Richard Harlan Journals 1816-1817, 1833 Mss.B.H228

American Philosophical Society 2/2003 105 South Fifth Street Philadelphia, PA, 19106 215-440-3400 manuscripts@amphilsoc.org

Table of Contents

Summary Information	3
Background note	
Scope & content	
Arrangement	
Administrative Information	
Related Materials	
Indexing Terms	
Other Descriptive Information	
Bibliography	11

Summary Information

Repository American Philosophical Society

Creator Harlan, Richard, 1796-1843

Title Richard Harlan Journals

Date [inclusive] 1816-1817, 1833

Call number Mss.B.H228

Extent 2.0 Volume(s)

Extent 2 vols.

Location LH-MV-E-2

Language English

Abstract The natural historian Richard Harlan was a pioneer in the study of

comparative anatomy and vertebrate paleontology in the United States during the years following the War of 1812. Having received his medical degree from the University of Pennsylvania in 1818, Harlan was employed as an instructor of anatomy at Joseph Parrish's school and at the Philadelphia Museum. A practicing physician and member of the Academy of Natural Sciences of Philadelphia and the American Philosophical Society, Harlan made important contributions in comparative neuroanatomy, paleontology, herpetology, and systematic zoology. He died shortly after moving to New Orleans in 1839.

undertook during his lifetime. The first took place in 1816-1817 when Harlan was still a medical student, accompanying an East Indiaman to Calcutta as ship's surgeon. The second took place when Harlan was at

Harlan's journals document two of the three overseas voyages he

the peak of his career in 1833, venturing to England, France, and Italy to strengthen contacts with European colleagues. Interesting travel narratives in themselves, the journals mingle enthusiasm for the new and exotic with a touch of Harlan's truculance. The European journal includes a valuable account of the 3nd meeting of the British Association for the Advancement of Science at Cambridge at which Harlan delivered a paper on fossil reptiles.

Preferred Citation

Cite as: Richard Harlan Journals, American Philosophical Society.

Background note

A naturalist and one of America's earliest comparative anatomists and paleontologists, Richard Harlan was born in Philadelphia on September 19, 1796. The eighth of ten children born to Quaker parents, he applied himself to the study of medicine under Joseph Parrish. However even as a student, he devoted much of his attention to natural history. These interests, as well as the opportunity to gain practical experience as a physician, led him to interrupt his medical study to sign on as ship's surgeon aboard the *William Savery*, during a thirteen month voyage to Calcutta in 1816-1817.

After completing his medical degree at the University of Pennsylvania in 1818 with a dissertation on the vital principle, Harlan soon gained recognition as a bright, though occasionally irrascible young man. His old mentor Parrish hired the young naturalist as an instructor of anatomy at his private medical school, and Harlan extended his practice by working as a physician with the Philadelphia Dispensary in 1820 and with the Almshouse from 1822 to 1838. At the same time, he devoted equal energy to establishing his reputation as an innovative natural historian. With a particular zeal for vertebrate paleontology, physiology, and comparative anatomy, he gained election to the Academy of Natural Sciences of Philadelphia in 1815, joining a vibrant community of young scientists, and became an active member in the Academy of Medicine.

By the time that Charles Willson Peale hired him to become professor of anatomy at the Philadelphia Museum Company in 1821, Harlan's scientific reputation in the city was secure. Two of his early works in animal physiology -- on the generation of animal heat and the process of absorption -- had led Nathaniel Chapman and Thomas Say to propose him for membership in the American Philosophical Society in 1822, and thereafter he became a regular fixture at meetings and contributed regularly to committees reviewing scientific and medical works. Harlan also submitted several articles to the APS *Transactions* on herpetology, comparative anatomy, and paleontology. He later became a founding member of the Geological Society of Pennsylvania and was one of the principle figures laboring to establish a state geological survey.

