology. To make ends meet, he engraved headstones, wrote articles and poetry for local newspapers, and produced a volume of Scottish folklore (Miller, 1835). From humble beginnings, he never lacked ambition. He ventured into bookkeeping for a bank to offer the station in society that he felt his fiancé and her family could accept. In 1837, he married Lydia Mackenzie Falconer. With the loss of an infant, and unhappy in his career, Hugh and Lydia moved to Edinburgh to start anew.

THE WITNESS AND GEOLOGIC WRITINGS

In 1840, Hugh Miller became chief editor and writer for *The Witness*, a newspaper that promoted separatist sectarian views,



and it also provided an outlet for narratives of his adventures. As a well-read, self-taught geologist, his explorations of the Scottish Highlands and islands were subjects of a series of articles that became books, like *The Old Red Sandstone or, New Walks in an Old Field* (Miller, 1841) and several others (Miller, 1849, 1857a, 1857b). Miller became a celebrity.

Portrait of Hugh Miller by Robert Adamson and David Octavius Hill, ca. 1843–1847, National Galleries of Scotland (<https://www.nationalgalleries.org/art-and-artists/67146/hugh-miller-1802-1856-geologist-and-author-c->).

Miller corresponded with famous contemporaries Louis Agassiz and Roderick Murchison, sharing fossil fish collections with the former. Agassiz and others named genera and species in his honor. He was a friend of geologist Dr. John Grant Malcolmson of the Geological Society of London and amateur fossil collectors Robert Dick, a baker from Thurso, and Patrick Duff, town clerk of Elgin. Miller's acumen is encapsulated in a sculptured inscription at the Hugh Miller Museum, "Learn to make a right use of your eyes." As an example, he noted in *The Cruise of the Betsey* (Miller, 1857b, p. 431),

I observed scattered over the beach, in the neighborhood of the lead mine, considerable quantities of the hard chalk of England; and, judging there could be no deposits of the hard chalk in this neighborhood, I addressed myself on my way back, to a kelp-burner engaged in wrapping up his fire for the night with a thick covering of weed, to ascertain how it had come there. "Ah, master," he replied, "That chalk is all that remains of a fine large English vessel, that was knocked to pieces here a few years ago. She was ballasted with the chalk; and as it is a light sort of stone, the surf has washed it ashore from that low reef in the middle of the tideway where she struck and broke up."

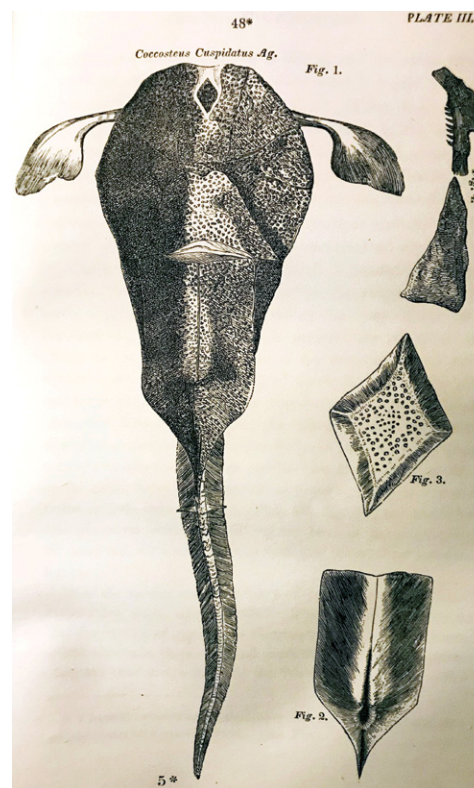
Like many of his contemporaries, Hugh Miller was a man of faith, but one who did not struggle in reconciling evidence from the natural world with the notions and culture of Christian-centric Victorian Britain. He considered fossils in a pre-Darwinian view as manifestations of earlier creations, and he accepted the idea of deep time, but not without biblical-literalist detractors. Miller was a man of conscience. He supported the rights of common folk and was a central character in the Disruption of 1843, a historic rift in the Church of Scotland that saw founding of the Free Church. Many of his compatriots viewed this movement as a step toward ecclesiastical democratization.

