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BIOGRAPHICAL MEMOIR

OF

WILLIAM HENRY HOLMES

1846—1933

BY

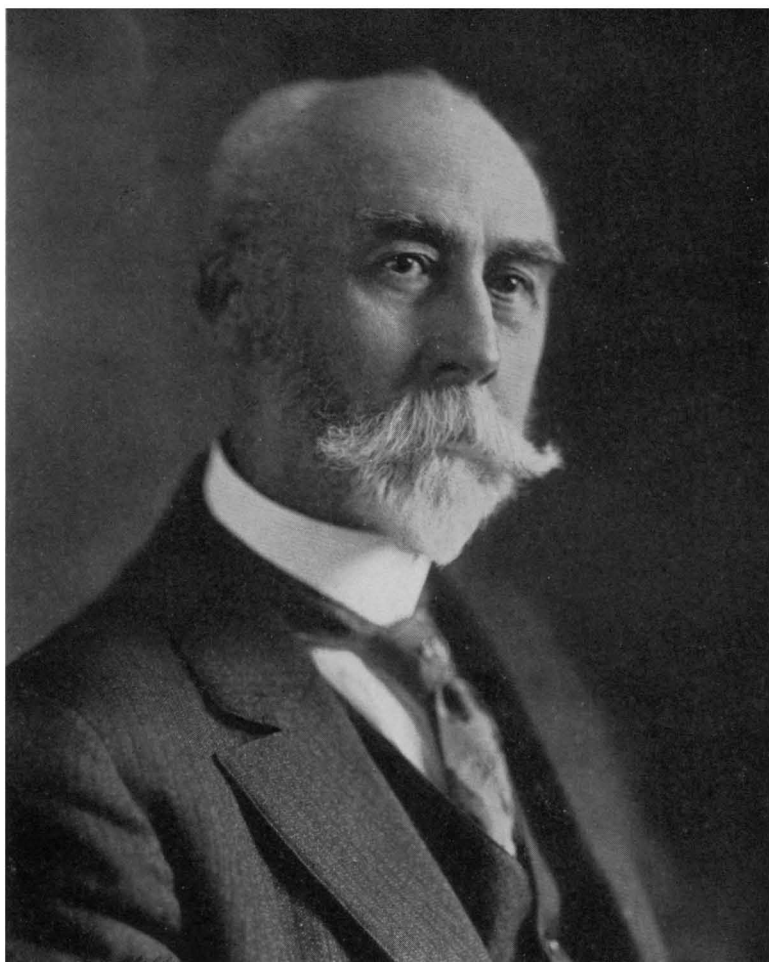
JOHN R. SWANTON

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*W. H. Holmes.*

**WILLIAM HENRY HOLMES**  
**1846-1933**

BY JOHN R. SWANTON

I

Alliance of the scientific and artistic abilities in eminent men is by no means rare but in comparatively few cases have they been so evenly developed or furnished such consistent support to each other as in the case of Dr. Holmes. Although he occupied scientific positions and was engaged in scientific work during the greater part of his life, his earliest instincts tended rather toward the graphic arts, he first attracted attention because of his gifts in that direction, received his premier appointment as an artist, and terminated his public career as director of a gallery devoted to the arts.

The farm near Cadiz, Harrison County, Ohio, on which Holmes's parents, Joseph and Mary Heberling Holmes, lived at the time of his birth was a subdivision of the original grant to his grandfather made in 1800, and he represented the eighth generation of the Holmes family in America. He was fond of recalling the fact that his birthday, December 1, 1846, fell in the same year as that of the Smithsonian Institution with which so much of his later life was to be identified.

His mother having died when he was ten, Holmes lived for a year with his grandparents at Georgetown, two and a half miles away. From the country schools he passed in 1865 into the McNeely Normal School at Hopedale, graduated in 1870, and from that institution in 1889 he received the honorary degree of A.B. During his undergraduate period he taught in the country schools at Red Hill, Science Hill, and Beech Spring, and he suspended his normal school work during most of the winter of 1866-67 when he made two unsuccessful endeavors to follow his artistic leanings by obtaining instruction from artists in Steubenville and Cleveland. Mr. E. F. Andrews of Steubenville, to whom he first applied, was later Principal of the Corcoran School of Art at Washington while Holmes was Curator of the

National Gallery of Art, and when Andrews died in October, 1917, and a tablet was dedicated to his memory in the Corcoran Gallery, Dr. Holmes was present and delivered an address in his honor. His second quest for education in art was made during the spring of 1867 when he spent one term at the Willoughby Collegiate Institute in Cleveland, the artist of whom he sought instruction being Miss Caroline Ransome.

