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# BIOGRAPHICAL MEMOIR

OF

CHARLES ABIATHAR WHITE 1826-1910

ΒY

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### CHARLES ABIATHAR WHITE.

The first American ancestor of the subject of this memoir was William White, of Boston, Mass., who settled at what was then called Windmill Point, about 1640. William's grandson, Cornelius White, purchased a tract of land in Taunton, Mass., as a homestead, part of which extended within the adjacent town of Dighton. Here Cornelius moved about 1700, and successive generations bearing the name have owned and occupied the farm ever since. So attached to their home were the members of the family that, according to the notes of Doctor White (which have been largely utilized in preparing this memoir), for five generations no member of the family ever strayed fifty miles from the original homestead. In the local public affairs of their community, however, they are recorded as having taken an active part. The great-grandfather of Dr. White, Cornelius White, was a captain of militia during some of the colonial wars of his time, and on the breaking out of the war of independence was made a member of the "Committee of Inspection, Correspondence, and Safety," organized to promote the patriot cause. His son, Cornelius, junior, though barely twenty years old, enlisted in the Revolutionary forces immediately after the battle of Lexington. After the success of the struggle both returned to their Dighton farm. Abiathar White, son of Cornelius White, junior, married Nancy, daughter of Daniel Corey, of Dighton. Their second son, born at Dighton January 26, 1826, was named Charles Abiathar and is the subject of this memoir.

In 1838 the family removed to settle at the site of Burlington, in the Iowa Territory. There, subject to the hard conditions of pioneer life and with small and irregular opportunities for education, the boy grew to manhood. Doubtless the bias toward the study of nature was inborn, but the life in a new country full of birds and animals differing from those to which he had been accustomed in earlier years in Massachusetts must have been full of interest to the youth entering on his teens. The richness of the rocks of the region in well preserved and attractive fossils may well have been a stimulus toward the career on which he finally entered.

On attaining his majority in 1847 he revisited the east and the following year was married to a schoolmate of his childhood, Charlotte R. Pilkington, daughter of James Pilkington, of Dighton. This union proved ideal, and nearly fifty-four years of happy married life was granted them before the death of the beloved wife and mother, July 16, 1902.

His eastern travel and experiences, meeting with the scientific men of the day, greatly stimulated his inherent love of nature. He returned with his young wife to Burlington in 1849, and then began a systematic study of the natural history of the region in which he lived.

In those days, when a purely scientific career was almost unknown in America and reserved for those whose financial situation rendered them more or less independent, the inevitable resource of the average student was found in the study and practice of medicine.

He began his studies a few years after his return to Iowa, entering, as was then the practice, the office of S. S. Ransom, M. D., a leading practitioner, as a medical student. Having been known to his preceptor since boyhood, he received cordial aid and encouragement in his studies. These were followed by one full course of lectures in the Medical School of Michigan University and a period of study in the Rush Medical College of Chicago, which is now the medical department of the University of Chicago. Here he received the degree of doctor of medicine. His studies in geology and on the fossils of Iowa became known to Prof. James Hall, of Albany, state geologist of New York, who induced him to accept a position as his assistant, which Dr. White held during 1862 and 1863. As with most of the assistants and pupils of this masterful and eager paleontologist, friction developed in the course of time. and in 1864 Dr. White returned to Iowa and entered upon the practice of medicine at Iowa City.

The desirability of a geological survey of the state had become evident to progressive citizens of Iowa, and in 1866 such a survey was established by the legislature. Dr. White received the appointment of state geologist and entered upon his duties in this capacity in April, 1866. The survey continued for four years, issuing two volumes of reports on the economic and structural geology, but came to an end by the failure of the legislature to appropriate funds for its support, in 1870.

In 1866 he received the honorary degree of master of arts from Iowa College, and in 1867 was appointed to the professorship of natural history in Iowa State University, giving part of his time to the university during the continuance of the state survey, and afterward taking up the whole duty of the professorship. In 1873 he accepted a call to a similar professorship in Bowdoin College, and removed with his family to Brunswick, Maine.

In addition to his college duties, at the request of Lieut. G. M. Wheeler, U. S. A., in charge of the government surveys west of the 100th meridian, he undertook, in 1874, the publication of the paleontology of that survey.

