BIOGRAPHIES OF GEOLOGISTS

JOHN W. WELLS AND GEORGE W. WHITE

Department of Geology, Cornell University, Ithaca, N. Y., and Department of Geology, University of Illinois, Urbana, Illinois

Ten years ago, one of us published *A list of books on the personalities of geology* in this journal (vol. 47, 192–200, 1947). At the time it was noted that such a list was certainly incomplete, and the intervening years have shown that this was decidedly an understatement. Since then we have found many more such books, new ones have been published, and interested friends (especially J. V. Howell and F. S. Colliver) have suggested important additions. Only 78 biographies were included originally, and since some 132 more can now be added, it seems worthwhile to present a more complete listing, even though it is probably still incomplete. We have added brief comments on all the biographies except those few we have not been able to examine. In the original list, books of geologists' travels, histories of geology, and “miscellaneous” books were included. These are omitted here, only biographical and autobiographical books being admitted. Even with this restriction, choice in some instances has not been easy. As in the first list, we have included only items that have appeared as books, deliberately excluding all but a very, very few biographical notices, memoirs, and obituaries that were published in various journals.

All those seriously interested in geology and its branches as a profession or avocation cannot fail to win something from the reading of their predecessors' struggles and triumphs. Who can work with the great quarto volumes of the *Palaeontology of New York* without wondering about the character of a man with enough fortitude to produce them? Who can notice the constant allusions to Sir Charles Lyell in hundreds of geological works without wondering how he lived and worked? Who can read of the first geological exploration of the Grand Canyon of the Colorado without a thought to the motives that pushed John Wesley Powell into the unknown? Who can read *The Old Red Sandstone* without wondering what sort of geologist could write such elegant and lucid prose? Who can discover that a mineral, such as dolomite, was named for one Deodat Dolomieu without wondering who this man was to merit such an honor? And who can contrast the great volumes on the zoology of the United States Exploring Expedition with the many editions of *A System of Mineralogy* without wondering at the versatility of James Dwight Dana? Or at the even greater versatility of Louis Agassiz—from ice to jungle exploration, from fossil fish to embryology?

We hope that geologists and other scientists will find this compilation a useful guide to books about the men who have labored on the main fabric or in the dark corners of the vast edifice of minerals, volcanoes, glaciers, fossils, mountains and rivers that is geology.

BIOGRAPHIES


Agassiz, E. C. *Louis Agassiz, sa Vie et sa Correspondence.* (transl. by A. Mayor.) Librairie Fischbacher, Paris, 1887.—French edition, with slight additions, of the preceding.


Robinson, M. L. *Runner of the Mountain Tops; the Life of Louis Agassiz.* Random House, New York, 1939.—A recent study, much less definitive than the preceding.


AGRICOLA, Georg. 1494-1555. Beecher, F. L. *Die Mineralogen Georg Agricola und A. G. Werner.* Freiberg, 1819.—An early study of the man who was physician, mining engineer, mining geologist and scholar. He was the first of the "moderns."


Hofman, R. *Dr. Georg Agricola, Ein Gelehrtenleben aus dem Zeitalter der Reformation.* F. A. Perthes, Gotha, 1905.—Short, scholarly study of Agricola's life and work.


BALL, Valentine. 1843-1895. Ball, V. *Jungle life in India; or the journeys and journals of an Indian Geologist.* De La Rue, London, 1880.—Entertaining recollections of fifteen years' field work for the Geological Survey of India.

BECK, Theodoric Romeyn. 1791-1855. Hamilton, F. H. *Eulogy on the life and character of Theodoric Romeyn Beck,* M.D., LL.D. Albany, 1856.—Beck was the scientific leader of Albany in the early 19th Century, amateur geologist, and friend of Amos Eaton.


BRONGNIART, Alexandre. 1770-1847; and Adolphe. 1801-1876. Launay, L. de. *Les Brongniart, une grande Famille de Savants.* Rapidly et Fils, Paris, 1940.—A fine study of a brilliant family. Alexandre was a geologist and mineralogist, director of the Sevres porcelain factory and son of an eminent architect. Adolphe, his son, was famous as a botanist and paleobotanist.