In 1870-71 Holmes was teacher of geography, natural history, drawing, and painting at the McNeely Normal School, but, concluding that if he were going to continue teaching he must secure a more thorough training, he made arrangements to enter the State Normal School at Salem, Massachusetts. In April, 1871, however, before this plan could be carried out, he obtained an introduction to Theodore Kauffman, a painter of much local repute in the national capital, and soon afterward proceeded to Washington to enter his school.

It happened that Mary Henry, daughter of the first Secretary of the Smithsonian Institution, was also a pupil of Kauffman and through her Holmes soon learned of the existence of that Institution and proceeded to acquaint himself with it. On his very first visit, however, while sketching a brightly colored bird exhibited in one of the showcases, he attracted the attention of a young Costa Rican naturalist, Dr. José Zeledon, who, recognizing his ability, introduced him in turn to the scientists of the Institution and he was soon engaged by Dr. F. B. Meek, the paleontologist, to draw fossil shells, and by the eminent naturalist Dr. W. H. Dall to sketch shells of living species of mollusks.

This experience led, in May, 1872, to an appointment as artist to the U. S. Geological Survey of the Territories under Dr. F. V. Hayden, and he accompanied the party to the Yellowstone region, made into a park that same year, where he had ample opportunity to demonstrate his skill with the pencil and also to build up considerable reputation for himself as a mountain climber. He bestowed its name upon Great Fountain Geyser, the principal geyser of the Lower Geyser Basin of the Yellowstone.

The following winter was spent in preparing maps and illustrations for the Survey, and in the summer of 1873 he was with a party engaged in mapping out the Territory of Colorado from

Denver as a base. His reputation as artist and as mountain climber was much enhanced during this expedition, and he made what is supposed to have been the first ascent of the Mountain of the Holy Cross.

Holmes had now so far mastered field geology as to be appointed an Assistant Geologist the year following when he aided the Director in his studies of the mountain masses of central Colorado, and in the summer of 1875 he was given personal charge of a party assigned to the survey of the San Juan valley in New Mexico and Arizona. Reports on this work consumed most of the following winter and later he was occupied with the preparation of exhibits for the Centennial Exhibition at Philadelphia. Next summer he was, with A. D. Wilson, engaged on the primary triangulation of the great mountain systems of Colorado, and incidentally he climbed a dozen or more peaks of about 14,000 feet elevation, including all the more famous ones. He notes that he made the ascent of about thirty mountains altogether, and he gave names to seven.

Throughout 1877 Holmes was in Washington preparing reports, maps, and illustrations for the Survey, but he was again in the field during the season of 1878 when he followed the Wind River Mountains and Snake River up into Yellowstone Park. On the way a short stop was made to observe the total eclipse of July 29, Holmes executing some drawings of the corona in color.

Because of an important contribution made by him to the laccolitic concept of mountain building, Prof. Gilbert bestowed his name in 1877 upon a peak in the Henry Mountains, and in 1878 Henry Gannett, chief topographer to the Survey, with the approval of Director Hayden, gave the name Mt. Holmes to another in the Gallatin Range of Yellowstone Park in recognition of the part Holmes had played in the work of that year. Dr. C. A. White, the paleontologist, named a fossil shell *Unio holmesianus*, and at a later date a striking elevation along the Colorado Canyon was called Holmes Tower by George Wharton James.

In June, 1879, Holmes interrupted his geological work to visit Europe where he spent the remainder of that year and half of the year following. He examined collections in the noted museums and galleries, and before his return made sketching

trips to Rome, Venice, Naples, and other Italian cities, but during most of the winter worked in Munich in the American art colony of which Frank Duveneck was the leading spirit.

The Hayden Survey having been discontinued by Congress at the end of 1879 to make way for the new U. S. Geological Survey under Clarence King, Holmes, immediately after his return from Europe, was given the task of closing up the affairs of the former and this took much of his time during 1880 and 1881. January 1, 1881, he was appointed a temporary Assistant Geologist in the new Survey and this was made permanent two months later. He was now directed to join Major Clarence E. Dutton, Geologist, in surveying the Grand Canyon of the Colorado, and his panoramic views of this natural wonder, the principal from Point Sublime, are often cited as classic examples of the highest possibilities in applying the graphic art to geology. The following year he drew these panoramas in pen line and in color for reproduction in the atlas of Colorado, and prepared the maps for this great volume.

