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How America's Leading Hydrographer Helped Found The National Geographic Society

Posted by [Cathy Hunter](#) on June 27, 2012

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The thirty-three founders of the National Geographic Society were an adventurous and accomplished group. They included scientists, explorers, a journalist and a superintendent of the National Zoo. In recognition of the National Geographic Society's upcoming 125th anniversary [this series](#) takes a look at their stories.

By Mark Collins Jenkins



Henry Mitchell

Despite appearances—he “continued to dress in the style of his time, changing but little with fashion”—Henry Mitchell was a charming man with the gift of conversation and a sense of humor. Though the details of his profession—hydrography—may have been lost on his drawing-room friends, his status among his peers could not have been higher. In his prime, Mitchell was one of the most respected figures in the U.S. Coast and Geodetic Survey, oldest of the government's scientific bureaus. And as such, he was one of the principal founders of the National Geographic Society.

When Henry was barely 17 and living on Massachusetts's Nantucket Island, his sister, twelve years his senior, was awarded a gold medal by the King of Denmark.

It was not surprising, perhaps, to a scientifically-inclined family who possessed a complete astronomical observatory on the roof of their house that Maria Mitchell could win an international competition to discover comets too faint to be seen by the unaided eye. Henry's father, William, was a distinguished astronomer and also one of the Overseers of Harvard. The famous poet John Greenleaf Whittier was a family friend, and Henry's mother was first cousin to the scientist-statesman, Benjamin Franklin.

Nor was remote Nantucket, where Henry was born on September 16, 1830, a surprising place for science to flourish. It was an “elbow of sand,” according to Herman Melville, “an ant-hill in the sea”—but it was an anthill made busy by whaling. In the 19th Century, Nantucket whalers were ranging the globe, providing impetus to the study of navigation. Yet Henry, unlike his father and sister, did not opt to study the stars but rather the shoals—shoals of sand gathering beneath the sea, unseen and poorly understood, that were a menace to navigation. At 19, foregoing higher education, he went to work. Whereas for Melville, a whaling ship was “my Yale College and my

Harvard,” for Henry Mitchell, it would be the U.S. Coast Survey.

In 1807, President Thomas Jefferson had established a Survey of the Coast, which became a busy hive of activity. Into a bit of everything, from astronomy to geodesy to meteorology to the keeping of official weights and measures, it had grown in many directions because it had no real rival except for the Army's Topographical Engineers and the Navy's small Depot of Charts and Instruments.

When young Mitchell joined, the Survey's Superintendent was vigorously pushing forward this charting of coasts, harbors, tides, and currents. It meant that the Survey needed hydrographers, surveyors of rivers and seas, and so that's what Mitchell became, with his first major assignment off the sandy shores of home—Nantucket.

He quickly proved himself more than adept at hydrography; he demonstrated a kind of genius for the work. Unsatisfied with the equipment at hand, he devised new tide meters and other ingenious devices for measuring subsurface currents, an inventiveness that would mark the rest of his career. Soon Henry was expanding his work to include neighboring coasts and waterways, and in 1856, he was assigned the most important seaport of all, New York Harbor.

The poet Walt Whitman, leaning on the rail of the Brooklyn ferry, marveled at the “numberless masts of ships, and the thick-stem'd pipes of steamboats” that crowded Manhattan's shorelines. Schooners, sloops, lighters, barges, cargo vessels, clipper ships bound to or from the China Trade, oceangoing paddlewheel steamers from Liverpool or Le Havre—all rode the “scallop-edg'd waves” of the flood tide that bore down through Long Island Sound and around Sandy Hook. As it crossed into New York Harbor, this oncoming tide met the charging flow of the Hudson and East Rivers, making for a complex arena of battling currents and shifting shoals. There could not be a greater challenge for a hydrographer still in his mid-twenties.

Mitchell studied the tides of New York Harbor for nearly four years, and as a result produced more reliable tide tables, a boon to commerce. He also managed to elucidate many of the dynamics that had molded the nearby coasts and shorelines. This double approach, improving practical hydrography on the one hand while adding to the sum of scientific knowledge on the other, would be his hallmark in the years to come.

From Boston to the Delaware River to the North Carolina Sounds, where, during the Civil War, he aided the blockade by surveying Oregon and Hatteras Inlets—Mitchell throughout the 1860s was the hydrographic master of a great swath of the American shore. Hydrography was more than ever in demand. Following war's end, ports and harbors were once again expanding, world commerce was growing, and the ships that carried its freight were getting larger. European engineers had a long tradition of hydrographical work, and so in 1868 Mitchell embarked on a voyage to Europe where he studied canals, dykes, and harbors. The highlight, however, of his tour was a side trip to Egypt, where the Suez Canal, one of the engineering marvels of the age, was nearing completion. Count Ferdinand de Lesseps himself, the vibrant, colorful, larger-than-life Frenchman who had directed the work, personally escorted Mitchell about the works.

By the late 1880s, Washington had become the nation's city of science, but unhappily the Coast Survey was fighting for its existence. Mismanagement had crept in while the Survey's cross-town rival, the Navy's Hydrographic Office, had grown powerful; on the strength of its superb Pilot Charts, they hoped to take over all coastal mapping functions. Meanwhile, the U.S. Geological Survey, an amalgamation of the bickering Western Surveys of the '70s, had become under [John Wesley Powell's](#) inspired leadership a scientific colossus, and wanted to wrest control of interior mapping from the Coast Survey. What's more, the Cleveland Administration, determined to reform the civil service, had been slashing appropriations to scientific bureaus, leaving them to fight bitterly for the remaining scraps.

Therefore, in early January, 1888, recipients of a certain invitation announcing a meeting to discuss the establishment of a society for “the increase and diffusion of geographical knowledge”—would have immediately recognized the import of the six names that were on the invitation. There was the wealthy Gardiner Greene Hubbard, a patron of science, and General A.W. Greely, the Arctic explorer; but there was also Almon Thompson and [Henry Gannett](#) of the U.S. Geological Survey, John Wesley Powell's chief lieutenants. Then there was John Russell Bartlett, chief of the Navy's Hydrographic Office. And finally there was Henry Mitchell, perhaps the most respected man in the beleaguered U.S. Coast and Geodetic Survey (as it had recently been renamed). What's more, they all seemed to be coming in peace.

Hands reaching across bureaucratic trenches. Whatever it might have portended, the aspirations those men shared with the others who joined them on the evening of January 13, 1888, resulted in the founding of the National Geographic Society. And one of the first things the new organization did was institute a program of lectures covering the work of these various government scientific bureaus, lectures delivered before people bonded into a fellowship of mutual interests and shared purposes.

Mitchell was prominent in every step of its initial formation, signing the original invitation and Certificate of Incorporation, and at the Society's first meeting, he was elected one of eight members comprising its first Board of Managers.

But then something happened. Just what, it is hard to say. Although Mitchell was only 57, it appears to have been a health crisis of some sort. Whatever it was, it quickly led to his resignation as a Manager and, what's more, to his resignation from the Survey as well. He retreated to Nantucket, and when the following year President Benjamin Harrison offered him the superintendency of the Survey, still one of the most prominent jobs in government science, “his health did not permit him to assume the burdens of the office.”

The rest of his life passed uneventfully, his career essentially over. His only child, a daughter, had married and, it was at her house in New York City on December 1, 1902, at age 72, that he finally slipped into the deep, far beyond the reach of any tide.

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