As might be expected, Harlan's earliest works arose out of the dissecting room. His *Anatomical Investigations* and *Inquiry into the Functions of the Brain in Man, and in the Lower Order of Animals*, both published in 1824, were detailed studies of the anatomy and function of the brain, distinguished by their comparative perspective. At around the same time, Harlan began to assemble a cabinet of anatomical specimens, which eventually grew in size to rival that of his friend, Samuel George Morton, including 275 crania by 1839.

Among the 64 works that Harlabn published during his career, few had greater impact, or were more controversial, than his *Fauna Americana* (1825). The first comprehensive systematic zoological survey of North America, including even a few fossil forms, the *Fauna* sparked a two year spat with John Godman, among others, who impugned both its originality and its accuracy. Harlan was accused at various points of muddling his Linnaean systematics and of outright plagiarism of Demerest's recently published *Mammalogie*, however in his defence, the book did contain descriptions of new species collected during the Stephen Harriman Long expedition and by Constantine Rafinesque. Although the criticism caused Harlan to refrain from producing a planned second volume on reptiles, the *Fauna* was

followed by a smaller, but nevertheless important *American Herpetology* in 1827, one of a number of Harlan's works devoted to the study of reptiles.

Even as Harlan's scientific career progressed, he seems not to have neglected his medical practice. A respected physician and educator, he attained a degree of renown localled when the cholera pandemic first struck the northern parts of North America in 1832. Harlan and two of his colleagues were dispatched to Montreal to observe the response of Canadian physicians, with hopes of devising more effective means of averting or treating the disease. At the recommendation of Harlan and his committee, Philadelphia quickly established a series of emergency dispensaries and hospitals and a system for evacuating heavily infected areas that were credited with substantially lowering the morality. For his services, the city awarded Harlan a silver pitcher.

Like many American naturalists of his day, Harlan viewed his European colleagues with admiration and a touch of envy, and he looked particularly to the French master of comaparative anatomy Georges Cuvier for a scientific model. (Ironically, while Cuvier was said to have boasted that he could reconstruct any vertebrate from a single bone, Harlan was not always so insightful or fortunate: in the most notorious instance, Harlan classified a recently discovered fossil whale Basilosaurus as a reptile.) To further his scientific reputation among his peers, Harlan undertook a tour of Europe in 1833, establishing contacts with naturalists and medical researchers and more generally imbibing the rarified air of the British Museum, the Jardin des Plantes, and other centers of scientific inquiry. His arrival in Liverpool coincided with the third annual meeting of the British Association for the Advancement of Science at Cambridge, where he was invited to deliver a paper on fossil reptiles. Having stirred the good-natured opposition of William Buckland, Harlan was also introduced to John Edward Gray, John Dalton, and Adam Sedgwick, among others, and he befriended a fellow enthusiast for fossil reptiles, Gideon Mantell. From Cambridge, he traveled to the hospitals and museums of London, visited Mantell's home in Lewes, and after crossing to the continent, took in the scientific and touristic sights of France and Italy, twice paying visits to the widow of the recently deceased Cuvier. After his return to the United States in December 1833, Harlan prepared a summary, of sorts, of his research to this point. His Medical and Physical Researches (1835) contained a collection of articles on zoology, physiology, and clinical medicine, ranging from neuroanatomy to the effects of poisons.

Harlan decided to return to France in January 1839, intending to remain several years. A fire, however, destroyed the anatomical collections that he had left in Philadelphia, causing him to abandon his plans and return home. The sole concrete product of this second European trip was a translation of Gannal's *History of Embalming* (1840), a topic that had excited Harlan' curiosity for several years. Two years later, in December 1842, he moved to New Orleans, quickly assuming a privileged position at the top of the local medical community, becoming vice president of the Louisiana Medico-Chirurgical Society. In 1843, however, these promising beginnings were cut short when he died suddenly of apoplexy. He was survived by his wife Mary Hart Simmons Howell and by four children, one of whom, George Cuvier Harlan (b. 1835) became a distinguished ophthalmologist.