July 1, 1883, Holmes's title was changed to that of Geologist, and he continued in that capacity until June 30, 1889, when he resigned from the Survey to accept appointment as Archeologist in the Bureau of American Ethnology.

## II

This last movement was, however, merely the culmination of interests which had been set in motion as far back as 1875 during Holmes's visit to the valley of the San Juan, a country covered with remains of the so-called "Cliff Dwellers," remains which he examined with interest and took care to report upon along with his discussions of the strictly geological features. He made some incidental observations on Indian remains in North Carolina in 1877. In 1878, on his second visit to the Yellowstone, he studied and reported upon the aboriginal obsidian quarries there and the Indian implements found about them. On the establishment of the Bureau of American Ethnology in 1879 he was given supervision of all the illustrations entering into its publications and soon began studying the archeological collections in the National Museum, particularly the objects of shell and pottery. In 1882 this interest was recognized and facilitated

by an honorary appointment in the Museum as Curator of Aboriginal Pottery.

In October, 1883, Holmes married Miss Kate Clifton Osgood and soon afterward built a home at 1454 Belmont St., Washington, which he continued to occupy, with one brief interruption, until the death of his wife in 1925 when he transferred his living quarters to the Cosmos Club and remained there as long as he continued in the Capital City. Two sons, Osgood Holmes and William Heberling Holmes, were born of this marriage and with the latter, at Royal Oak, Michigan, he passed the last months of his life.

In the spring of 1884 he spent two months in Mexico traveling in a special car as the guest of Mr. and Mrs. Chain, professional photographers, the noted photographer, W. H. Jackson, being also a guest. This gave Holmes a new opportunity to study "peoples, museums, ancient ruins and a number of the great volcanic mountains," but his first strictly anthropological field experience came in August, 1887, when he was asked to join a party of scientists planning three months' field work to be mainly devoted to the Indian tribes and ancient ruins of New Mexico and Arizona. Besides Secretary Langley of the Smithsonian Institution, this party included Major J. W. Powell, Director of the Geological Survey and of the Bureau of American Ethnology; James Stevenson, Assistant to Dr. Hayden, and Matilda Coxe Stevenson. Holmes's participation in this scientific enterprise was cut short, however, about the end of September, in a most painful manner by severe injuries brought on in the long and laborious descent of Jemez Mountain, so that it was necessary to take him to the nearest railroad station and send him back to Washington. In a few weeks he had recovered but he afterwards found it necessary to avoid any severe strain affecting the spine.

In the meantime, Holmes's experience acquired in connection with the Centennial Exhibition of 1876 had been enlisted in the preparation of exhibits for the expositions at New Orleans (1883-4) and Louisville (1884), and he performed a similar service for the Centennial Exposition of the Ohio Valley at Cincinnati in 1888.

After his appointment to the Bureau of American Ethnology in 1889 to take charge of its archeologic field work, Holmes made an exhaustive study of the Indian quarries on Piney Branch Creek and the west side of Rock Creek in the District of Columbia and later extended his survey to include the entire valley of the Potomac and the region west of it as far as the Alleghany, as also the tidewater sections of Maryland and Virginia. Incidental trips were made to mound groups in Wisconsin, Arkansas, Georgia, Mississippi, and Ohio, the novaculite quarries at the Hot Springs of Arkansas, quarries at Flint Ridge, Ohio, and in the northeastern part of the present Oklahoma, and the red pipe-stone quarries of Minnesota, besides the aboriginal copper mines on Isle Royale, Lake Michigan. In 1892-93 he examined the site of the famous Trenton finds in the Delaware Valley.

