FRANK HAMILTON CUSHING:
PIONEER AMERICANIST

by

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I hereby recommend that this dissertation prepared under my direction by Raymond Stewart Brandes entitled "Frank Hamilton Cushing: Pioneer Americanist" be accepted as fulfilling the dissertation requirement of the degree of Doctor of Philosophy.

Dissertation Director Date

After inspection of the dissertation, the following members of the Final Examination Committee concur in its approval and recommend its acceptance:

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Signed: Raymond Stewart Byrnes
PREFACE

As the last quarter of the nineteenth century began, the infant science of American anthropology stood on wobbly legs. Behind it had passed several decades of growing wonderment and romanticized conjecture regarding the prehistoric peoples of the continent. By 1850 the discoveries of scattered artifacts in plowed fields and the excavation of mounds in the Ohio Valley and elsewhere had created a lively interest in American antiquities, but as late as 1875 the existing literature had done little more than to spread a colorful cloak of mystery over all major questions. This literature was collectively the work of intelligent men—Army engineers, geologists, naturalists, physicians, and observant travelers—but most of them had reached their conclusions on their knowledge of the ancient classics and what one early archaeologist, S. F. Haven, chose to call "profane history." In their attempts to explain the origin of civilization in North America, writers had filled their pages with vague allusions to the Egyptian priesthood, Plato, the Romans, the Tartars, the Hindoos, and the sunken island of Atlantis.

The next twenty-five years witnessed the application of the scientific method to techniques of archaeological and ethnological investigation in the United States. Many men contributed to this development in various ways, but throughout the period Frank Hamilton Cushing
played a persistent, an integral, and a most important part. When at
the age of eighteen he joined the staff of the Smithsonian Institution as a
curator of ethnology in 1875, Cushing found American anthropology
struggling to survive. At the time of his death in 1900 at the age of
forty-three, it was a recognized science on the threshold of a great
future in the new century. It would be quite too much to say that Cushing
was the "father" of American anthropology; like most disciplines, this
one had many progenitors. Yet it is altogether proper to call Cushing a
"Pioneer Americanist," for in his tragically brief career of twenty-five
years he blazed more trails in American ethnology and archaeology than
any other man.

At the peak of his career Cushing was assured by his friends
that he was the foremost ethnologist in the world. Yet until now that
remarkable career has not been chronicled. As a person of eccentric
genius he has received his share of comment, favorable and otherwise,
in fragmented form in newspapers, magazines, learned journals, and
books about other people; but the full course of his interesting life has
not heretofore been studied. The result is that Cushing has remained
an enigma, himself as mythical and mysterious as the field of scientific
adventure which he entered in 1875. The absence of a biography of
Cushing is easily explained: his voluminous papers are scattered from
New England to the Pacific Coast. It has been the fascinating, yet
arduous, task of this student to track down these documents and to
search them, together with a mass of pertinent published material, for facts on which to reconstruct Cushing's life.

In his pursuit of data on Frank Hamilton Cushing, this writer has amassed multiple debts. Among the individuals to whom his special gratitude is due are Dr. Frank H. H. Roberts, Jr., Dr. Henry B. Collins, John L. De Burse, Jr., and Mrs. Baker of the Smithsonian Institution; Carl S. Dentzel and Ella L. Robinson of the Southwest Museum; Frances Eyman of the Museum of the University of Pennsylvania; Gertrude D. Hess of the Library of the American Philosophical Society; Dr. James C. Gifford of the Peabody Museum at Harvard University; John Alden of the Boston Public Library; Malcolm Freiberg of the Massachusetts Historical Society; Dorothy M. Potter of the Essex Institute; Gilbert A. Cam of the New York Public Library; James J. Heslin of the New York Historical Society; Catherine D. Hayes of the Rush Rhees Library of the University of Rochester; Esther Klugiewicz of the Erie Public Library; Dr. John M. Roberts of Cornell University; William B. Walker of the Brooklyn Museum; Michael Mathes of the Library of the University of New Mexico; Albert E. Schroeder of the Southwest Regional Office of the National Park Service; Frank Wilson of El Morro National Monument; Dr. Robert C. Euler, now of the University of Utah; and Dr. Richard B. Woodbury, now of the U. S. National Museum.
Through the years of learning which precede the writing of a doctoral dissertation, the graduate student accumulates the information and develops the skills which finally make it possible for him to undertake the task of original research and interpretation. For his acquisitions in the major discipline of history this student is profoundly indebted to a premier scholar of the Spanish borderlands, Dr. Russell C. Ewing, head of the Department of History at the University of Arizona. To Professor Ewing's staff and particularly to his colleagues in United States and English history, Professors Herman E. Bateman, James A. Beatson, J. A. Carroll, and Donald N. Lammers, he owes more than could be described in an acknowledgment ten times this size.

For his training in the minor, anthropology, this student owes much to Dr. William W. Wasley, archaeologist of the Arizona State Museum, and to Dr. Raymond H. Thompson, director of that museum and head of the Department of Anthropology at the University of Arizona. To Professor Thompson's predecessor in both posts, Dr. Emil W. Haury, he is indebted not only for professional guidance and formal training over a period of several years but also for many stimulating discussions on the subject of this biography. Professor Haury's notable work in the Southwest, and particularly at the site of Cushing's original excavations in the Salt River Valley, has given him insights into both the methodology and personality of the pioneer scientist which no other present-day archaeologist can equal.
It has been my rare privilege to have worked for six years, both as an undergraduate and graduate student and as a collaborator in diverse projects in the cause of state and regional history, under the keen eye and inspired guidance of the director of this dissertation, Dr. John Alexander Carroll. In his lectures and seminars I came to appreciate the full value of teaching in its highest form, and from his company I derived new dimensions of the meaning of friendship. If there are finer teachers or better friends in the world than Professor Carroll, I do not expect to know them.
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ABSTRACT

Frank Hamilton Cushing, born in Erie County, Pennsylvania, on July 22, 1857, was taken as a child to the woodlands of western New York. Here he grew through boyhood learning to love the outdoors and becoming an avid collector of minerals, fossils, and arrowheads. By trial-and-error he trained himself in the art of stone-chipping and basket-weaving, and soon had developed an abiding interest in archaeology and ethnology. In the course of his wanderings in western New York he met a number of scientists who encouraged him to pursue his avocation. In 1874 he submitted to the officials of the Smithsonian Institution a paper he had written on the antiquities of Orleans county, New York, which so deeply impressed them that it was published the next year. He enrolled at Cornell University, but when offered a position at the Smithsonian in 1875 he moved to Washington and began his life's work at the age of eighteen.

In 1876 Cushing had charge of the Smithsonian exhibit of anthropological materials at the Centennial Exposition in Philadelphia. For the next two years he worked as a curator in the Bureau of American Ethnology at the Smithsonian, arranging collections and doing some archaeological surveying and excavating in nearby Virginia. In 1879, while serving on an expedition to New Mexico, he became intensely
interested in the Zuñi Indians, and at his own request was assigned to live among them for purposes of ethnological study. At the Zuñi pueblo for the next five years he bent all his energies toward mastering their way of life, and he succeeded to the point where he was given the tribal name Tenatsali (Medicine Flower) and invited to join the bow priesthood. From Zuñi he made excursions to the Hopi mesas and to the Grand Canyon in search of ethnological data. Dressed in Indian garb, he lead a party of Zuñi headmen on a grand tour of the East in 1882, attracting much attention in Washington and in Boston. In 1884, after a quarrel with a powerful Senator but evidently not as a result of it, he was recalled to Washington.

Cushing's health, which had never been good, now failed badly, and he was compelled to take long leaves of absence from his duties at the Smithsonian. While spending the summer of 1886 as a guest of Mrs. Mary Hemenway, a wealthy Boston philanthropist, he induced his host to provide funds for a large archaeological expedition to the Salt River Valley of Arizona. Under his personal direction the Hemenway expedition, the most elaborate undertaking of its kind until that time, entered the field early in 1887. His plan was to unite in one operation the disciplines of archaeology, ethnoogy, physical anthropology, and history in an attempt to relate the "buried cities" of central Arizona with the pueblo culture of New Mexico. Much work was done, but Cushing fell ill late in 1887 and again in 1888. Relieved of his position
as director before the work was completed, he returned to Washington to recuperate.