Anon. *Vie privee de M. le comte de Buffon.* Lausanne, 1788.

BUNBURY, Charles James Fox. 1809-1886. Lyell, Katherine M. *Life, letters, and journals of Sir Charles James Fox Bunbury, Bart.* Murray, London, 2 vols., 1906.—Although himself merely an amateur geologist and botanist, Bunbury’s letters provide many interesting sidelights on his wife’s sister’s husband, Sir Charles Lyell.


DANA, James Dwight. 1813-1895. Gilman, D. C. The Life of James Dwight Dana. Harper’s, New York, 1899.—Accurate, but dull and lifeless biography of one of the most important nineteenth century geologists; founder of modern system of mineral classification.

DARWIN, Charles. 1809-1882. Darwin, F., ed. Life and Letters of Charles Darwin. 3 vols., Murray, London, 1887, 1892; 2 vols; Appleton, New York, 1896.—Darwin needs no mention here. He was by all odds the greatest figure in biological science of the 19th century, for he finally focussed and gave meaning to the chaos of paleontological and neontological facts.


DOLOMIEU, Deodat (Dieudonne-Sylvain-Guy-Tancrede de Gratet de). 1750-1801. Lacroix, A. Deodat Dolomieu: Sa vie aventureuse—sa captivite—ses oeuvres—sa correspondance. Perrier, Paris, 2 vols. 1921.—Definitive work on Dolomieu, who travelled widely in the Mediterranean region—"a careful and indefatigable observer, and provided copious material towards the establishment of the principles of geology" (Geikie).


1895.—Factual account of the life and work of Ehrenberg, famous for his pioneer studies of the coral reefs of the Red Sea and on Foraminifera and other protists.


**EVANS, Lewis.** 1700-1755. Gipson, L. H. *Lewis Evans, to which is added Evans' A Brief Account of Pennsylvania Together with Fascimiles of His Geographical, . . . Essays, Numbers I and II . . . an Analysis of a General Map of the Middle British Colonies. . . .* Historical Society of Pennsylvania, Philadelphia, 1939.—Evans was a surveyor, engineer, engraver, traveller and map maker. He made many important geological observations and gave the first description of physiographic divisions of the United States. This finely printed book includes facsimiles of Evans' Map and "Analysis."


**FORSTER, Westgarth.** 1772-1835. Nall, W. (Memoir of) *Westgarth Forster,* in Forster, Westgarth, A Treatise of the Section of the Strata from Newcastle-upon Tyne to Cross Fell with remarks on Mineral Veins . . . Third edition, revised and corrected to the present time by the Rev. W. Nall, M.A. . . . Andrew Reid, Newcastle: Edward Stanford, London, 1883.—Forster was a mining engineer and geologist (financially unsuccessful) who first recognized cyclic sedimentation in Carboniferous rocks, produced elaborate stratigraphic columns and described relation to lead ore to stratigraphy and structure. His work is mainly known from the second edition (1821) as the first (1809) is very rare. The three editions vary considerably. Forster deserves a modern study and evaluation.


HARTT, Charles Frederick. 1840-1878. Menezes, C. A. de Biographia do Professor Carlos Frederico Hartt. Rio de Janeiro, 1878.—Brief study of the first professor of geology at Cornell University and pioneer in the geology of Brazil.

Wright, A. H. Pre-Cornell and Early Cornell II. Letters to C. F. Hartt, first Professor of Geology at Cornell. A cross-section of the Agassiz Period.—Letters of 1863-1879 to Hartt, by many important scientists which pertain to science of the time.

HEILPRIN, Angelo. 1863-1907. Pollock, G. Michael Heilprin and his sons. Dodd, Mead, New York, 1912.—Michael was editor of the Nation. Louis, the encyclopedist, was his first son; Angelo, the geologist, his second.


HITCHCOCK, Edward. 1793-1864. Reminiscences of Amherst College, historical, scientific, biographical and autobiographical; also of other and wider life experiences. Bridgeham and Childs, Northampton, Mass., 1863.—Professor of geology at Amherst, sometime state geologist of Massachusetts and Vermont. Did excellent work in many kinds of geology, including early work on glacial drift.


