

**Benjamin Silliman correspondence, 1808-1859**  
**1808-1859**  
**Mss.B.Si4**

American Philosophical Society  
105 South Fifth Street  
Philadelphia, PA, 19106  
215-440-3400  
[manuscripts@amphilsoc.org](mailto:manuscripts@amphilsoc.org)

## Table of Contents

---

Summary Information .....	3
Background note .....	4
Scope & content .....	7
Administrative Information .....	8
Indexing Terms .....	8
Other Descriptive Information .....	9
Other Descriptive Information .....	9
Collection Inventory .....	10
Papers.....	10

## Summary Information

---

<b>Repository</b>	American Philosophical Society
<b>Creator</b>	Silliman, Benjamin, Sr., 1779-1864
<b>Title</b>	Benjamin Silliman correspondence, 1808-1859
<b>Date [inclusive]</b>	1808-1859
<b>Call number</b>	Mss.B.Si4
<b>Extent</b>	0.25 Linear feet 31 items
<b>Extent</b>	31 items.
<b>Location</b>	LH-MV-B-1
<b>Language</b>	English
<b>Container</b>	1
<b>Abstract</b>	<p>Benjamin Silliman (1779-1864, APS 1805) was a scientist and educator. As a professor of chemistry at Yale University from 1802 to 1853, and pioneering teacher of chemistry, mineralogy and geology, Silliman was largely responsible for the conversion of Yale College to Yale University, with strong medical and scientific departments.</p>

---

## Background note

---

Benjamin Silliman (1779-1864, APS 1805) was a scientist and educator. As a professor of chemistry at Yale University from 1802 to 1853, and pioneering teacher of chemistry, mineralogy and geology, Silliman was largely responsible for the conversion of Yale College to Yale University, with strong medical and scientific departments.

Benjamin Silliman was born in 1779 in North Stratford (now Trumbull), Connecticut. His parents were Gold Selleck Silliman, a lawyer and brigadier general in the Continental army, and Mary Fish Noyes. Silliman was educated at Yale University. After graduating in 1796, he taught private school for two years and then studied law. From 1799 to 1802, the year of his admission to the bar, Silliman also worked as a tutor at Yale. It was during this period that his interest in the natural world began. In part because of the encouragement of Yale's president Timothy Dwight, Silliman soon abandoned the law and instead turned his attention to the study of chemistry and natural philosophy.

In 1802 Silliman was appointed to Yale's new professorship in chemistry and natural history; however, realizing that chemistry could not be self-taught he decided to study the subject at the University of Pennsylvania. He remained in Philadelphia for two years, during which he heard the lectures of eminent scientists such as James Woodhouse (1770-1809, APS 1796), Benjamin Smith Barton (1766-1815, APS 1759), and Caspar Wistar (1761-1818, APS 1787). Silliman also made the acquaintance of Benjamin Rush (1745-1813, APS 1768), Joseph Priestley (1733-1804, APS 1785), and John Maclean (1771-1814, APS 1806), and he also formed a lasting friendship with the chemist Robert Hare (1781-1858, APS 1803). The two young men conducted scientific experiments in a laboratory they set up in the basement of their boarding house.

Silliman's appointment at Yale also included natural history, a field that included geology, mineralogy, botany and zoology. In order to fill this gap in his formal education, Silliman spent 1805 and 1806 in England and Scotland, including the University of Edinburgh. During this period he met such leading figures as Humphrey Davy, W. H. Wollaston, Joseph Banks, and Benjamin West. His geological studies were primarily influenced by John Murray and Thomas Hope, both of Edinburgh, who were investigating the origin of the earth's surface and the formation of rocks and minerals. Hope was an ardent supporter of the ideas of Abraham Gottlob Werner, who identified water as the principal agent of geological change and believed that rocks crystallized out of ocean waters or were formed by the pressure of water acting on sediments. In his teaching of geology Silliman eventually utilized Werner's practical system of geology, which favored the characterization of minerals by color, hardness, texture, taste, and smell rather than by chemical composition, crystalline structure, and other properties that required instrumentation for measurement. In 1810 Silliman published the popular *Journal of Travels in England, Holland, and Scotland in 1805-06*.