Not until 1891 was Cushing able to resume his regular duties at the Smithsonian. That summer he examined some ruins on the shores of the Great Lakes, then spent the better part of the next three years in a flurry of writing and publishing. It was in this period that he made his reputation as an able synthesist and earned the high regard of his superiors at the Smithsonian. In 1895 and 1896 he returned to field work on the Gulf coast of Florida under the joint sponsorship of the Smithsonian and the University of Pennsylvania. Here, off Key Marco, he opened another rich field for anthropological study. He was still working on his Florida collections and writing a voluminous report when, on April 10, 1900, he choked on a fishbone, suffered convulsions, and died in Washington, D.C., at the age of forty-three. Eulogists described him as a scientific promoter of the rarest kind, a man of immense intellect, a learner and a teacher, the "courier of the Washington school of anthropology."
CHAPTER I

LEARNING THE TRADE

The Wind

The soft sweet gentle wind of night
A bird among the trees it seems
Filling with nature’s songs our dreams
Yet hidden by the leaves from sight

F. H. C.*

On July 22, 1857 near the shores of Lake Erie at Northeast Township in Erie County, Pennsylvania, a son was born to Thomas Cushing, M.D., and Sarah Crittendon Cushing. The premature,


The Autobiography of F. H. Cushing shows that he was descended in the seventh generation from John Cushing, of Belle House, Scituate, Massachusetts. John Cushing was the youngest son of Matthew Cushing, descendant of the Cossyns de Limesi of Normandy, who came from Bingham, Norfolk County, England to Massachusetts in 1636. He was a common ancestor not only of the subject of this study but also of Chief Justice William Cushing (second cousin to Mr. Cushing’s great-great-grandfather Thomas); of Lieut. Governor of Massachusetts Thomas Cushing, merchant and politician (third cousin of Mr. Cushing’s grandfather Enos); of Judge Luther Stearns Cushing (third cousin of Mr. Cushing’s father); Caleb Cushing (fourth cousin to Mr. Cushing’s father); three brothers—William Barker Cushing, the Union naval officer who destroyed the Confederate ironclad Albermarle; Alonzo Hersford Cushing, hero of Pickett’s charge at Gettysburg where he lost his life; and Ioward Bass Cushing, killed while with the 4th U.S. Cavalry at the battle of Whetstone Mountains, Arizona—were all fourth cousins of Frank Hamilton Cushing.
FRANK HAMILTON CUSHING IN ZUNI COSTUME

Photograph by J. K. Hillers, 1880-81 [?].
Courtesy of Bureau of American Ethnology,
Smithsonian Institution, Washington, D. C.
almost lifeless boy who weighed but one and one-half pounds was deliv­
ered by his father and kept alive by some miraculous means. He was
christened Frank Hamilton. "None standing over you," his father told
him years later, "wondered about your future--we were too busy with
the present."\(^2\) Certainly none saw in this tiny infant the genesis of a
man who would one day become a foremost figure in scientific circles
and the dynamic leader of the Washington school of anthropology.\(^3\)

Thomas Cushing had studied at the medical colleges in Buffalo
and Albany as a protegé of Dr. Austin Flint and Dr. Frank H. Hamilton,
for whom the new son was named. Thomas moved to Chautauqua County,
New York, in 1848, and in that year married Sarah Harding Crittendon.
In 1856 the family moved to Erie County, Pennsylvania, and in 1860,
when Frank was three years old, to Barre Center, Orleans County,
New York. When the Civil War broke out, Thomas was commissioned
as an assistant surgeon in the 28th New York Volunteers and served in
Virginia and Maryland. He was later appointed a surgeon in the 29th
U. S. Infantry and saw duty in Louisiana, Texas, Mississippi, and
Alabama. He cared for wounded at Second Bull Run, South Mountain,
and Antietam. At the end of the war he returned to his family near

\(^2\) MS Autobiography of Frank Hamilton Cushing, n. d., in Southwest
Museum, Los Angeles, California.

\(^3\) "In Memoriam," American Anthropologist, n. s., vol. 2, no. 2 (April-
June, 1900), pp. 354-379.
Barre Center. 4 The elder Cushing was noted for his eccentricities, liberality of thought, loyalty to his convictions, and fearlessness in expression of opinions. These traits all manifested themselves again in his son Frank.

So tiny was Frank that he lived the first two years of his life on a pillow. As a child he was so small and weak that he could not join his brothers and sisters in more strenuous games, and he frequently played alone. But, despite the delicacy of his health, his father permitted him to wander about by himself. He became used to lonesomeness and hiked for hours through the woods on the "homestead" in Orleans County. In later life Cushing indicated that he was not instructed in any kind of religious belief whatever. 5 He attended the district school only infrequently, but devoted a great deal of time to the study of nature in its every form. All aspects of nature seemed to interest him—whether it be rocks and minerals, flora and fauna, or natural phenomena in general. One day a hired man, plowing a furrow across a field on Dr. Cushing's farm, picked up a blue flint arrowhead

4 Isaac S. Signor (ed.), Landmarks of Orleans County, New York (Syracuse: D. Mason and Co., 1894), p. 141. There seems to be little doubt that Frank had two other brothers, one a doctor, and the other a farmer at Barre Center. There is some doubt as to whether there was more than one sister. Signor says but one, while Cushing in his MS Childhood Reminiscences, n. d. (Southwest Museum) refers to his "little sisters".

and tossed it aside where Frank could retrieve it. "The Indians made that," the man said, and the eight year-old lad took the point eagerly in his hands. It was small, bright, and perfectly shaped. Late in his career Cushing told an audience that the arrowhead he had seen that morning had decided the purpose and calling of his whole life. 6

Frank soon had a chance to visit an uncle in Michigan where he could observe the Indians at first hand. He had no books relating to archaeology but Layard's Ninneveh and its Remains, and so continued to learn as best he could by practical experience. 7 Until he was thirteen years old he continued to roam the backwoods country of Orleans County. The district schoolmaster frowned at his irregular attendance, and his father looked with a jaundiced eye on Frank's amateur archaeological jaunts, but his vivid imagination took him beyond the reach of such discipline. He built a wigwam of bark in the woods and there kept his collection of arrowheads, fossils, minerals, and a complete Indian costume. Here he stayed whenever he could. 8


7 Autobiography of F. H. Cushing, p. 3.

In his quest for new relics he began to realize that wherever Indians had lived for any period of time the soil and vegetation had changed—and in such areas he searched with a special diligence. In his room at home he kept an old blue chest which was overfilled with his finds. His father, yet not convinced of the value of this preoccupation, often tried to discourage him, and on one occasion tossed the cumbersome collection of artifacts out-of-doors. One day Frank located a place where arrowheads had been made—a "workshop" area—and he was newly stimulated. He wanted to learn how arrowheads were fashioned and what purpose the different sizes and shapes might have served. A neighboring farmer showed him some obsidian-tipped points which Frank began to imitate by hammering and chipping bottle and window glass.

In 1870 Doctor Cushing, desirous of resuming a town practice and of placing Frank in an academy, moved the family to Medina, New York. Here, however, Frank's regular studies progressed little more, and as it turned out he now had even better opportunities to pursue field work in his passion to learn more about the ancient peoples. In the summer of that year he visited relatives near Casenovia, New York and found some ancient fortifications, burial grounds, and campsites

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in Madison and Onondaga counties. His collections trebled. While in Casenovia he met L. W. Ledyard, who took an interest in his activities and later made mention of him to the officials of the Smithsonian Institution. When young Frank returned to Medina, he continued his explorations and discovered another Indian fort. Nearby he built a hut and went there for days at a time to dig for relics. At night by the light of his camp fire he studied how the curious objects were made and used.\(^{11}\)

One evening he took an old toothbrush, chopped the handle off, and ground it down on a sandstone so as to shape a harpoon blade. He worked the bone until he found the right technique that would produce a finished replica. He failed to make a perfect harpoon, but discovered instead how to use the bone as an arrow-flaker. Frank made one arrowhead after another until his hands were blistered and lacerated. Twenty-five years later he still had the scars of that memorable experience, and by now he had demonstrated seven or eight distinct methods of working flint-like substances into arrowheads. "All save two, " Cushing reported, were "... processes now known to have been some time in vogue with one people or another of the ancient world."\(^ {12}\)

In time Cushing also learned to make textiles and baskets and to fashion replicas of Indian artifacts of every kind.

\(^{11}\) Autobiography of F. H. Cushing, pp. 3-4.

By no means was Frank a hermit. He sought out and became friends with men much older than himself—men who were known for their erudition, men from whom he could learn. In Medina he met George Kennan, the noted Siberian traveler, and soon received such encouragement that he came to worship Kennan as his mentor. He also became aware of the work of Lewis Henry Morgan and found inspiration in correspondence with the pioneer ethnologist and author of *The League of the Iroquois*. In 1874, when he was seventeen, he sent a paper to the officers of the Smithsonian Institution. The paper dealt with the antiquities of Orleans County, New York. So impressed were Joseph

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Henry, secretary of the Smithsonian, and Spencer F. Baird, the assistant secretary, that they provided means for its publication in the Annual Report for that year. Uniquely enough the paper was built around his "wigwam" collection, which Cushing later gave to the United States National Museum.