Scope & content

The paucity of manuscript material for the naturalist Richard Harlan enhances the value of these surviving volumes, which document two important, but radically different journeys. The first documents a thirteen month voyage to India undertaken by the budding naturalist in 1816-1817, when he was still a medical student, while the second covers a tour of Europe in 1833, when a scientifically mature Harlan was seeking to enhance his reputation and to forge new contacts abroad. Both are written closely in a prose that manages simultaneously to display enthusiasm and curiosity, deference and defenciveness, marked by an occasionally dispeptic view of Harlan's racial and intellectual inferiors. In many ways, Harlan is a transitional figure between the generation of early national scientists trained in medicine and operating in a field with diffuse disciplinary boundaries and the generation of specialists not only attuned to, but engaged in European currents of thought.

The journal that Harlan kept during his voyage to India commences when the *William Savery* left port in Philadelphia on October 16, 1816 and includes a detailed account of the voyage through the Atlantic and Indian Oceans. From his arrival at the mouth of the Hoogly River on March 8, 1817, it includes far more ethnographic than natural historical description, mingling descriptions of the native communities and cultural practices with descriptions of the British and American communities and occasional descriptions of wild life and climate. Harlan follows an account of a lavish native wedding, for example, with descriptions of the varieties of jugglers and street performers in Calcutta and of the British Fort William and the Royal Botanical Garden. The Garden particularly impressed Harlan, whose lengthy and interesting account is decorated with a few lines evoked from Milton.

Indian cultures and religions fascinated Harlan, who devoted several pages to a description of a nauch -- "something similar to our balls, though in this country, it is sometimes partly a religious ceremony." Typically, he ends his account with disdainful comments about the morality of the "moorish" women he witnessed there, and moorish women in general.

Similarly, when discussing religious ceremonies and the caste system, Harlan balanced a disgust at the "barbarity" he witnessed and a disdain for the lesser forms of humanity with a clear attraction to the "exotic" events he was witnessing. After a description of a lower caste ceremony in which men were suspended from ropes by hooks, he reacted characteristically:

Surprisingly, Harlan devoted little attention to natural history during his journey, seeking out only the "argala" (*Ciconia argala*), a giant scavenging crane. Some of his best views of wildlife were afforded by a visit to the Governor General's country seat, where he saw three tigers -- "large full grown Tigers, the real striped royal Tiger of Asia" -- and a menagerie of animals imported from all over the British Empire, including mynah birds, ostriches, hyenas, kangaroos, and a "Malay hog." At some point he apparently purloined a "Hindoo" skull from a funeral pyre, but discovered that it had been thrown overboard by "superstitious" crew members when he was indisposed.

Harlan's account of his European tour begins in Liverpool on June 23, 1833, when Harlan was speeding to the meeting of the British Association at Cambridge. In addition to meeting the likes of John Stevens

Henslow, William Buckland, Roderick Impey Murchison, Adam Sedgwick, and Gideon Mantell ("a man after my own heart"), Harlan presented on fossil reptiles, which Buckland thought "opposed some of his theories," leading to some spirited, though cordial discussion. Harlan was left gasping not only by the spotlight, but by the luminaries around him. "I felt as if a pistol had been pointed at me when first called on," he wrote, "I am most happy in escaping the conflict unscathed." After a tour of Cambridge and encounters with still other naturalists, Harlan's experience came to a crescendo at the formal dinner, at which he proposed a toast to his British hosts and was asked by John Dalton to carry a copy of his latest work to Robert Hare. The experience, he wrote, "almost convert[ed] my brain into a Phantasmagora."

After Cambridge, Harland passed a few weeks in London, visiting historical sites, hospitals, and museums. Although his tours were as much for pleasure as for intellectual betterment, he sought out important figures in medicine and natural history, and toured collections ranging from the craniological and phrenological collections of James Deville, to the reptiles at the British Museum under John Edward Gray, to the botanical gardens and ornithological collections of George Loddiges and his brother. He became intimate enough with Mantell to merit an invitation to Lewes and to make an excursion to the famed fossiliferous chalk pits.