Much of this work was motivated by a heated discussion among the archeologists of the period as to the occurrence of paleolithic implements in America similar to those in the Old World. Numbers of crudely flaked stones had been collected and gathered into museums under the name of "paleoliths" and finds of such implements in situ were reported from various places in North America, particularly the Delaware Valley, where it was claimed that human artifacts had been found under glacial gravels, while remains indicating a far greater antiquity were reported from California. Noting the striking resemblance of most of these so-called "paleoliths" to rejected material he had observed about Indian workshops, Holmes took a pronounced stand against the validity of the paleolithic theory as applied to America, and, so far as the bulk of this material was concerned, his views were soon triumphantly substantiated, the protagonists of any but a very moderate antiquity for man in America being placed wholly on the defensive, though it should be added that Holmes himself perhaps inclined somewhat too far in the opposite direction.

While this controversy was going on, Holmes also devoted a large share of his time to the preparation of monographs on the textiles, the lithic and the ceramic arts of the American Indians, works which brought him his first general recognition among anthropologists. For his report on "Stone Implements of the Potomac-Chesapeake Tidewater Province" he was awarded the



First Loubat Prize amounting to \$1000, as the best work on "the history, geography, archaeology, philology, or numismatics of North America" to appear during the five year period 1894-98. About thirty years later, in 1923, he was awarded the Second Loubat Prize for his "Handbook of Aboriginal American Antiquities."

In 1892, owing largely to the influence of his friend, the famous geologist T. C. Chamberlin, Holmes was appointed non-resident Professor of Anthropic Geology in the University of Chicago, the year following he spent largely in Chicago superintending the installation of Smithsonian exhibits at the World's Columbian Exposition, and in 1894 he was induced to resign from the Bureau of American Ethnology to accept the Curatorship of Anthropology in the newly established Field Columbian Museum. On May 16 a farewell banquet was tendered him by his friends and associates in Washington at which he was presented with a silver loving cup bearing an appropriate inscription.

During the winter of 1894-95 Holmes enjoyed an unusual treat in the opportunity afforded him to visit Yucatan and the neighboring parts of Mexico as the guest of Mr. Allison Armour on the latter's yacht, the *Ituna*, and the sketches made by him at this time served to render his "Archeological Studies among the Ancient Cities of Mexico" (printed in 1895) a publication of unique interest and importance.

In 1896 Holmes was for a brief period acting director of the Field Museum, but the Chicago situation not having developed in an entirely satisfactory manner, the year following he yielded to the earnest solicitations of Dr. Charles D. Walcott, then Assistant Secretary of the Smithsonian Institution, and returned to Washington to fill the position of Head Curator of the Department of Anthropology in the U. S. National Museum. One passage in the letter in which he intimates his willingness to return is worthy of perpetuation along with other memories of him. He says:

"Considering all phases of the case, however, I am ready to say that if an opening should develop for me in Washington. . . . I should be deeply gratified, but I beg that you will not feel for a moment that you must provide for me and especially I would

stipulate that, whatever is done, other worthy people should not suffer on account of my ambitions.”

In 1898 he was in charge of the Smithsonian exhibits at the Trans-Mississippi and International Exposition at Omaha, and during the last three months of that year, in company with W J McGee, he visited the soapstone quarries on Catalina Island, California, besides investigating the circumstances under which the famous Calaveras skull had made its appearance, which he quickly and justly suspected of involving an imposture or at least a serious error. A small ethnological collection was made also from the Pomo, Tulare and other Indians. In 1899, in company with Dutton, Gilbert, and W. W. Blake, a friend residing in Mexico, he made a tour of that republic as the guest of Mr. George W. Breckenridge, a banker of San Antonio, Texas, in the course of which he visited the obsidian quarries near Pachuca in the State of Hidalgo. In February and March of 1900 he accompanied Major Powell to Cuba and Jamaica in an attempt to obtain data regarding possible lines of migration between the southern and northern continents, and when they were joined by Secretary Langley, he used his talents to assist the latter in his study of the flight of the turkey buzzard, “the object being to learn something of the secrets of flight and their possible application to the development of the flying machine.” A third visit to Mexico followed involving further studies of both a scientific and an artistic nature.

In 1901 Holmes visited an aboriginal flint quarry in Union County, Illinois, in company with Dr. W. A. Phillips of the Field Columbian Museum, and afterwards went to the northeastern part of Indian Territory, the present Oklahoma, with De Lancey Gill, illustrator for the Bureau of American Ethnology, to examine the contents of a spring which had been used as a shrine by the aborigines, and to the salt spring region near Kimmswick, Missouri. This last was revisited in company with Mr. Gerard Fowke the year following, 1902, and considerable prehistoric Indian material obtained. Subsequently he investigated the locale of the skeleton known as the Lansing Man. The same year he had charge of Smithsonian exhibits at the Pan-American Exposition at Buffalo, and the South Carolina Interstate and West Indian Exposition at Charleston.