Joseph Henry, born in 1797, is best known as the first secretary and director of the Smithsonian Institution. He had been diverted from medical studies to survey and exploration, and in 1832, while at the College of New Jersey he took up research in the new field of the relation of electric currents to magnetism. He left that college in 1846 for the Smithsonian, where he developed the idea that "increase of knowledge" was to be furthered not by furnishing lectures or providing libraries at Washington but by stimulating and supporting original research. He died in 1878 of nephritis. For a contemporary appraisal of Henry see a Memorial of Joseph Henry published by order of Congress in 1880 included in Smithsonian Miscellaneous Collections, vol. 21, 1881. John N. Finley's two volumes, The Scientific Writings of Joseph Henry (Smithsonian Institution; 1886), is also most useful.

Spencer Fullerton Baird, born at Reading, Pennsylvania in 1823, taught at Dickinson College and went to the Smithsonian as assistant to Joseph Henry. On the death of Henry in 1878 Professor Baird became Secretary. In 1871 he organized the U. S. Commission of Fish and Fisheries which President Grant had asked him to head. Perhaps he is best remembered for his action in asking the government to help in building collections of all kinds by giving instructions to the Army officers and surgeons and to the naturalists who accompanied geological surveys to gather and collect objects. See the DAB, vol. 1, pp. 513-555 for the sketch by David Starr and Jessie Knight Jordan. Several other works chronicle Baird's life, notably that by William Healey Dall, Spencer Fullerton Baird: A Biography (Philadelphia: J. B. Lippincott, 1915), 462 pp. See also memorial addresses by representatives of scientific societies of Washington in: Smithsonian Institution Report for 1888, pp. 703-744; and the "Proceedings of Commemoration of Life and Scientific Work" of Baird in Smithsonian Miscellaneous Collections, Jan. 11, 1888, vol. 33, pt. 5, pp. 41-77.

Cushing wrote often from Medina to the Smithsonian. On July 15, 1874 he sent diagrams and descriptions of an ancient earthwork near his home, along with descriptions of many relics found. His attitude was humble. "I am young and inexperienced," he wrote, "and this is my excuse for all errors or wrong conclusions." Early in 1875 he received by express mail a package of publications dealing with archaeology and geology, sent by Professor Baird. He gratefully acknowledged the gift, adding that "any future favors of this kind will be most gratefully received." Through George Kennan, Cushing met Charles Fred Hartt, a geologist at Cornell University. A flurry of correspondence ensued which resulted in a visit by Cushing to Ithaca.

On the first day of his visit to the Cornell Campus he discovered the remains of a rich Indian camp site on the very grounds. That evening he appeared in the laboratory of Professor Hartt laden down with

18 Letter to Professors Henry and Baird, July 15, 1874 on file at the Smithsonian Institution.

19 Letter to Baird, Feb. 2, 1875 on file at the Smithsonian Institution.

20 Charles Frederick Hartt was born in 1840 and died thirty-eight years later in Rio de Janeiro. A graduate of Arcadia College in 1860, he had already conducted extensive geological explorations in Nova Scotia. He was chosen to conduct other geological expeditions to New Brunswick in 1864 and to Rio in 1865. Many of his explorations were in the Valley of the Amazon. In 1875 he was appointed chief of geological surveys in Brazil and stayed there until his death. See Appleton's Cyclopaedia of American Biography, vol. 3 (New York: D. Appleton and Co., 1887), p. 106.
Indian remains. Hartt, in an enthusiastic response, offered Cushing the opportunity to enroll as a special student of the natural sciences and to provide the funds for his tuition. Simultaneously in the spring of 1875 the eighteen year-old prodigy was encouraged by his father to attend Cornell University. Although his college days were short-numbered, he took advantage of his time to live in the library and to read the works of some pioneer students of primitive peoples.

A further introduction to the Smithsonian Institution came as Baird encouraged Cushing constantly to work hard at his chosen task. Cushing did continue to study local archaeological sites of New York, and September 15, 1875 he wrote Baird to thank him for information on remains in Chautauqua County. Frank beamed when he learned of the possibility that the Smithsonian might bear the expense of some of his explorations. Cushing told Baird that Mr. Ledyard had suggested the possibility of work at the Smithsonian in the winter, putting some collections in order. He would be pleased at any time, he said, to accept any position in the Institution which he could properly fill.

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22 Ibid.
23 Letter to Baird Sept. 15, 1875 on file at the Smithsonian Institution.
Baird, in affirmation of his interest, wrote to Cushing on November 26, asking him to report for work at the Smithsonian. Cushing answered promptly on the 30th, saying he would leave at once and bring with him not only the specimens collected for the Institution during the season but also "a number of choicest articles in my collection." His position would be as the assistant to Dr. Charles Rau, a Belgian scholar who had recently joined the staff as resident collaborator in ethnology. On his arrival in Washington, Cushing was told to arrange certain Indian collections of the United States National Museum, a department of the Smithsonian, and to prepare them for exhibition at the Centennial Exposition to be held at Philadelphia the next year. Between May 10 and November 10, 1876 Cushing worked with the Indian

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24 Letter to Baird, Nov. 26, 1875 on file at the Smithsonian Institution.
25 Letter to Baird, Nov. 30, 1875 on file at the Smithsonian Institution.
26 Charles Rau (1826-1887), archaeologist and museum curator, was born at Verviers, Belgium. In 1875 he was appointed resident collaborator in ethnology in the U. S. National Museum, and by 1882 had become the recipient of many honors for his work. In 1881 he was made Curator of the Department of Archaeology and held this position until his death. It is said that his analytical and orderly mind grasped readily and completely the subject of classification. He was the first in America to recognize the importance of the study of aboriginal technology. See the sketch by Walter Hough in the DAB, vol. 8, pp. 388-389.
exhibits at the Exposition. As he handled the artifacts of the National Museum collection in the months at Philadelphia, his interest gradually turned from the gathering of relics to their study and interpretation.

At Philadelphia Cushing had the opportunity to discuss his interpretations with visiting archaeologists. He showed them his replicas of native handicrafts, and showed his skill in many ways from stone-chipping to pottery-making, basket-weaving, skin-dressing, and other Indian arts and crafts. As curator of the Indian exhibit at the Exposition he gained some knowledge of the Pueblo Indian groups of the Southwest. He had only recently come across a watercolor, hanging in a dark corner of the National Museum, which depicted a masked Indian dancer at a pueblo. At the close of the Exposition he was not yet twenty, but Frank Hamilton Cushing was now appointed Curator of the Department of Ethnology of the National Museum. During the summer of 1876 he had begun to study the Pueblo Indians in earnest, and now the southwestern cultures assumed more and more importance in his thinking. His investigations stimulated him much, and he became

deeply interested as well in the ruins and cliff dwellings which had very recently been discovered. A desire to visit the Southwest grew strong, but for more than two years he would have to bide his time.

On November 1, 1877 Cushing wrote to Lewis Henry Morgan about the projected Woodruff Scientific Expedition around the world. Cushing wondered if it might not be possible for him to be appointed as "practical ethnologist" of the expedition. Asking pardon for the boldness of a beginner, he hoped for a letter of recommendation or a word from Morgan in his behalf. The plan for the expedition fell through for the time, and therefore Cushing had no need for immediate endorsement. In the meantime, in the period June 21 to August 7, 1878, Morgan himself made a trip to the Southwest, though not in good health, to inspect the pueblo ruins of Colorado and New

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29 Letter to Morgan, Nov. 1, 1877 on file at the Rush Rhees Library, University of Rochester.
Mexico. 30 Cushing got a good taste of field work, however, when assigned to the exploration of caves in Pennsylvania and the excavation of various soapstone quarries in Maryland and the District of Columbia. 31

Early in 1878 Cushing was dispatched to examine some ancient Indian quarries in Chula Amelia County, Virginia. This proved to be his first important assignment, one in which he would have an opportunity to develop administrative procedures for such work. On May 9 he left Washington on the 6:10 P. M. train, arriving at Richmond at eleven o'clock. The next day, armed with letters of credential, he visited individuals in the region to learn from them what they knew of the Indian sites. The principal area he intended to examine was some forty-five minutes by train from Richmond to Chula at the "Old Dominion Steatite Quarries," owned by a Mr. Wiggins. Rains for more than a week delayed his work and resulted in additional


costs to the Smithsonian. After making a preliminary survey and doing some exploratory work, he returned to Washington on June 1.

Although in the city on July 11, he wrote Baird across town on several occasions. Fearful that the Secretary would be alarmed by an article in Harper's regarding the work in Virginia, Cushing wished to indicate that apparently Wiggins had called in the reporters. The stay of about a month in Washington only served to whet his desire to return to Virginia, which he did on July 16.

Before he left, he scribbled a line to Baird: "The Woodruff Expedition again lives." Cushing had been formally offered the chance to sail around the world, but he did not wish to go without the express sanction of Baird. Cushing put it in these words: "Under protest, therefore, I write, awaiting with calm indifference the dictates of your judgement. . . ." Baird responded the following day, noting that the history of the Woodruff organization was not at all satisfactory.