Silliman returned to Yale in 1806 to lecture in chemistry, mineralogy, and geology. Shortly after his arrival, he conducted a geological survey of New Haven. At Yale, he was instrumental in building up the university's collections in mineralogy and geology, and he actively promoted the founding of Yale's Medical School (1813). His ability to translate complex scientific concepts into accessible language made him a popular public lecturer. After 1808 he regularly offered public lectures that applied science to

mining, agriculture, and industry. Silliman eventually gave public lectures in many locations, including Hartford, Boston, St. Louis, New York, and Philadelphia. In 1839-1840 he gave the inaugural lectures at the Lowell Institute in Lowell, Massachusetts, speaking on geology.

A deeply religious man, Silliman frequently defended science against charges of atheism in his lectures. He insisted that science and religion were compatible, and that geological theory did not contradict the biblical version of genesis. He discussed some of these ideas in the appendix to the third American edition of Robert Bakewell's *Introduction to Geology*, published in 1839.

Over the course of his five decades as a professor at Yale, Silliman conducted a variety of research, the results of which he published in about sixty scientific papers. One of his earliest projects involved an analysis of meteoric material that had been found in Connecticut. With the help of Hare's blowpipe, Silliman was able to observe the melting of lime, magnesia, beryl, corundum, rock crystal, and other substances. Similarly, he used Hare's Galvanic deflagrator to study both the fusion and the volatilization of carbon with its transfer from the positive to the negative pole. In his publications about this work, Silliman gave full credit to Hare and his inventions that had made this work possible.

In 1809 Silliman married Harriet Trumbull. The couple had nine children. Harriet died in 1850, and Silliman married Sarah Webb one year later.

In 1818 Silliman founded the *American Journal of Science (and Arts)*, better known as Silliman's Journal. Within a decade the journal, which was based on European models, Silliman turned it into America's premier scientific journal, publishing papers of both theoretical and practical interest from the United States and Europe. Silliman also edited and adapted texts on chemistry and geology, and he wrote a widely used *Elements of Chemistry in the Order of the Lectures Given in Yale College* (1831), which one reviewer called "one of the best productions on the Chemistry, that we have ever examined." In addition, Silliman published accounts of some of his travels, including *A Short Tour between Hartford and Quebec* (1820) and *Narrative of a Visit to Europe* (1853).

During the first decades of the nineteenth century, Silliman became increasingly active on behalf of the abolitionist cause. In the late 1790s his mother Mary had been the largest slave holder in Fairfield County, Connecticut. The sale of two slaves in 1795 had financed Silliman's education at Yale, and during his return to his family home after graduation he was in charge of Holland Hill, the family farm, which included a "negro house" and six adult slaves. However, by the late 1790s Silliman, who was still profiting from the labor of slaves who had been born after Connecticut passed its gradual emancipation statute in 1784, was openly speaking out against slavery. By the 1830s Silliman no longer owned slaves. He was an active member of the American Colonization Society, and in 1832 gave an impassioned sermon in which he promoted the colonization scheme. In 1856 he publicly opposed the admission of Kansas as a slave state; around the same time he forced President Buchanan in a series of letters to admit his pro-slavery views.

Silliman was a member of many American and European learned societies. For example, in 1805 he was elected to the American Philosophical Society, and three years later he became a corresponding member of the Massachusetts Historical Society. He was also a member of the American Academy of Arts and Sciences.

In 1853 Silliman retired from Yale, but he nevertheless continued to lecture on geology. In 1863 he was one of the founding members of the National Academy of Sciences. He died the following year in New Haven.

## **Scope & content**

---

These letters cover a variety of topics, and include the Geological Society of America, blowpipes, chemistry, the Lowell Institute, geology, and natural history.