HOUGHTON, Douglass. 1809-1845. Bradish, A. Memoir of Douglass Houghton. Raynor & Taylor. Detroit, 1889.—Includes reprints of geological writings of Houghton, pioneer Michigan geologist, who was also physician and explorer.


HUMBOLDT, Alexander von. 1769–1859. Anonymous. *The Life, Travels and Books of Alexander von Humboldt.* With an Introduction by Bayard Taylor. Rudd & Carelton, New York, 1859.—There are many biographies of this German geologist, traveller, explorer, botanist and philosopher who wrote 74 books on these subjects. This is not the best one.


De Terra, H. *Humboldt; the life and times of Alexander von Humboldt,* 1769–1859. Alfred A. Knopf, New York, 1955.—Well-written modern work on Humboldt’s “long and fabulous life” with some summary of his scientific work; stresses American connections.


JEFFERSON, Thomas. 1743–1826. Martin, E. T. *Thomas Jefferson: Scientist.* Henry Schuman, New York, 1952.—Jefferson’s scientific activities were remarkable. His interests in vertebrate paleontology are well known.

JOLY, John. 1857–1883. *Reminiscences and anticipations.* Fisher Unwin, London, 1920.—Professor of geology and mineralogy at the University of Dublin, Joly is perhaps best known to geologists as the author of the salt-content method of estimating the age of the oceans. This volume contains only scattered reminiscences.


KANE, Elisha Kent. 1820–1867. Elder, W. *Biography of Elisha Kent Kane.* Childs & Peterson, Philadelphia: Sheldon, Blakeman & Co., New York, 1868.—The Arctic explorer who made some geological and glaciological observations. His own books on explorations are more interesting than the biography.


LAMARCK, J. B. P. A. de M. de. 1744-1829. Packard, A. A. *Lamarck, the Founder of Evolution, his Life and Work, with Translation of his writings on organic Evolution.* Longmans, Green, New York, 1901.—Apparently the first book devoted to the life and work of the celebrated zoologist, paleontologist, and evolutionary pioneer.


LEHMANN, Johann Gottlob. 1660-1709. Freyburg, B. v. *Johann Gottlob Lehmann (1719-1767) Ein Arzt, Chemiker, Metallurg, Bergmann, Mineraloge und grundlegender Geologe.* Universitsbund Erlangen, 1955.—Exhaustive biography, genealogy, and bibliography of a man of whom little detail has been known. Lehmann made important observations in several sciences and especially on kinds of mountains, classification of strata and origin of ores.


HAGBERG, K. H. *Carl Linne,* "Le Roi des Fleurs." (transl. from Swedish by Hammer and Metzger.) "Je Sers," Paris, 1944.—An attempt to reveal the real man behind the celebrated systematist.


SMITH, J. E. *A selection of the correspondence of Linnaeus and other naturalists.* Longmans, Hurst, Rees, etc., London, 2 vols., 1821.—Important source material on Linnaeus.


LITTLE, George. 1838-1924. *Memoirs of George Little.* Tuscaloosa, 1924.—Professor of geology at the University of Mississippi.


Bonnely, T. G. *Charles Lyell and Modern Geology.* Macmillan, New York, 1895.—Based upon the “Life and Letters,” but a more connected biography.


MCGEE, William John. 1863-1912. Mcgee, E. R. *Life of W. J. McGee.* Farley, Iowa, 1915.—McGee was a self-educated geologist, anthropologist, hydrologist and scientific organizer. He was not noted for modesty.

MACLURE, William. 1763-1840. Morton, S. G. *Memoir of William Maclure, Esq.* Academy of Natural Sciences of Philadelphia, printed by T. K. and P. G. Collins, 1841.—Brief (37 pp.) biography of the so-called “Father of American Geology.” It is time high for a comprehensive biography of Maclure, altho his thoroughly Wernerian work was no better than that of Volney, Mitchill, and others.


MARCY, Oliver. 1820-1899. *In memoriam . . . Oliver Marcy, LL.D.* n.p., n.d.—Professor of geology at Northwestern University.


MICHELL, John. 1724-1798. Geikie, A. *Memoir of John Michell.* Cambridge Univ. Press, 1918.—Michell was “Fellow of Queen’s College in Cambridge, 1749, Woodwardian Professor of Geology in the University, 1762” who understood continuity of strata and folded structures.