33 Letter to Baird, July 11, 1878 on file at the Smithsonian Institution.

34 Letter to Baird, July 12, 1878 on file at the Smithsonian Institution.

35 Letter to Baird, July 11, 1878 on file at the Smithsonian Institution.

36 Ibid.
The Secretary expressed doubts as to whether anything would come of it. "Mr. Woodruff," he said, "would expect you to do a great deal of work for very little pay, and apart from having seen a considerable portion of the globe, you would probably come back worse off than when you started..." Baird could not recommend under any circumstance that Cushing take the job. Several days later Baird reiterated his opinion with the remark that he would be "agreeably disappointed" if the expedition sailed with the blessing of any scientific sponsor.

Cushing readily accepted the advice of his superior.

Cushing, back in Virginia at the Wiggins quarries, experienced for the first time a difficulty in getting clearance for his vouchers for pay and expenses. Then, and invariably in later years in the field, he would charge more than he had been authorized to spend. It soon was to become obvious that by his nature he rebelled against the paper work--against the rules that had been set down for federal employees. He was well aware that salaries were generally set by a standard pay scale. His pay of sixty dollars per month, added to a twenty dollar "digging fund," never stretched far enough. He wrote Baird: "For the sake therefore of humanity, whose name I never knew you to desecrate, I implore you to authorise [sic]... to.

37 Letter to Cushing July 12, 1878 on file at the Smithsonian Institution.
38 Letter to Cushing July 15, 1878 on file at the Smithsonian Institution.
send at least the sum of the items below..." In his letters Cushing complained of his insufferable living in Virginia. His bill of fare consisted mostly of boiled potatoes and bread, "sufficiently mashed down with tea." Other foods, like Virginia bacon, he could not keep on his stomach. Baird sympathized with him, ordered payment of the bills—as he would do so often in the future—and looked forward optimistically to Cushing's report, hoping that it would open up an interesting chapter in American archaeology.

Early in August of 1878 Cushing was besieged for information by correspondents representing Harper's Weekly and the New York Tribune. In this age of romantic emphasis, the temptation was strong to let the world know about such discoveries as soon as possible and with as much color as could be conjured. Under such circumstances of undue haste, the scientist had little opportunity to come to any real conclusions about his finds before stories were released. Cushing questioned Baird as to which periodical should have the story. The Secretary left the choice to the discretion of Cushing, suggesting that perhaps such remuneration would help pay field expenses.

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40 Ibid.
41 Letter to Cushing July 29, 1878 on file at the Smithsonian Institution.
42 Letter to Baird Aug. 4, 1878 on file at the Smithsonian Institution.
43 Letter to Cushing, Aug. 8, 1878 on file at the Smithsonian Institution.
Misinterpreting Baird's response as facetious and a remonstrance, Cushing promptly apologized for any misunderstanding—he did not wish to be paid for the stories, he said, and in fact he would have been happy just to get the stories into the papers. With all the details of his work, Cushing had apparently failed to keep in close touch with his family. In August Baird received a letter from Cushing's brother, Dr. Enos L. Cushing, asking the Secretary if he had heard from Frank as it had been three months since any correspondence had come. Could Baird use his influence to get Frank to write home?

Late in August Cushing finished the Amelia County investigations. He packed his negatives, collections, and baggage during the night of the 26th. During a layover at Richmond on the way back, he had an opportunity to see other private collections of artifacts. Then he went on to Washington, arriving at two in the morning after having been without rest for more than forty hours, and hurried to his office at the U.S. National Museum to arrange for the loan of several museum collections for exhibition. Baird was now at Gloucester,

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44 Letter to Baird Aug. 12, 1878 on file at the Smithsonian Institution.
45 Letter from Enos L. Cushing, Barre Center, N. Y., to Baird Aug. 4, 1878 on file at the Smithsonian Institution.
46 Letter to Baird Aug. 28, 1878 on file at the Smithsonian Institution.
Massachusetts, on U. S. Fish Commission duties. Cushing soon wrote him there about some work he had undertaken on his own. He had discovered specimens in Rock Creek, a section of Washington City, which he claimed to be more illustrative than those in Virginia. During September he continued to gather specimens in Rock Creek. Baird reflected disappointment not that the Institution had spent so much in Virginia, but that money was now lacking for more detailed work at this new site which would be impossible for a year or more.

About this time Cushing encountered an old friend, George Kennan, who had joined the Associated Press in 1878 and had come to Washington. In a newspaper article almost fifty years later Kennan told of Cushing's quarters near the top of the south tower of the Smithsonian building. Here the budding anthropologist had two rooms and two beds. Since Kennan had not found a place to live, he moved in with Cushing for several months. As a newsman he found opportunities to talk with Cushing, with Dr. Bessels, the scientist of the Hall Arctic Expedition, and other interesting men. He and Cushing often took their meals at Harvey's restaurant on Pennsylvania Avenue.

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47 Letters to Baird Sept. 15, 19, 1878 on file at the Smithsonian Institution.

48 Letter to Cushing Sept. 21, 1878 on file at the Smithsonian Institution.

49 Article in Medina, N. Y. Tribune of Dec. 27, 1923, as in Oehser, Sons of Science, p. 71.
Their living quarters were directly underneath the workroom of the noted ornithologist, Robert Ridgway, who kept his hundreds of skins treated with benzine to protect them from insects. The workroom, not maintained in the best condition, was often strewn with packing materials. Kennan described what happened one morning when Cushing wanted to get more heat for cooking, as his stove was too small. The two men went up to Ridgway's room and built a fire in the larger stove. Cushing failed to notice an open can of benzine on the floor, struck a match, and a flame shot up four or five feet high. In a brief moment Cushing realized the flames could set fire to the inflammable materials on the floor. With perfect self-control he lifted the blazing can, carried it across the room, and set it down in a coal-scuttle where it burned itself out. Had Cushing not possessed a perfect presence of mind, another disastrous fire could have been started like one which did damage at the Smithsonian a dozen years before.

On March 4, 1879, at the first regular meeting of the Anthropological Society of Washington, Cushing delivered a paper on "Relic Hunting," which drew on his early experiences in the woods of New

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50 Robert Ridgway (1859-1929), who followed in the footsteps of Baird as a foremost ornithologist, began to correspond with Baird when he was only 14 years old, a young lad from Mount Carmel, Illinois. In 1867, when 17, he was appointed a zoologist in the Smithsonian as a result of Baird's influence.

51 Oehser, Sons of Science, p. 71.
York. He was becoming well-known in the city and this was his first chance to make a public address. He discussed the collecting of archaeological materials in the field, and provided descriptions of the topographic features as indices of ancient Indian village sites. From his work on the lakeshores of New York, and in the valley of the Potomac, he concluded that the Indians had been influenced by topographical conditions in settling. Of primary importance in the selection of sites, he thought, was the presence of water for subsistence purposes and secondly for defensive advantages.  

For some nine months in 1879, Cushing was kept in Washington on the job as Curator of Ethnology. He loaned out artifacts for exhibit elsewhere, accessioned collections, traced down missing items, and answered complaints from various department members.  

Baird, who kept a trim ship, sent a memo to Cushing requiring a conference with him every day "without fail in the West Wing between the hours of 1 1/2 and 2 P. M." The business was routine and often weighed on Cushing's nerves, for he longed to get back into the field once again.

52 John Wesley Powell's abstract of Cushing's paper was published in Smithsonian Miscellaneous Collections vol. 25 (1883), p. 3.

53 Letters to Baird February to June 1879 on file at the Smithsonian Institution.

54 Memorandum to Cushing Feb. 5, 1879 on file at the Smithsonian Institution.
His office duties became almost unbearable in late June when he sent Baird a curt note pointing out that the "paper mache heads to which you call my attention have not been gnawed by mice, but injured at the edges in transporting..." Cushing pointed out that these were the more perfect examples available, and they had been placed on exhibition for that reason. Cushing would have but a short time to wait now for the opportunity which was to take him out of sedentary duties and put him again in the field.

Late in his career Cushing reflected on the many strolls he had taken as a boy through the "broad, well-trimmed orchards on my father's farm way off in Western New York." Here, he felt, his personality had developed. He compared his adventures in later life to such experiences of his childhood as these:

I constructed with infinite labor, and my little sisters' frequent council, a good ship on four wheels with a crank on the front axle and the semblance of a sail made from an old sheet. This good ship I launched into the sea of waving grain and, laboring hard with both mind and muscle, sailed out to certain limestone boulders which were my islands only taken possession of, according to rules laid down in Mitchell's Universal Geography.

By the end of the year 1879 Frank Hamilton Cushing had behind him the first big steps on the road to learning his trade. He had obtained a

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55 Letter to Baird June 24, 1879 on file at the Smithsonian Institution.

permanent position with an internationally recognized institution, and he could pursue avidly his studies in the fields of endeavor he had chosen for his life's work. Insatiable curiosity, keen insight, independence of spirit, and some lack of responsibility marked Cushing at the age of twenty-two as it would in later years. The formative years had deeply affected his outlook on life.
CHAPTER II

LIFE AMONG THE ZUNI

Dreams

Dreams, ye airy prophesies,
Woo and win ye that I might,
Though ye face to nothingness,
With the waning of the night!