## Administrative Information

---

### Publication Information

American Philosophical Society

## Provenance

---

### Acquisition Information

Purchased from Winifred Myers (£35) and accessioned, 1979 (1979 1519ms). See in-house shelf list for additional accession numbers and information.

## Indexing Terms

---

### Corporate Name(s)

- Geological Society of America.
- Lowell Institute.

### Genre(s)

- Educational Material
- Scientific Correspondence

### Personal Name(s)

- Berzelius, Jons Jakob, Friherre, 1779-1848
- Brongniart, Alexandre-Theodore, 1739-1813
- Bronn, H. G., (Heinrich Georg), 1800-1862
- Cleaveland, Parker, 1780-1858
- Green, Ashbel, 1762-1848
- Holmes, Abiel, 1763-1837
- Mather, W. W., (William Williams), 1804-1859



- McLane, Louis, 1786-1857
- Orr, Andrew
- Richards, John S.
- Schoolcraft, Henry Rowe, 1793-1864
- Vaughan, John, 1756-1841

### **Subject(s)**

- Blowpipe.
- Chemistry
- Education
- Geology.
- Natural history.
- Science and Technology

### **Other Descriptive Information**

---

The Silliman Correspondence contains at least one item which may be of interest to naval historians:

Silliman, Benjamin. Letter to Captain Charles Wilkes. 1845 December 20. Wants sample of spring water for study. Dr. C. T. Jackson's analysis of sea water has been published. 2 pages.

### **Other Descriptive Information**

---

This small collection contains a range of documents relating to the career of Benjamin Silliman, chemist and professor at Yale. Much of the correspondence dates to the 1830s and is from Silliman himself. There are a few letters in French from Jons Berzelius. Science, especially chemistry and geology, and other scientists are often discussed.

## Collection Inventory

---

### Papers

---

**Holmes, Abiel, 1763-1837**

March 2, 1808

10x7-3/4

Letter to Benjamin Silliman, New-Haven;

Cambridge, Mass., A.L.S. 3p.and add.,end. Concerning theories of comets of maskelyne, Clap,and Silliman. Refers to Stiles and Dwight.

---

**Silliman, Benjamin, 1779-1864**

Aug. 10, 1810

9-1/2x7-3/4

Letter to Dr. Spaulding;

New Haven, Conn. A.L.S. 1p.and end. Concerning his paper on meteoric stones. Refers to the APS.

---

**Silliman, Benjamin, 1779-1864**

Sept. 19, 1821

9x7-1/4

Letter to Prof. [Ashbel] Green, Princeton;

New Haven, A.L.S. 1p.and add.,end. Introduces [Samuel B.?] Woodward. Refers to Green's article on the blowpipe.

---

**Brongniart, Alexandre, 1770-1847**

Sept. 30, 1821

9x7-1/4

Letter to [Benjamin] Silliman, New Haven,  
Conn.;

Paris, A.L.S. 7p.and add. In French. Scientific news and comments on his work. Fossils and geology and mollusks. Refers to Cuvier. Natural history.

---

**Berzelius, Jo#ns Jakob, friherre,  
1779-1848**

22 April, 1822

9x7-1/2

Letter to [Benjamin] Silliman, New Haven;

A.L.S. 4p.,end. In French. Thanks for Journal and will exchange publications. Will publish on chemistry. Sends minerals.