Miller, H. *My Schools and Schoolmasters; or, the Story of My Education.* Thomas Constable and Co. Edinburgh, 1858. (other editions, including Boston, 1863).—The best account of the early life of Hugh Miller.
Watson, J. L.  The life of Hugh Miller.  1880.
The centenary of Hugh Miller, being an account of the celebration held at Cromarty on 22nd August, 1902.  Univ. Press, Glasgow, 1902.

MITCHELL, Elisha.  1798–1857.  Phillips, C.  A Memoir of the Rev. Elisha Mitchell, D.D., Late Professor of Chemistry, Mineralogy & Geology in the University of North Carolina.  Chapel Hill, 1858.—Mitchell was all-round naturalist; wrote textbooks in geology and died exploring present Mt. Mitchell.

MITCHILL, Samuel Latham.  1764–1831.  Hall, C. R.  A Scientist in the Early Republic, Samuel Latham Mitchill, Columbia Univ. Press.  New York, 1934.—A fair study of one of the very important early “all-round” scientists of America, friend and helper of many others; the first real contributor to the geology of New York State.

MURCHISON, Roderick Impey.  1792–1871.  Geikie, A.  Life of Sir Roderick I. Murchison.  2 vols., John Murray, London, 1875.—Well-written, like all of Geikie’s works.  Murchison was one of the great figures of the formative years of geology and elaborator of the Silurian System.


ORTON, Edward.  1828–1899.  (various).  In Memoriam, Edward Orton, Ph.d., LL.D., Addresses delivered at the Ohio State University, Sunday, November 26, 1899.  Printed by the University, Columbus, 1899 (?).—Includes among other essays a biographical sketch (anon.) and essay on Orton as geologist by G. K. Gilbert.  Orton was teacher, administrator, geologist and gentleman.

OWEN, David Dale.  1807–1860.  Hendrickson, W. B.  David Dale Owen, Pioneer Geologist of the Middle West.  Indiana Historical Collections, vol. 27, Indiana Historical Bureau, Indianapolis, 1943.—Owen was one of the most tireless and able of the early American geologists.


La Rocque, A.  The Admirable Discourses of Bernard Palissy.  Univ. of Illinois Press, Urbana, 1957.—A critical translation of Palissy’s great work of 1580, with extensive notes and introductory essay dealing with Palissy’s life and scientific contributions.

Morley, H.  Palissy the Potter, the life of Bernard Palissy of Saintes.  Chapman & Hall.  London. 2 vols. 1852: Ticknor, Boston, 1853.  (Other eds., 1855, 1865, 1878.—Imaginative biography of the famous maker of “rustic figulines” and important forerunner of inductive science who had modern notions of origin of salt, of ground water and artesian wells and partly modern ideas of origin of fossils.  Morley includes long passages from Palissy’s works, varying from free translations to paraphrases.


PLAYFAIR, Lyon. 1818–1898. Reid, W. Memoirs and Correspondence of Lyon Playfair, first Lord Playfair of St. Andrews. Harper and Brothers, New York and London, 1899.—Early organic chemist (studied under Liebig) who was chemist to Geological Survey, knew royalty and all the great and was politically rewarded. Distant connection of John Playfair.


Gilbert, G. K., ed. John Wesley Powell; a Memorial to an American Explorer and Scholar. Chicago. 1903. (Reprinted with slight changes, from The Open Court, vols. 16, 17.)—Powell was one of the founders of the United States Geological Survey, famous for his geological explorations in the West.


PUMPELLY, Raphael. 1837–1923. Pumpelly, R. My Reminiscences. 2 vols. Henry Holt, New York, 1918.—One of the most readable of scientific autobiographies, well-known for its real adventure and anecdotes of this pioneer economic geologist.


Fitzpatrick, T. J. Rafinesque, a sketch of his Life, with Bibliography. Historical Department of Iowa, Des Moines, 1911.—Brief but excellent biography and bibliographic description of 941 Rafinesque publications and 134 items referring to him.