Shall I plead ye all in vain,
Visions of a coming day--
Visions of old scenes again,
Save in dreamland gone astray?

Come, ye heralds of the morn,
Come from out the shadow-land,
Of my weary way and worn,
To proclaim the dawn at hand.

F. H. C.*

On a humid July day in 1879, Cushing rested in his office in the old South Tower at the Smithsonian Institution. A rap on the door and an answer brought in a boy who told Cushing that Professor Baird wished to talk to him. Cushing rose and went immediately to Baird's study. The Secretary asked, "Didn't I once hear you say you hoped some day to go to New Mexico to study a group of the Pueblo

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*Cushing, Tenatsali's Leaves, p. 5.
When Cushing replied emphatically in the affirmative, Baird told him to get his things together and be ready to leave for New Mexico with Colonel James Stevenson in four days.

The expedition had as its purpose the collection of representative examples of Indian arts and crafts from those people living at the Hopi and Zuñi villages. Cushing was being sent as the ethnologist, and Baird instructed him to learn all he could about some typical group of Pueblo Indians. "You will probably be gone three months," Baird said. "Write me frequently. I'm in a hurry this evening." This was Cushing's introduction to an adventure which would be the most important undertaking of his life. He hurried to the office of Major John

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1Frank Hamilton Cushing, "My Adventures in Zuñi," Century Illustrated Monthly Magazine, vol. 25, n.s., vol. 3 (1882-1883). This series was republished by the Peripatetic Press of Santa Fe in 1941, edited by E. DeGolyer. This work contains as well: "Zuni and Cushing" by DeGolyer, "An Aboriginal Pilgrimage" by Sylvester Baxter, and illustrations by Fanita Lanier. See p. 27, 1941 edition. All citations to this work hereinafter refer to this edition.

2James Stevenson, botanist, ethnologist, and explorer, had taken part in the Hayden surveys of 1870 and other expeditions into the Yellowstone region and the Snake River for the United States government. Through these expeditions he came to know the Blackfoot and other tribes which stimulated his interest in the American Indian. For a sketch of his life by Walter Hough, see DAB, vol. 9, pp. 631-632.

Wesley Powell, head of the Bureau of American Ethnology. Baird had told him to see the one-armed explorer and get his full instructions, since Powell had immediate supervision of the expedition. On August 1, 1879, the party left Washington by rail for Las Vegas, New Mexico, then the western terminus of the Santa Fe Railroad.

From Las Vegas the party of four—Cushing, Colonel Stevenson, his wife Matilda Coxe (Tilly) Stevenson, an ethnologist, and Jack

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4 John Wesley Powell (1834-1902) was appointed director of the Bureau of American Ethnology in 1879 when it became a division of the Smithsonian Institution. He was born at Mount Morris in western New York. After his service in the Civil War he taught geology at Illinois Wesleyan College. In 1867 and 1868 he organized and conducted parties of students and amateur naturalists across the plains to the mountains of Colorado. On the second of these trips Powell first saw the gorges of the Green and Colorado Rivers and conceived the plan to explore them by boats. In May of 1869, after receiving an appropriation from Congress, his party left from the Green River where the Union Pacific Railroad crossed it and came out from the mouth of the Grand Canyon on August 29. Powell continued these explorations in 1871, 1874, 1875, and 1877. His works on the exploration of the Colorado River and the arid land regions are considered classics. Wallace Stegner's Beyond the Hundredth Meridian: John Wesley Powell and the Second Opening of the West (Boston: Houghton Mifflin, 2nd ed., 1962), provides a very perceptive look at Powell's work in the American West.

5 Cushing, "My Adventures in Zuñi," p. 28.

6 Matilda Coxe and James Stevenson were married in 1872, and she became his field associate. Stevenson thought of himself as a man of action and became easily irked at the thought of having to write. Consequently he turned over most of his material to his wife, who achieved fame in her own right for books on Pueblo Indians. See DAB, vol. 9, pp. 634-635 for a sketch by Walter Hough.
Hillers, photographic artist\textsuperscript{7}—went by way of the Pecos Ruins to Santa Fe, and on to Fort Wingate.\textsuperscript{8} The portion of the trip from Santa Fe to Wingate took ten days.\textsuperscript{9} Cushing rode a lazy government mule ahead of the rest of the party partly because he preferred to be alone, and in part because this gave him a chance to make side trips in search of ancient remains.\textsuperscript{10}

The party rode into the Valley of the Pecos, stopping briefly at the little Mexican village of San Jose before crossing the Pecos River and a spur of the Sierra Madres.\textsuperscript{11}

\textsuperscript{7}Jack Hillers, a German immigrant, had earned his place in the Bureau by accompanying Major Powell’s expeditions down the Colorado River. Hillers was a quiet and diligent worker who struck it off with Cushing almost from their first meeting. Wallace Stegner (Beyond the Hundredth Meridian, p. 267) calls him "amiable, faithful, and bottle-loving." The first photographer of the Grand Canyon, he had a butte and a peak in the Canyon region named for him.

\textsuperscript{8}This post was built in 1868 on the Pacific slope of the mountains, some twenty-three miles west of a slight elevation called the Dividing Ridge, at an altitude of 8,822 feet. It was northwest of Albuquerque and about 150 miles from there by road. In 1875 the nearest city was Santa Fe, and a new road almost due east to the Rio Grande crossed that river at San Felipe about twenty-eight miles north of Albuquerque. See "Report on the Hygiene of the United States Army," in War Department, Surgeon General’s Office (Washington, 1875), pp. 311-314.


\textsuperscript{11}Cushing, "An Ethnological Trip to Zuni," p. 3.
INDIAN PUEBLO OF ZUNÍ, CIRCA 1883, WITH
UNITED STATES CAVALRY IN CAMP AT THE VILLAGE

Photograph courtesy Arizona Pioneers
Historical Society, Tucson, Arizona

FORT WINGATE, NEW MEXICO, IN 1885

Photograph courtesy Arizona Pioneers
Historical Society, Tucson, Arizona
village of Zuni the party moved with Hillers trailing a quarter of a mile behind Cushing. Accompanied by a military escort from Fort Wingate, they first made camp in the corral of the mission and school situated north of the pueblo on a plain. Hillers and Cushing pitched a tent, spread their blankets, arranged their trunks and cots, and made themselves a "snug little home." The Mexican interpreter with the party explained to the Zuni that these people were from "Washington," a term used by Indians as referring to the government rather than a place.

The explanation for their presence was that Washington had sent them to learn how the Zuni lived and to obtain some examples of their arts and crafts. Colonel Stevenson went to work in the house of the head man, or governor, and met with the council to secure its cooperation by making a gift of quantities of coffee and sugar.

With the help of Dr. T. F. Ealy, Stevenson obtained two rooms for a trading area, and each day he and Tilly took in the Indian "treasures" for the Smithsonian. Hillers kept busy photographing while Cushing measured, sketched, and took notes on ceremonies--


13 Ibid.

14 Dr. T. F. Ealy apparently served at the village in several capacities. Most accounts describe him as the missionary. The Annual Reports of the Commissioner of Indian Affairs refer to him as the government school teacher at Zuni.
much to the distress of the Indians who disliked this part of the intrusion. When Cushing could stand their complaints no more, he resolved to move in with Governor Palowahtiwa and establish a close friendship, thereby hoping to quiet the Indians. He chose a room forty feet long by twelve feet wide and moved his books, papers, and blankets into the home of the chief. The place had a neat, clean appearance with its white-washed walls. The floor of plastered mud was well-swept. Off in a corner Cushing spread his blankets, and to the rafters he slung a hammock. When the chief came in that night and saw that "Cushy" had made himself at home, he grunted, "How long will it be before you go back to Washington?" Cushing told him it would be two months. "Tuh!" (damn!) was the Governor's only response.

This official had a short, large-mouthed, slant-eyed, bushy-haired, hypochondriac wife who doted over her house guest. She boiled mutton for him and gave him trays of corn cakes mixed with chili and sliced beef, wrapped in husks which were boiled. Hungry as he was, Cushing complained regularly in his correspondence of the vile food

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15 Kushi or Cushy was the popular name which was given to Cushing by the Zuñi. When he was adopted into the ancient Macaw clan he received the name Ténatsali or Medicine Flower. See Arthur Woodward, "Frank Cushing, First War-Chief of Zuñi," The Masterkey, vol. 13, no. 5 (Sept. 1939), pp. 172-179 for a brief commentary on these names.

which the wife of the governor prepared. She repeatedly dropped the food on the floor, he said, and invariably stepped on the food with her moccasins—and he would not mention what she had stepped in all day long with those same moccasins! In October the Stevensons determined to go to the Hopi villages on a collecting trip. Hillers wished to accompany them, but Cushing resolved to stay and make the most of a study of one group of Indians. Before the Stevensons departed they told Cushing they would leave provisions for him with Ealy. The very next morning when he asked Ealy for his food he was informed that nothing had been left for him, and back to the house of the governor Cushing went for his dole. Cushing was now on his own, and would have to rely on his resourcefulness until the Stevensons returned.