On October 11, 1902, Holmes was appointed to the headship of the Bureau of American Ethnology made vacant by the death of Major J. W. Powell, its founder, on September 23 preceding, but he did so with the stipulation that his designation should be merely that of Chief instead of Director, and that he should serve at a reduced salary. His connection with the Museum was preserved, through the bestowal upon him of the honorary title of Curator of Prehistoric Archeology in that institution. The following year he visited quarry sites at Leslie, Missouri, and in Georgia and Alabama, and he was at the same time instrumental in establishing a Division of Physical Anthropology in the Museum with Dr. Aleš Hrdlička at its head. In 1904 he attended and took part in the Fourteenth International Congress of Americanists at Stuttgart, Germany, as representative of the United States Government, the Smithsonian Institution, the National Geographic Society and other bodies, expending considerable time also in visiting various museums and studying certain of their features for subsequent use in designing the new building of the National Museum now known as the Natural History Building. The anthropological exhibits of the National Museum and the Bureau of American Ethnology at the Louisiana Purchase Exposition, St. Louis, 1904, were prepared under his direction as were those at the Jamestown Tri-Centennial Exposition at Hampton Roads, Va., in 1907.

When Theodore Roosevelt was inaugurated President of the United States in 1905, Holmes was a member of the committee in charge of the inaugural ceremony, and eight years later, at the inaugural of Wilson, he was appointed a member of the Committee on Reception by its chairman, Thomas Nelson Page. He was elected president of the Cosmos Club, of which he had been a founder, for the year 1907-8, and he was a delegate of the Smithsonian Institution and The George Washington University to the Pan-American Scientific Congress at Santiago, Chile, December 1908 to January 1909. Later he assisted in setting up the exhibits for the Yukon-Pacific Exposition at Seattle and en route stopped at the Grand Canyon to select a suitable site for the memorial to Major J. W. Powell, which he determined should be at Sentinel Point.

An outstanding event during Dr. Holmes's incumbency as Chief of the Bureau of American Ethnology was the appearance of the Handbook of American Indians North of Mexico under the editorship of Mr. F. W. Hodge.

In 1909 Holmes resigned his position in the Bureau to devote his entire attention to the collections of the National Museum which interested him more personally, and on January 1, 1910, he resumed his status as Head Curator of Anthropology in that institution. He regarded the installation and classification of the Museum's archeological material as his most important work during the period that followed, and the groups illustrating aboriginal Indian life which he then designed certainly deserve special recognition, but of even more permanent value probably was the completion and publication of Part I of a Handbook of Aboriginal American Antiquities, treating of the lithic industries, a work which he had begun while Chief of the Bureau of American Ethnology. It must be considered a major misfortune that Part II of this work was never finished.

In March and April, 1916, Holmes visited the great ruined cities of Guatemala and Honduras in company with Dr. Sylvanus G. Morley of the Carnegie Institution, an expedition destined to be his last, and the same year he assisted in classifying the collections in the Detroit Museum. His seventieth birthday, also occurring in 1916, was made the occasion for a dinner in his honor given by his friends and associates at which he was presented with a volume of anthropological papers brought together and edited by Mr. F. W. Hodge, his successor as head of the Bureau of American Ethnology. On July 5, 1918, the degree of Doctor of Science was conferred upon him by The George Washington University in recognition of his distinguished abilities and attainments.

Dr. Holmes was a fellow the American Association for the Advancement of Science, a member and founder of the American Anthropological Association, a member of the Anthropological Society of Washington, the Philosophical Society of Washington, the American Folk-Lore Society, and the Archaeological Institute of America, and Chairman of the Managing Committee of the School of American Archaeology.

## III

Still another change of interest and activity in the life of Dr. Holmes had been prefigured as far back as August 10, 1906, when he was appointed temporary Curator of the National Gallery of Art. This appointment was made permanent January 1, 1910. From a valuation of a few thousand dollars which the art collections possessed in 1906, they had grown in size and importance by 1920 to an estimated value of ten million, and a crucial step in the history of the Smithsonian Institution was taken that year by separating the National Gallery of Art from the National Museum and making the former a distinct unit, with Dr. Holmes as its first Director.