At the end of July, Harlan departed for Paris, taking in the standard touristic sights in much the same way he had in London, leavening tourism with science and medicine. He witnessed surgeries at the Hôpital La Pitié, visited several charity hospitals (often in the company of other Philadelphia physicians), and heard Dumenil lecture at the École de Médecine. Most interestingly, he paid a pilgrimage to the disconsolate widow of the recently deceased Georges Cuvier, through which, he wrote, "I satisfied my curiosity at the expense of my feelings."

Leaving Paris, Harlan traveled along the Loire ("The villages filthy, streets narrow, the people barbarous and ignorant -- and at a Charité particularly exceedingly ugly") before heading through the geological marvels of the Jura to Geneva. Mountain climbing and visits to a morgue and local charnel house were followed by a whirlwind tour through northern Italy, and from Rome to Naples and the geological and archaeological sites near Pompeii. On his return to Paris, Harlan once again paid his respects to Mme Cuvier, and in England, he did the same with John Edward Gray and William Buckland, stopping at the latter's house to view his stuffed hyena and sea tortoise and to peruse his cabinet of fossils. Harlan ended his tour in Edinburgh, taking the rounds at the Royal Infirmary with James Syme, and with stopovers at Belfast and Dublin. He arrived back in New York on December 22, 1833.

Arrangement

Volume 1. Journal of Voyage 1816 October 17-1817 1 vol., 59p. to India November 15

Volume 2. Journal of Voyage 1833 June 23-December 22 1 vol., 148p. to Europe

Administrative Information

Publication Information

American Philosophical Society 2/2003

Provenance

Acquisition Information

Acquired, 2002.

Processing Information

Catalogued by rsc, 2003.

Related Materials

Related Material

As a prominent figure in the American Philosophical Society during the first half of the nineteenth century, Harlan appears as a correspondent in as number of collections.

- 1 APS Archives: 41 letters or reports to, from, or about Harlan, concerning fossils (including the mastodon and *Megalonyx*
- 2 Miscellaneous Manuscripts: 4 items
- 3 John James Audubon Papers (B Au25): 1 item
- 4 John Edward Grey Papers (B G784): 1 item
- 5 Samuel George Morton Papers (B M843): 5 items
- 6 George Ord Papers (B Or2): 1 item

- 7 Peale Family Papers (B P31): 1 item
- 8 Caspar Wistar Pennock Papers (B P3825): 1 item

Indexing Terms

Corporate Name(s)

• British Association for the Advancement of Science (3d : Cambridge, England)

Genre(s)

- Journals
- Travel Narratives and Journals

Geographic Name(s)

- Alps--Description and travel
- Edinburgh (Scotland)--Description and travel
- France--Description and travel
- India--Description and travel
- Ireland--Description and travel
- Italy--Description and travel
- London (England)--Description and travel
- Paris (France)--Description and travel
- Switzerland--Description and travel

Personal Name(s)

- Buckland, William, 1784-1856
- Dalton, John, 1766-1844
- Gray, John Edward, 1800-1875
- Mantell, Gideon Algernon, 1790-1852
- Sedgwick, Adam, 1785-1873
- Syme, James, 1799-1870
- Valenciennes, M., 1794-1865

Subject(s)

- · Americans Abroad
- International Travel
- Medicine
- Medicine--Practice--France
- Paleontology
- Royal Botanic Gardens, Calcutta
- Science and Technology
- Travel

Other Descriptive Information

The collection consists of two travel journals Richard Harlan kept at two very different points of his career. Harlan was a prominent Philadelphia-based scientist and doctor. The first dates to 1817-1818 when he was a medical student who traveled to India. The second dates to 1833 when Harlan, then an established physician and scientist, traveled to Europe to observe scientific practices there. The journals are incredibly detailed and rich.

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Call no.: Pam v.1159, no.9

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Call no.: Pam v.1161, no.8

Harlan, Richard, Medical and Physical Researches; Or, Original Memoirs in Medicine, Surgery, Physiology, Geology, Zoology and Comparative Anatomy (Philadelphia, 1835).

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Call no.: 614.64G15h