The pueblo was situated on a great plain through which the Zuni River flowed. At this time it embraced three other towns in its government—Las Nutrias, Pescado, and Caliente—all within the reserve and from eight to fifteen miles distant. In 1890 there were some 260 houses in the Zuni pueblo. The rows of connected houses were

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17Ibid., p. 53. These were probably tamales.


terraced from two to five stories high, made of stone, rubble, clay, and adobe bricks. At the head of civil affairs was a governor appointed by the caciques, or heads of the different orders—an office held from one to three years. He in turn appointed an assistant, or lieutenant-governor, who had been suggested by the caciques. The governor also appointed six deputies to carry out his orders. Behind this staff was the council of the caciques, headed by the Chief of the Bow, which held secret meetings. It was in this political situation that Cushing found himself in October, 1879, with only two other white men present: Dr. Ealy and the local trader, Douglas D. Graham.

Cushing was now ready to launch into work for which he had been prepared in a somewhat limited way. He had had some archaeological experience but, more important, he had read and studied the theories of Lewis Henry Morgan and others and tended to lean toward the idea of social evolution. In the Southwest he would look for evidences of early stages in human life as represented in living

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21 Frank McNitt, in The Indian Traders (Norman: University of Oklahoma Press, 1962), p. 240, states that Graham "put his horse and pack mules out to pasture" and opened a trading store at Zuni in March, 1881. Cushing's letter to Baird on Dec. 14, 1879 indicates that Graham was at Zuni a year or so earlier.
On October 15, 1879 Cushing sat down to pen a letter to his friend and superior, Professor Baird. He wrote a note of thanks from the "Casa del Gobernador" for Baird's kindness in making it possible for him to have made the trip. Cushing alluded to differences between himself and Colonel Stevenson as the reason he had not earlier written. Baird responded very tartly ten days later, stating he was very upset at the thought of any internal problems. Unless Cushing wrote at least once a week, Baird said, he would have no idea what problems existed.

A week later Cushing laid bare the heart of the problem. He had started to write on numerous occasions, he said, but Colonel Stevenson had requested that he not write and especially that he make no mention of any of the collections gathered. The Colonel felt that this was his responsibility as leader of the expedition. Cushing had not wished to displease Baird, but on the other hand he could not very well alienate Stevenson. Now only with Baird asking for a full report could he correct

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24 Letter to Cushing, Oct. 25, 1879 on file at the Smithsonian Institution.
what he called "an error of my judgement, not of my heart..."\(^{25}\)

Sometime in November the Stevensons and Hillers returned to Zuni to pitch their tents in the corral of the mission. Stevenson sought out Cushing and without too many formalities drew forth a letter from the Smithsonian indicating that a continuation of leave had been granted to him, as per his request. Cushing could stay and continue his studies for a few months longer.\(^{26}\)

The old chief Palowahtiwa decided that as long as Cushing was going to live under the same roof with him he would have to become a

\(^{25}\)Letter to Baird, Nov. 7, 1879 on file at the Smithsonian Institution. Cushing differed with the Stevensons on other matters. Tilly posed problems for Cushing. Somehow she had been able to corner the market on all surplus milk or eggs at Zuni and would not share them with anyone else.

man. The pale and emaciated white man\textsuperscript{27} would have to dress like a Zuñi and eat their food. The governor personally made a long, black, fringed silken scarf for Cushing and wound it around and around his head. The "squeaking foot-packs," or shoes, were replaced with red buckskin moccasins. Next came a blue flannel shirt, corduroy breeches, and long canvas leggings—a mongrel costume indeed. The governor insisted that Cushing parade around the pueblo and move from house to house. In this way, through public exhibition, "Cushy" would be more readily accepted. Although the villagers gathered about him and embraced him as he moved from place to place, his embarrassment was

\begin{footnotesize}
\footnote{There are no good physical descriptions of Cushing, but there are adequate paintings and photographs. Portrait No. 33d in the Bureau of American Ethnology is from an original oil painting done by Thomas Hovenden (1840-1895), an Irish historical and genre painter who finished this picture probably in 1890. Hovenden met his death while trying to save a little girl who was in front of a railroad train near Morristown, Pa. Another painting by Thomas Eakins was hung in the Cushing Hall at the time this wing of the Brooklyn Museum was dedicated in 1928. One photograph was taken of the Hovenden painting and presented by Dr. Frederick Webb Hodge to the Southwest Museum in 1935. On the reverse was a statement in the handwriting of Matilda Coxe Stevenson: "Frank Hamilton Cushing in his fantastic dress worn while among the Zuñi Indians. This man was the biggest fool and charlatan I ever knew. He even put his hair up in curl papers every night. How could a man walk weighted down with so much toggery?" Another portrait, painted in 1895, was presented together with the costume to the Free Museum of Science and Art of the University of Pennsylvania by Mrs. Frank Hamilton Cushing after her husband's death. See \textit{Bulletin}, vol. 3, no. 3 (Free Museum of Science and Art, University of Pennsylvania, 1901), pp. 176-177. This is the Eakins portrait shown in the article by Helen Herbert Foster, "Frank Cushing, Zuñi Chief," \textit{The Mentor} (Sept. 1928), p. 50.}
\end{footnotesize}
such that he determined he would put his own clothes back on when he returned to his quarters. As he looked for his hat, shoes, and the rest of his attire, they were nowhere to be found—they had already been destroyed. Cushing was crushed, but he had deliberately set himself in the pose of a Zuni and would have to accept his lot.

On the evening of November 19, 1879 the Stevensons came to bid Cushing goodbye just as he was sitting down with "his family" around the supper-bowl. On the following morning before dawn, the train of mules passed over the lava hills and Cushing was once again alone. The plan of the young ethnologist was to return to Washington in two months. When he told the governor of this, the old man's reply was, "I guess not." Cushing had, since the first day of arrival, enthusiastically undertaken his studies, and now he wrote to Baird with regularity, insisting that he found the Zuni full of suggestions regarding pre-Columbia pueblos. He noted their dances in minutest details, sketched persons, and recorded data vital to an understanding of these people. He observed with anxiety the coming of the railroad which would bring in a "foreign inflow" and cause innovations among the Indians. He felt he might be one of the last to see them and their

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29 Ibid., p. 86.

30 Ibid., p. 87.
customs in purity. To accomplish his work, he wrote Baird, he had to become one of them, and undergo many hardships and some incredible experiences. The information he would extract, therefore, would not be cheaply purchased.

The Indians grew less and less reserved in their relations with Cushing. He cleansed the sores of children and ate food which "devilishly physicked" him day after day. As he put it, "never [in] a prize fight or through weeks of training" had men gone through what he had endured to gain the confidence of the Indians. He commented philosophically: "If providence spare me to ever reach Washington again, it must be with but half a stomach." As winter set in, he began the work of recording the ceremonial festivities and observances. Now he had good informants who provided him with information he had not dreamed of obtaining. He took care to record in detail his everyday activities in note books, transferring this data to more complete records each evening and often working until well after midnight. On the 16th of November, while the grand dance and ceremonies were being carried on in seven or eight different houses in widely separated areas of the town, Cushing suffered from the intense cold in trying to

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31 Letter to Baird, Oct. 29, 1879 on file at the Smithsonian Institution.
32 Ibid.
33 Letter to Baird, Oct. 29, 1879 on file at the Smithsonian Institution.
keep abreast of all that was taking place. Some of his painting had to be accomplished in secret as Indians from other villages—particularly Moqui from Isleta—did not permit such dances as these to be seen by others, and especially not by Mexicans. Great calamities such as drought and famine would visit their nation if painting were to be permitted. 34

In late November Cushing was amazed to learn that Mrs. Stevenson had begun to write for several eastern newspapers, giving out details about the Zuni. Partly through chagrin at the thought that she had stolen his thunder, partly because he himself had not thought of the possibility of writing popular articles—and specially because he was worried about what the Zuni might think when they heard that they were being written about—he told Baird that this was evidence of what he had tried to point out earlier. James Stevenson had advised him to send nothing east for publication. Now Cushing said he felt no longer bound to respect that admonition. 35 Cushing still smarted from the fact that the Stevensons, upon departing for Washington, had promised to leave food again with Dr. Ealy. Cushing later told Captain John G.