The important part played by art throughout Holmes's earlier career has already been dwelt upon and is particularly evidenced in the panoramic views prepared by him for the Atlas of Colorado and in his volume on Mexican ruins. Mention should also be made of some delightful humorous sketches dating from the period of his explorations in the west. The same artistic taste is evident in his paper on "Aboriginal Pottery of the Eastern United States" and in other of his Bureau publications. He supplied the well-known vignette appearing on the title-pages of all publications of the Bureau of American Ethnology. His work in the art colony at Munich has been touched upon.

After his return from Chicago and while continuing to occupy his house on Belmont St., Washington, D. C., Holmes spent his summers, when not in the field, largely at his summer home, which he refers to as "my charming little place, Holmescroft," near Rockville, Md., where he continued to exercise his irrepresible artistic tastes. In 1909 he was elected president of the newly organized National Society of Fine Arts, and he represented the National Gallery of Art at the Annual Convention of the American Federation of Arts, May 15-16, 1913, of which organization he was also a member. From 1914 until 1928 he was President of the Water Color Club of Washington and he was also President of the Society of Washington Artists.

In 1926, in Dr. Holmes's eightieth year, an infection starting in the toes of his left foot made a surgical operation necessary and the surgeon discovered it had extended so far that it was

necessary to keep Holmes under the anesthetic longer than had been intended and to remove his leg above the knee. His endurance of this ordeal and rapid recovery testified to his excellent physical condition and superb vitality, while his uniform cheerfulness both in anticipation of it and during his convalescence were equally remarkable. He was soon busily at work again and continued actively engaged at his desk for six years more. On the occasion of his eightieth birthday which occurred a few months after his operation he was presented with a letter signed by his friends and associates in the Smithsonian Institution. June 30, 1932, he finally resigned his position as Director of the National Gallery of Art, and removed to Royal Oak, Mich., to live with his son, and there on his next birthday he was again remembered in a letter of congratulation signed with the names of the various members of the staff of the Smithsonian Institution and former associates of the National Museum and the Bureau of American Ethnology. His death occurred on April 20, 1933.

IV

The following honors and positions of honor were bestowed upon Dr. Holmes in addition to those already noted :

- 1876. Corresponding Member of the Academy of Natural Sciences of Philadelphia.
- 1891. Secretary of Section H, American Association for the Advancement of Science.
- 1892. Vice-President of Section H, American Association for the Advancement of Science; and again in 1909.
- 1897. Honorary Fellow of the Anthropological Institute of Great Britain and Ireland.
- 1899. Member of the American Philosophical Society of Philadelphia.
- 1899. Corresponding Member of the American Institute of Architects.
- 1900. Corresponding Member New York Academy of Sciences.
- 1900-02. President Anthropological Society of Washington.
- 1903. Appointed Commissioner of the United States on the International Commission of Archaeology and Ethnology.
- 1903. Corresponding Member Die Berliner Gesellschaft für Anthropologie, Ethnologie and Urgeschichte.
- 1903. Corresponding Member Svenska Sällskapet för Anthropologi och Geografi.
- 1904. Honorary Member Davenport Academy of Sciences.
- 1904. Vice-President Fourteenth International Congress of Americanists.

- 1905. (April 20.) Elected a Member of the National Academy of Sciences.
- 1905. Elected a Member of the American Antiquarian Society.
- 1907. Honorary Member Universidad de La Plata.
- 1909. President American Anthropological Association.
- 1909. Delegate of the National Academy of Sciences to the Fiftieth Anniversary of the American Institute of Architects.
- 1915. Chairman of the Organizing Committee of the Nineteenth International Congress of Americanists and the Pan-American Congress, Acting President of the Congress of Americanists, delegate of the United States to the Pan-American Congress and Chairman of the Section of Anthropology of the same.
- 1916. Corresponding Member Academia Nacional de Historia of the Republic of Colombia.
- 1916. Appointed by President Wilson a member of the National Research Council.
- 1917-18. President of the Washington Academy of Sciences.
- 1919. Life Member of the National Geographic Society.
- 1926. Honorary Member of the American Institute of Architects.
- 1926. Honorary Member of the French Alpine Club.
- 1928. Honorary President of the Washington Water Color Club, (until his death).
- 1930. Honorary Member of the Washington Academy of Sciences.
- 1933. Honorary Member of the Anthropological Society of Washington.