Not Found: 3/7/2011

---

## Papers

<b>Berzelius, Jo#ns Jakob, friherre, 1779-1848</b>	July 17, 1823	10x8-1/4
Letter to [Benjamin Silliman];		
Stockholm, A.L.S. 4p.,end. In French. Forwards in Swedish on scientific subjects, geographical charts, and many mineralogical specimens. Refers to John Torrey.		
<b>Silliman, Benjamin, 1779-1864</b>	April 9, 1824	7 7/8" x 9 5/8"
B[enjamin] Silliman to J[ohn] Vaughan,		
New Haven, 1 p. A.L.S. Will insert in American Journal of Science a communication sent by Dr. Seybert and his son.		
<b>Berzelius, Jo#ns Jakob, friherre, 1779-1848</b>	June 28, 1832	10-1/4x8-1/2
Letter to [Benjamin Silliman];		
Stockholm, A.L.S. 2p.and end. In French. Sends him his major work on chemistry and describes how he will continue publishing on the subject in future volumes.		
<b>McLane, Louis, 1786-1857</b>	Oct. 18, 1832	12-1/2x8
Letter to Professor [Benjamin] Silliman, New Haven;		
L.S. 2p.and end. Authorizes Silliman to "undertake the proposed manual on the cultivation of the sugar."		
<b>Silliman, Benjamin, 1779-1864</b>	January 6, 1833	7 3/4" x 9 5/8"
B[enjamin] Silliman to John Vaughan,		
Philadelphia, 1 p. and address. A.L.S. Cannot meet Vaughan on Tuesday as he is going to Washington.		
<b>Silliman, Benjamin, 1779-1864</b>	December 10, 1833	7 5/8" x 10"
B[enjamin] Silliman to John Vaughan,		
New Haven, 1 p. and address. L.S. Introducing Professor Cleveland, who is "about to establish himself in Philadelphia as a classical teacher."		

## Papers

**Mather, W. W. (William Williams),** Oct. 8, 1834 7-3/4x5  
**1804-1859**

Letter to [Benjamin] Silliman;

West Point, A.L.S. 2p. and add.,end. Forwards article on platinum and aluminium. Refers to Thomson and Berzelius.

---

**Silliman, Benjamin, 1779-1864** May 18, 1835 8-1/2x7

Letter to Mr. Little;

Salem, Mass., Photo.of A.L.S. 1p.and end. (from original Diederich Collection, 139 Bk, University of Amsterdam Library.) Concerning copies of the Journal.

---

**Silliman, Benjamin, 1779-1864** July 29, 1835 10x8

Letter to ----;

Yale College, A.L.S. 1p.with note by James Kent, July 31, 1835, on same leaf, end. Recommendation for John Griscom.

---

**Mather, W. W. (William Williams),** Jan. 30, 1836 10x8

**1804-1859**

Letter to Benjamin Silliman, New Haven;

Fort Gibson, Arkansas, A.L.S. 3p.and add.,end. Geology; trip with Featherstonhaugh to the head of the St. Peters River; his thermometer. Life in the U.S. Army. Refers to American Academy of Sciences, and Berzelius.

---

**Schoolcraft, Henry Rowe, 1793-1864** March 16, 1836 10x8

Letter to Benjamin Silliman, Boston;

Washington, A.L.S. 2p.and add.,end. Concerning geology. On same sheet is draft of letter from H. (?) Silliman to B.Silliman; March 21, [1836].

---

**Silliman, Harriet Trumbull, d. 1850** March 21, [1836] 10x8

Letter to [Benjamin Silliman];

New Haven, A.L.S. 1p. Friendly letter. On same sheet as letter from Schoolcraft to B.Silliman; March 16, 1836.

**Other Descriptive Information**

## Papers

Not found 5/2011

---

**Silliman, Benjamin, 1779-1864** April 26, 1839 7 3/4" x 9  
 B[enjamin] Silliman to John Vaughan, 3/4"

New Haven, 2 pp. and address. A.L.S. Introducing the Rev. [W.J.] Bakewell.

Not Found: 3/7/2011

---

**Silliman, Benjamin, 1779-1864** 1 June, 1839

Letter to Messrs. [John] Wiley & [George  
 Palmer] Putnam ...

(Card 2) Wiley, John, 1805-1891.