34 Letters to Baird, Nov. 7, 14, 19, 1879 on file at the Smithsonian Institution.

35 Letter to Baird, Nov. 24, 1879 on file at the Smithsonian Institution.
Bourke that all he was left with was a small package of sugar and six dollars. He wrote Baird that Stevenson had left him only twenty dollars and a hatful of promises to deposit more at Santa Fe. Cushing had sold his own meagre supplies of bacon in order to get other goods he needed. Despite all this, however, he strongly implied that the motives of Stevenson were not all bad but rather complicated by lack of funds and problems encountered on the expedition.

At midnight on November 27, 1879, Cushing sat down before a table in his room at Zuni, tired from a day that began at sunrise when he witnessed a religious ceremony. He still had several hours of work ahead of him—sketches to finish, notes to complete. He looked longingly at his hammock, but then decided to pencil a brief message to his superior because he had a message he felt should be relayed to his close friend at once. A few hours earlier, an Indian had told him of some jade and turquoise mines which might add important information.

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36John G. Bourke (1846-1896) met Cushing at Fort Wingate a few years hence, and they became fast friends for life. A soldier-ethnologist, he was well-known for his work among the Indians of the West. He served as aide-de-camp to General Crook and wrote On the Border With Crook, a classic on military life on the frontier. Walter Hough has written a sketch of Bourke in the DAB, vol. 8, p. 483.

37MS Diaries of John G. Bourke on file in the West Point Museum, with photostat copies in the University of New Mexico, vol. 54, p. 2638.

38Letters to Baird, Nov. 7, 24, 1879 on file at the Smithsonian Institution.
The route to these mines, located in the Zuni mountains fifty miles away, was not well-defined, but if he were perceptive he would be able to find the location by following certain heaps of stones which marked the trail. Cushing told Baird that the mines had been worked continuously since prehistoric times—even the Spanish chroniclers had written of them. Since Cushing was scheduled to return to Washington within a few months, he said that he had to explore these mines immediately. It was an opportunity he might never again have. Cushing, however, was torn between a desire to take more notes on the Zuni winter religious ceremonies and the urge to search for the mines. He lay awake most of the night pondering the choice he would have to make. The next morning snow began to fall—the decision was made for him. The governor of the village postponed all ceremonies until the weather cleared. Cushing concluded that this was the opportune moment to leave for the Zuni Mountains and the jade and turquoise mines.

By chance, two other men at the village were also preparing to leave in the same general direction that Cushing was headed. The

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39 Letter to Baird, Nov. 27, 1879 on file at the Smithsonian Institution.

40 Ibid.

41 Letter to Baird, Dec. 3, 1879, written at Cañon del Cobre, Zuni Mountains, New Mexico, on file at the Smithsonian Institution.
ethnologist went northeast in the company of these men, a prospector and artisan from Albuquerque named Jonathan Williams and a man Cushing called "a wanderer, Buck alias Miller." The governor, suspecting their intentions, tried to dissuade Cushing from going, but when he could not do so he produced corduroys and a flannel shirt, but would not come forth with boots, coat, or hat as he insisted that Cushy must have "his meat hardened." They passed Pescado, one of the out­lying farming-towns of the Zuni which was deserted during the winter. The trio passed ancient ruin after ruin, and long after dark reached the ranch of Ciboleta where they were entertained by some Mormons. Before sunrise they resumed their journey, stopped at the Mexican settlement of Tinaja to feed their animals, and struck northeastward across the plain and up a heavily timbered canyon into the pine-clad mountains. Cushing knew he would have to return home alone and so kept close track of the march. Over the divide and into a great open valley they moved, making camp on several occasions but sleeping not more than a few hours each time. During one rest, a band of Navajos

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42Ibid. Williams had been engaged in building a derrick for a windmill at the mission.

raided the camp and stole some of the provisions. Despite the heavy snows and the loss of food, Cushing found the "Tchalchuitl Mines" within a few days even though he had only the vaguest clues. He also located, sketched, and recorded information about several prehistoric ruins in Cañon del Cobre. As the three men started back for the Zuni pueblo on December 2, they became turned around during a blizzard and were lost for several hours until they stumbled onto a hut owned by a young prospector, one Mr. Tyzzeck. Here they decided to take refuge for the night.

At sunset, however, Cushing's two companions hastily decamped, taking with them a new reata which Cushing had used to picket his mule. In the place of the reata the men left a spliced rope. In fear that the mule would break the rotten rope and run away, Cushing repeatedly checked on his sole means of transportation. About midnight, after he had worked on his notes for the day, Cushing made a last check before going to bed. His worst fears were confirmed—the mule had broken loose. Cushing tried to find the animal that night and searched again the next morning, but fresh snows had covered up any tracks. He

44 Letter to Baird, Dec. 14, 1879, written at Fort Wingate, New Mexico, on file at the Smithsonian Institution.

45 Letter to Baird, Dec. 3, 1879, on file at the Smithsonian Institution.

46 Letter to Baird, Dec. 14, 1879, on file at the Smithsonian Institution.
was thirty-five miles from the nearest habitation—approximately the same distance to either Zuni or Fort Wingate. At noon on December 3, he penned a farewell note to Professor Baird, left the message with Tyzzeck, made up his pack, and started for civilization. He had not determined at this point which way he would walk—the snow drifts would largely determine the course of his trek. In his note to Baird, Cushing said that in mountains strange to him, and with scant provisions, the chances were about equal that he would get caught by a snowstorm and freeze, get lost and starve, or reach his destination in safety. He concluded: "If I do not return after two weeks ... you may conclude I am lost ..." Cushing also suggested that the easiest way to notify his friends and relatives of his death would be to put a paragraph in the newspapers to that effect. He closed his letter with these words: "Give my remembrance to all I loved, I say Good-bye."  

First lost and next overtaken by snowstorms, Cushing wandered in the wilderness. The intense cold and the weight of the pack on his back rendered his hands and arms useless. Two days later, on December 5, he came upon an Indian ranch where he was received with much kindness. In better spirits and with a fresh stock of provisions,

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49 Ibid.
he pushed on for two days more to Zuni where his friends welcomed him home. Cushing told the chiefs where he had been and what he had accomplished. He had found the mines and had discovered irrefutable proof that they had been worked since prehistoric times. He had seen certain other ruins, but all his specimens and artifacts were at the Tyzzeck hut. He must return and retrieve these without delay. On December 10 Cushing again started out during a snowstorm, this time on a horse loaned him by the Zuni. An Indian had agreed to act as his guide. The village trader, Douglas D. Graham, left with them, but he was unable to stand the severe cold and abandoned Cushing on the second day. After three more days of difficult travel Cushing reached the hut where the possessions and the farewell note had been left. That night and the next morning, snow fell so heavily that Cushing decided it would be impractical to recross the divide. He and his guide would have to come down the eastern slope of the Zuni Mountains and return to the village via Fort Wingate—a circuitous route of more than one hundred miles. The return trip took four days.

50 Letter to Baird, Dec. 3, 1879. The ancient quarries were not a source of jade and turquoise as Cushing had been led to believe, but turned out in his view to be quarries of minerals used to make sacred paints. See George F. Kunz's Gems and Precious Stones of North America (New York, 1890), for his analysis of gems and minerals of this area which he received from Cushing and other scientists. See also the Annual Report of the Board of Regents of the Smithsonian Institution for the Year 1880 (Washington, 1881), p. 23 for a summary of the work Cushing performed at the mines.
The first action of Cushing on arrival at Fort Wingate was to write Baird a note, in fear that word might have already reached the East that he was lost. He enclosed the farewell note unopened, for he did not want to change the tone of his thoughts when he had been in such desperate straits. He finished the letter and walked across the parade ground to find the post surgeon for medical treatment. The bedraggled and unshaven Cushing was refused any aid by the medical officer until he "took off his Indian clothes and dressed like a civilized human being." Cushing turned his back on the doctor and strode back to a room which had been provided for "the Indians." This was not the only humiliation which Cushing would face during the brief stay. Since he had been to Fort Wingate on numerous occasions, the soldiers and civilians all knew him to be an agent of the Bureau of American Ethnology. He had purchased rations at the post, received his mail there, and had driven sight-seers to the Zuni villages on occasion.

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52 Ibid. About a year later this officer was replaced by Dr. Washington Matthews, who was an ardent ethnologist for years among the Navajo and produced some notable works. Matthews was born in Ireland in 1843 but grew up in Iowa, and in 1864 received his medical degree. After the Civil War he served at a number of western military posts. An unidentified New York newspaper clipping of March 1, 1902 records this incident of Cushing's shabby treatment at Fort Wingate.


54 Ibid. Baird frequently addressed his correspondence to Cushing as "Agent for the Bureau of American Ethnology."
Cushing was no stranger, then, but he was met with indifference, insults, and taunts because of his dress and appearance. He wrote Baird that if he had known he would face such insults—the comparison of himself to a savage and beast—he would have turned back over the threatening divide. He reflected:

I had rather faced the storms of the highest peaks in the Sierras of Zuñi than the contempt that I have this day faced. The one chills only the body and freezes the skin, but the other chills all faith in humanity and freezes the heart. 55

Cushing and his guide did not delay at the fort. Within a short time they made their way to Zuñi.