Oil paintings of Dr. Holmes by William Spencer Bagdatopoulos and E. Hodgson Smart, and a portrait bust by Moses Wainer Dykaar are in the possession of the National Gallery of Art.

## V

The esteem in which Dr. Holmes was held in the world of art is attested by the positions to which he was elected and the attention his paintings received whenever he exhibited. During the latter part of his life he was universally looked up to as the dean among Washington artists. Miss Leila Mechlin, the well-known art critic, speaks of him as "a brilliant technician," and refers to the water color sketches which he brought back from South America in 1909 as "an amazing collection . . . crisply painted, and with an assurance and swiftness of touch which has seldom been excelled."

Turning to appreciation on the part of scientists, we find Sir Archibald Geikie declaring that his pictures of the scenery of the far west of the United States "are by far the most remark-

able examples yet attained of the union of artistic effectiveness with almost diagrammatic geological distinctness and accuracy." Jones and Field, in their paper on the Grand Canyon of the Yellowstone prepared in 1929, say: "The report of 1878 is replete with careful observations and beautifully accurate drawings by this master artist of geological subjects and the scientific interpretation of scenery."

As has been noted above, Holmes, during his explorations in the Colorado Valley in 1873, observed and correctly interpreted the structure and origin of a peak in the West Elk Range known as Ragged Mountain. In 1877 Gilbert noted the same thing independently in the Henry Mountains and discovered that it was a characteristic of many other peaks of the region. Gilbert made detailed studies of these and gave to this type of mountain building the name "laccolitic" by which it is now well known. Gilbert fully recognized the contribution made by Holmes to this hypothesis, named a peak after him, and in commenting on his brilliant junior associate, says: "All of Mr. Holmes's work is distinguished by care in observation and caution in deduction."

Though Dr. Holmes had singularly few contacts with the living Indians in spite of his seven years' service as Chief of the Bureau of American Ethnology, he was profoundly interested in their technical productions, especially their ceramics, and objects made by them of shell and stone. His studies of textiles were based almost entirely on museum specimens, and it is to be noted that his greatest work along these lines was in the aboriginal lithic industry and the potter's art of the eastern United States, the one dead and the other rapidly dying. This part of his work, therefore, lacked the control which might have been supplied by direct observations of native artisans, but in spite of that limitation it was of outstanding character. The published section of his Handbook of American Antiquities is the standard treatise on primitive American lithic industries, and all later archeologists have used his map of the distribution of pottery types as a basis.

These treatises will probably remain of more permanent, as they certainly are of more obvious, value than others upon which he himself laid most emphasis. Thus he regarded his opposition to, and virtual explosion of, the early theory of a paleolithic



period in America as one of his great accomplishments, and it did indeed exert a wholesome, restraining influence over archeologic thought, but men seldom attain permanent fame for their negative accomplishments, and Holmes's contribution here did little more than shorten the pathway of his contemporaries and save them some useless and wasteful meanderings.

Another remark of his probably introduces us more intimately into the nature of his greatest contribution to anthropology in America. In 1916 he said: "The classification and installation of these [Museum] collections, although still far from complete, is probably the most important single achievement of my archeological career." This statement applied, of course, to one museum, but it emphasizes his classificatory tendency which, when as highly developed as in his own case, involves a sense of proportion, of coordination and subordination, which are the equipment of the great scientific or artistic organizer. In this faculty of artistic arrangement lay his preeminence as a museum man. The same quality was exhibited in the arrangement and indexing of his own notes and manuscripts and in the synthesis of documents, photographs, and sketches bearing upon his career into sixteen bound volumes, neatly assembled and carefully systematized, indexed, and annotated which make the task of any biographer a joy. His critical work was probably incidental to this enthusiasm for classification guided by a wonderful sense of balance. Intelligent criticism is itself constructive in that it limits the field along which constructive work must proceed, and classification is the necessary preliminary to any investigation of causes. Thus Holmes not only made contributions to science in geology and anthropology, but he prepared the way for discoveries by others. He was distinguished as a geologist, as an archeologist, as a student of the lithic and ceramic industries of our American Indians, and as an artist, and he was a superlatively great illustrator of scientific subjects. Moreover, he was a very human and very lovable companion and friend to those who had the pleasure of an intimate acquaintance with him.

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