The activities of the various governmental surveys of that period, more or less in rivalry with each other as to the production of scientific results, afforded greater opportunities for research-work in those lines than ever before. An opening presenting itself for such work, far more congenial to him than teaching, led Dr. White to resign his professorship and join the U. S. Geological Survey of the Rocky Mountain Region, directed by Major J. W. Powell, in 1875. The following year he was appointed by Dr. F. V. Hayden, directing the U. S. Geological Survey of the Territories, to complete and edit unfinished paleontological work left at the death of F. B. Meek, in 1876. He remained with the Hayden Survey until it was suspended in 1879. At this time he was appointed one of the salaried curators of the U. S. National Museum, in general charge of the paleontological collection.

In 1882 the geological work of the government was reorganized as the United States Geological Survey, under Clarence King as director, and Dr. White was engaged as geologist by the survey, continuing in its service until his resignation in 1892. During 1882 he was detailed as chief of a commission on artesian wells in the Great Plains, organized by the U. S. Department of Agriculture. After his return to his regular duties, he was requested by the director of the National Museum of Brazil to prepare a report on collections of Mesozoic fossils which had been made by members of the Brazilian Geological Survey. The report was published in the Archives of the Museum at Rio, in both Portuguese and English, in 1887.

Dr. T. W. Stanton, in a review of Dr. White's work and his services to the U. S. National Museum, prepared for the Annual Report, has the following remarks:\*

During all the years of Dr. White's service with the various government surveys his office work was done in the National Museum, where he was actively connected with the care and preservation of the collection of invertebrate fossils to which his field work so largely contributed. He came to the institution at a critical period in the history of its paleontologic collections. Professor F. B. Meek, who had long had charge of them, had recently died and new material was rapidly coming in from the various surveys and exploring expeditions in the western territories. Dr. White immediately took up the work of properly caring for the collections, at first unofficially and afterward as curator. His infimate acquaintance with Professor Meek and his work, his knowledge of the subject and his systematic, painstaking habits enabled him to render invaluable service at that time. Scattered types were recognized, catalogued, and fully labeled; those that had not been illustrated were figured, and the records and collections of the whole department were systematized. After retiring from the active duties of a curatorship he continued his connection with the National Museum as associate in paleontology.

He was one of the founders of the Geological Society of America. The State University of Iowa conferred upon him in 1893 the degree of doctor of laws, *honoris causa*. He was president of the Biological Society of Washington during the years 1883 and 1884. He joined the American Association for the Advancement of Science in 1868, later becoming a fellow, and was elected vice-president for the section of geology in 1888. In 1889 he was elected a foreign member of the Geological Society of London.

After Dr. White's retirement from active service he employed his time partly in botanical studies and to some extent in popular and reminiscent contributions to periodicals. He prepared biographical memoirs of deceased friends, three of whom, Meek, Engelmann, and Newberry, were members of

<sup>\*</sup> Ann. Rept. U. S. Nat. Mus., 1910 [1911], p. 72.

the Academy, and in similar ways utilized the time of waiting which comes to most men who pass three score and ten. Up to a short time before the end he was remarkably alert, active, and interested in the progress of his favorite branches of science.

He died June 29, 1910, in Washington, D. C., and his remains are interred at Rock Creek Cemetery. Of eight children four sons and two daughters survive him.

The character of Dr. White's life work can best be understood through an examination of the accompanying bibliography, in which, however, no attempt has been made to include fugitive papers in the daily or weekly press or other similar matter not of scientific importance.

In general he was engaged in pioneer descriptive work in paleontology and geology, which he did with care, precision, and clearness. In his later works the attempt to treat his data philosophically is very evident. The mass of his publications is very considerable. Among those especially useful to later students are his summaries of American non-marine fossils and of American fossil Ostreidæ. He traveled extensively abroad and made the acquaintance of many foreign paleontologists, with whom he maintained friendly relations. Much of his correspondence and other papers and articles of interest are deposited in the State Historical Department of Iowa at Des Moines; as, though from 1876 a resident of the city of Washington, he preserved a sturdy pride in the state in which the formative period of his life was passed.

Dr. White became a member of the Academy in 1889. He was elected a corresponding member of the following scientific societies at the dates mentioned :

1880-Academy of Natural Sciences, Philadelphia.

1893-Geological Society of London.

- 1893-Isis Gesellschaft für Naturkunde, Dresden.
- 1893-R. Accademia Valdarnese del Poggio, Montevarchi, Italy.
- 1893-K. K. Geologische Reichsanstalt, Vienna.
- 1894—Kaiserliche Leopoldinisch-Carolinische Deutsche Akademie der Naturforscher. Halle an der Saale, Germany.

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