RAO, B. Rama. 1893–. Recollections of an Indian geologist. Mysore Geologists' Assoc., Bangalore, 1953.—One of India’s distinguished geologists, Director of the Mysore Geological Department and later Director of the Indian Bureau of Mines.


RAY, John. 1628–1705. Derham, W. Select Remains of the Learned John Ray. M. A. and F. R. S., with his Life. George Scott, London, 1740.—Summary of Ray's life with some additional material. Ray is known primarily as a botanist, but his geological observations and writings—not sufficiently recognized by historians of geology—were extensive, penetrating and essentially modern.


RAYMOND, Rossiter Worthington. 1840–1918. Rickard, T. A., ed. *Rossiter Worthington Raymond, a Memorial.* Am. Inst. Min. Engr., New York, 1920.—Trained at Frieberg as were Pumpelly and other Americans, Raymond was mining engineer, metallurgist, lawyer, churchman, author, editor, and organizer and long-time guiding officer of the American Institute of Mining Engineers. His work touched economic geology and geologists at many points.

Various. *Dinner Given to Rossiter Worthington Raymond by his Friends in Commemoration of his seventieth Birthday, April 27, 1840. Saturday April the thirtieth, one thousand nine hundred and ten, The Plasa, New York.* 1910.—Sumptuous report of laudatory speeches. (Copies may have guest’s name imprinted on leather cover.)


SAY, Thomas. 1787–1834. Weiss, H. B., and G. M. Ziegler. *Thomas Say, early American Naturalist.* Thomas, Springfield, Ill., 1931.—Say, who thought little of anything but his invertebrates, was a wistful and gentle figure in the roaring times when the midwest was the frontier.


STENSEN, Niels (Nicholas Steno). 1631–1686. Plovgaard, K. *Niels Stensen: Anatom, Geolog og Biskop.* Pauluskreden, Copenhagen, 1953.—The first biography of Steno appeared in 1686. Plovgaard's is but the latest of many subsequent studies of one of the greatest pioneers of geology, but tells little of his geological work (for which see Sherz, 1956).


SWEDENBORG, Emmanuel. 1688–1772. Nathorst, A. G. *Emmanuel Swedenborg as a Geologist.* Vol. 1, Sect. 1 of *Emmanuel Swedenborg as a Scientist.* Afterbolodets Tryckeri, Stockholm, 1908.—Swedenborg's fame as philosopher and theologian obscures his extensive and prescient work in geology, paleontology, mineralogy and metallurgy. Excellent brief study with references.


WARD, Lester Frank. 1841-1913. Chugarama, S. *Lester Ward, the American Aristotle.* Duke Univ. Press, Durham, N. C., 1939.—This pretentious book on Ward’s sociological diversions barely mentions this self-made, indomitable and indefatigable polyhistor’s extensive work in geology and paleobotany.

Cape, E. P. *Lester F. Ward, A Personal Sketch.* Putnam’s, New York, 1922.—Completely ignores Ward’s work in paleobotany, useless from a scientific standpoint, hardly readable otherwise.

WERNER, Abraham Gottlob. 1749-1817. Beck, C. R. *Abraham Gottlob Werner, eine kritische Wurdigung des Begründers der modernen Geologie, zu seinem hundertjährigen Todestage.*—Werner was the great neptunist. A great teacher, classifier and mineralogist, his attempts to explain all geology on the basis of a small area in Germany actually retarded geological advances for many years.


WILLIAMS, George Huntingdon. 1856-1894. Williams, T. *Biography of George H. Williams.* New York, 150 p., 1896.—Professor of geology at Johns Hopkins, mineralogist, petrographer, and student of metamorphic geology.

WRIGHT, George Frederick. 1838-1921. Wright, G. F. *Story of my Life and Work.* Bibliotheca Sacra, Oberlin, Ohio. 1916.—Not very geologically revealing autobiography of a clergyman and professor of theology at Oberlin who worked extensively and independently in glacial geology, but not always in agreement with all others.

WHITNEY, Josiah Dwight. 1819-1896. Brewster, E. T. *Life and Letters of Josiah Dwight Whitney.* Houghton Mifflin, New York, 1909.—Whitney was primarily an economic geologist known for his work in New England, the Lake Superior region, Iowa and California. Excellent biography relating the man to his times and fellow geologists.