SUICIDE

The legacy of Hugh Miller is bittersweet. Despite his accomplishments and influence on geology and the church, around midnight on the eve of 24 December 1856, at Shrub Mount his home in Portobello, he committed suicide with a gunshot to his chest. In the suicide note, he expressed emotionally an unbearable burning pain in his head with a mysterious reference, "I must have walked." He asked forgiveness and bade farewell to his family. In recollections of his last days, to his family, he spoke of his increasing cognitive dysfunction; to a close friend, he described hallucinations. Despite published accounts of a posthumous medical examination, we only can speculate on the full circumstances surrounding his death. He wrote of dark times in his earlier stonemason years; others mentioned his obsession with thwarting theft from his collections at Shrub Mount (Swiderski, 1983; Campbell and Holder, 2005). Hugh Miller was buried in Grange Cemetery in Edinburgh, but in Cromarty Cemetery, a statue of Hugh Miller stands atop a 15-m column erected in commemoration of his life and work. He was a favorite son of his community, a common man, and a hero of Scotland.

In honoring great geoscientists, we mustn't ignore the difficult parts. While his writings expressed the depth of his passions and compassion, Hugh Miller had human frailties.

A lesson may be learned in acknowledging that even brilliant, self-made individuals are susceptible to mental illness and suicide. In 2017, ~47,000 people committed suicide in the United States (*USA Today*, 2018; American Foundation for Suicide



Coccoosteus cuspidatus collected from the Old Red Sandstone by Miller, described and illustrated by Louis Agassiz, and published in Miller (1841).

Prevention, <https://afsp.org/about-suicide/suicide-statistics/>). It is the 10th leading cause of death, and the third leading cause of death among young people in the U.S. The rate of suicide, 14 in 100,000, is rising. Suicide has touched many of our lives and families; it is preventable. If you or someone you know is at risk of suicide, you can find help at the National Suicide Prevention Lifeline (<https://suicidepreventionlifeline.org>) or call +1-800-273-8255, available 24 hours every day.

REFERENCES CITED

- Campbell, I., and Holder, J., 2005, Hugh Miller's last house and museum: The enigma of Shrub Mount, Portobello: Architectural Heritage, v. 16, no. 1, p. 51–71, <https://doi.org/10.3366/arch.2005.16.1.51>.
- Miller, H., 1835, Scenes and legends of the north of Scotland; or, the traditional history of Cromarty: Edinburgh, Adam and Charles Black, 429 p.
- Miller, H., 1840, My schools and schoolmasters; or, the story of my education: Edinburgh, Thomas Constable, 562 p.
- Miller, H., 1841, The Old Red Sandstone; or, new walks in an old field: Edinburgh, John Johnstone, 275 p.
- Miller, H., 1849, Footprints of the creator; or, the *Asterolepis* of Stromness: London, Johnstone and Hunter, 313 p.
- Miller, H., 1857a, The testimony of the rocks; or, geology in its bearing on two theologies, natural and revealed: Edinburgh, Thomas Constable, 500 p.
- Miller, H., 1857b, The Cruise of the Betsey or, a summer ramble among the fossiliferous deposits of the Hebrides; with Rambles of a geologist or, ten thousand miles over the fossiliferous deposits of Scotland: Edinburgh, Thomas Constable, 486 p.
- Swiderski, R.M., 1983, Hugh Miller's walk: Science, folklore, and suicide: Soundings: An Interdisciplinary Journal, v. 66, no. 2, p. 174–188.
- USA Today Editorial Board, 2018, Suicide kills 47,000 men, women and children a year. Society shrugs: USA Today, 28 Nov. 2018, <https://www.usatoday.com/story/opinion/2018/11/28/suicide-kills-45-000-annually-society-shrugs-editorials-debates/1661312002/> (last accessed 28 Nov. 2018).