---

**Silliman, Benjamin, 1779-1864** Jan. 15, 1841 10x8

Letter to Parker Cleaveland;

New Haven, Conn., A.L.S. 3p.add.end. Preventing lab explosion. Revolving battery at Lowell  
 Institute. B.W.Shepard's report. American Geol. Soc. in "suspended animation." Geol. Assoc. in  
 Philadelphia. Construct. of "blow pipe."

---

**Silliman, Benjamin, 1779-1864** March 29, 1841 9-3/4x7-3/4

Letter to F Bigelow;

A.L.S. 1p. Silliman to chair meeting on science at the Lyceum in Philadelphia. Asks to change  
 schedule. Mentions Messrs. Davis, and Palmer.

---

**Silliman, Benjamin, 1779-1864** Feb. 7, 1842 9-3/4x7-3/4

Letter to W. W. Boardman, Washington;

New Haven, A.L.S. 1p.and add., end. Thanks for Mrs. Tayloe's note and encloses reply. Notifies him  
 of his address for the next two months.

---

**Silliman, Benjamin, 1779-1864** 25 July, 1845 11-1/8x9-1/8

Letter to H[einrich] G[eorg] Bronn,  
 Heidelberg;

## Papers

New Haven, Conn., A.L.S. 3-1/2p. Answers Bronn's letter of March 24. Silliman discusses and comments on scientists in America whom Bronn should know for the work he is undertaking. Concerns Geology. Mentions Journal of cond. on

---

**Silliman, Benjamin, 1816-1885**

Dec. 20, 1845

9-3/4x7-3/4

Letter to Capt. Charles Wilkes;

Yale College Lab., A.L.S. 2p. Wants sample of spring water for study. Dr. C.T.Jackson's analysis of sea water has been published? On same sheet is broadside: American Journal of Science and Arts

---

**Silliman, Benjamin, 1779-1864**

21 February, 1846

9 3/4 x 7 3/4

Letter to J[ohn] S. Richards, Reading;

Baltimore, A.L.S. 1p.add. Arrangements for Silliman's lecture in Reading, PA, on "influence of science & the arts upon the moral intellectual and physical condition of man..." Would prize samples of coal plants and titanic. Mentions Elihu Chauncey.

---

**Silliman, Benjamin, 1779-1864**

27 February, 1846

9 3/4 x 7 3/4

Letter to J[ohn] S. Richards, Reading;

Baltimore, A.L.S. 1p.add. Details of Silliman's forthcoming trip to Reading, PA, to visit mines and deliver lecture.

---

**Silliman, Benjamin, 1779-1864**

14 July, 1847

9 3/4 x 8

Letter to John S. Richards, Reading;

New Haven, A.L.S. 2p. add. Declines invitation to give lecture in Reading, PA; will leave oral instruction of public to younger man. Discusses recent visit to young lady known to Richards and now residing in New Haven.

---

**Silliman, Benjamin, 1779-1864**

June 19, 1855

7-1/8x5-6/8

Letter to [British Association];

A.L.S. 1p. Thanks for publications. Mentions B. Silliman Jr., James Dance & P. Hubbard?

---

**Silliman, Benjamin, 1779-1864**

Sept. 12, 1855

8-1/2x6-1/2

Letter to Andrew Orr;

## Papers

Glasgow, A.L.S. 1-1/3p. Unable to attend British Assoc. Meeting in Glasgow. Nostalgic comments on Scotland, where he received his "most important rudiments of Science."

---

**Silliman, Benjamin, 1779-1864**

March 4, 1859

10x8

Letter to Mrs. Elizabeth Taylor;

New Haven, Conn., A.L.S. 4p. Concerning his friendship and relation with Richard Taylor. Concerning his children and grand children, especially B.Silliman, Jr. and James D. Dana.

---

**Silliman, Benjamin, 1779-1864**

Dec. 23, 1859

6-1/4x4

Letter to ----;

A.L.S. 1p. Asks for balance sheet of the American Mutual Life Insurance company from parcel which contained Humboldt item.

---