While the close of the year 1879 brought these unhappy experiences, Cushing was not deterred from his primary goals: the study of the Zuni and the acquisition of all kinds of Indian materials. On the last day of the year he sent to Washington a medicine war-dress, formerly the property of Moon Plume, a Cheyenne chief who had been shot through the breast by some Utes. A Zuñi had traded for it, and then sold it to Cushing as "bad medicine." The Zuñi told Cushing that the scalp-lock fringes represented ten slain Utes. 56 Baird's annual reports to the regents of the Smithsonian contained optimistic comment on Cushing's investigations into the traditions, history, manners, customs,

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55 Letter to Baird, Jan. 16, 1880 on file at the Smithsonian Institution.
56 Letter to Baird, Dec. 30, 1879 on file at the Smithsonian Institution.
songs, and dances of the native peoples, and the secretary hoped for a rich harvest of interesting discoveries. 57

Cushing had been in Zuni some four months as the year 1880 opened. Much of his time was now spent in conversation as a means of drawing out information. One evening early in the year he learned for the first time of thirteen related orders of societies, divided functionally into four classes: War, Priesthood, Medicine, and Chase. The most powerful class, and the one which struck Cushing, was the "Priests of the Bow" or "A-pi-thian-shi-wa-ni". This particular order, strictly secret, was possessed of twelve degrees, distinguished by distinctive badges. Cushing's sole purpose in seeking membership was to secure enough standing to gain entrance to these secret meetings, and for the next two years he endured fasting, witnessed ordeals, and suffered from over-exposure and pneumonia in his attempt to become a Zuni chief. 58

Even in this distant land, governmental red tape posed continual problems for Cushing. His vouchers were always signed incorrectly, or not filled out, or lost in the mails. His need for cash was unending, and he asked for fragments of blue shells and green stones

57 Annual Report of the Board of Regents of the Smithsonian Institution for the Year 1880 (Washington, 1881), pp. 22-23.

since these made excellent trading material with the Zuni. On the last day of January, 1880, Professor Baird gave his approval, along with Major Powell's, for Cushing to again extend his stay for several months if "by so doing you can advance your knowledge of Indian life and character." The secretary promptly went to work writing to various people to obtain shells and stones, but Cushing now became somewhat impatient and made frequent trips to Fort Wingate to get his mail. It arrived once a week at the post, but nine to ten days were required for a letter to travel to or from Washington.

Turquoise and shell soon became factors of great importance in Cushing's relations with the Zuni, and in realization of this fact both Baird and Powell went to unusual lengths in attempting to locate these trade goods. Not only did they write many letters but also they made personal trips about the East in search of stones and beads, evidently recognizing that such goods would prove to be the key in obtaining ethnological materials for the Smithsonian. In October of 1880 the

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59 Letter to Baird, Jan. 16, 1880 on file at the Smithsonian Institution.

60 Letter to Cushing, Jan. 31, 1880 on file at the Smithsonian Institution.

61 Letter to Cushing, Mar. 4, 1880 on file at the Smithsonian Institution.

62 Letters of Baird to B. Phillips, Times Office, New York, Mar. 4, 1880, and to Cushing, May 18, 1880; Cushing to Baird, June 20, 1880 and Aug. 2, 1880 on file at the Smithsonian Institution.
chief executive officer of the Smithsonian, William Jones Rhees, finally sent four boxes of beads by registered mail to Cushing. Meanwhile, Major Powell continued to encourage Cushing in various ways. Concerned over the treatment that his ethnologist had received at Fort Wingate, Powell asked Dr. Washington Matthews to see to it that Cushing was given every possible assistance.

In May of 1880 Cushing reported to Baird that for two months he had been in and out of bed with a pulmonary illness, and at times he could do little more than write his daily memoranda. Not given a chance to rest because his Indian friends now demanded his exclusive attention, he did not recover as rapidly as he should have. He had innumerable chest colds, the result perhaps of inadequate clothing and on one occasion he was confined to his room for weeks. "A walk across the pueblo,"

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63 William Jones Rhees (1830-1907), born in Philadelphia, had charge of social statistics for the 7th U. S. Census (1850) and was secretary of the central executive committee in Washington for the London World's Fair of 1851 before becoming chief clerk of the Smithsonian in 1852. He served as chief executive officer under three secretaries—Henry, Baird, and Langley—and was in charge of publications for many years. Late in his career he was made Keeper of the Archives at the Smithsonian. See DAB, vol. 8, pp. 525-526.

64 Letter to Cushing, Oct. 8, 1880 on file at the Smithsonian Institution.

65 Letter to Cushing, April 8, 1880 on file at the Smithsonian Institution.

66 Letter to Baird, May 5, 1880 on file at the Smithsonian Institution.
he wrote, "would exhaust me," but he had care and help from his Zuni brother and sister (K'ra-wu). 67

As if these pulmonary ailments were not enough, he found himself plagued with a stomach illness which he attributed to the Zuni food. This may or may not have been the case. Frederick Webb Hodge, a close friend and brother-in-law, indicated many years later that Cushing had been born with a deformed stomach. Apparently Cushing did not know this. While the Hemenway Expedition worked in the Salt River Valley, Arizona, Cushing suffered dreadfully from tapeworm, and attempted to treat this in his own way which nearly caused his death. 68

Aside from the native foods, Cushing's diet at Zuni included some sugar, coffee, chocolate, canned milk, dried apples, sardines, canned salmon, bacon, beef, and a huge quantity of rice. The native fare comprised corn, native beans, dried green squashes, chili, and some mutton, goat, horse flesh, and game. Once in a while he was fortunate enough to be invited to have a meal with the missionary. He pled for flour and asked Baird to contact the military authorities at Fort Wingate for permission to obtain rations there. 69

The Secretary, who

69 Letter to Baird, May 5, 1880 on file at the Smithsonian Institution.
preferred to take direct action and expedite problems which lesser men would have strummed over, wrote to the commanding general of the Army, William Tecumseh Sherman, for simple advice on how Cushing could get rations at a cost of twelve and a half cents a day at Wingate.70

In June Cushing still suffered with his lungs, a sickness he felt was caused by the severe dry and cold winds which at times seemed as though they were of monsoon ferocity. These sand winds blinded and suffocated him, he told Baird, so that he was frequently confined to his bed during the day. And he smoked only sparingly now, saving every scratch of tobacco for use to give him a seat in the councils and sacred estufas.71

Cushing's correspondence was becoming voluminous. He wrote frequently of his pressing need for official stationery, envelopes, unruled foolscap, and the excellent ink of the period, "French Brilliant." With little or no library to work with, he asked Baird to locate and send him certain works of value. Would the Secretary please purchase them and charge them against his account? In case of his

70 Letter to Sherman, May 18, 1880 on file at the Smithsonian Institution.

71 Letter to Baird, June 20, 1880 on file at the Smithsonian Institution. An estufa is a religious ceremonial underground structure.
death, the Smithsonian could keep the books! One of the reasons why he needed reference works was because he had become interested in the old church at Zuni, long deserted. In some entries in the Reports of Explorations and Surveys, published in 1856, he noted quotations from the penmark of "Spanish adventurers" and was thus drawn into a new aspect of research. By comparison of old Spanish names of the area with Zuni terms of the present, he felt he could definitely locate the Seven Cities of Cibola.

In his wanderings Cushing was stumbling constantly upon the half-buried ruins of ancient towns. The officers at Fort Wingate advised him not to go out on these searches, and if he must go he should arm himself fully. He was told that he should not go to Silver City to investigate some caves, as the Mescalero chief Victorio had been active in that area and had almost wiped out the inhabitants of Mesilla.

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72 Letters to Baird, June 20 and July 2, 1880 on file at the Smithsonian Institution. Among the works requested by Cushing were these: Hakluyt's Voyages, vols. I, II, III; Davis' Conquest of New Mexico; Sitgreaves' Report; the Smithsonian Annual Report containing material on Coronado's march to Cibola; the number of the Popular Science Monthly containing Dr. Loew's article on Zuni; Bancroft's Native Races of the Pacific States; and Spanish and French dictionaries.

73 Cushing cited some convincing arguments to Baird. His notes are very full regarding Marcos de Niza and Coronado, but no publication resulted from this research.
in the Rio Grande Valley. Cushing had a strong adverse feeling toward these Indians as well as toward the Mormons, whom he called "my special enemies." Their encroachments upon the Zuni Reserve had not set well with either Cushing or his charges.

In July Cushing again stressed the need for staying longer at Zuni. At this time there was no particular opposition to his wishes, but he felt it necessary to reiterate his hope of staying until he had exhausted all possible aspects of Zuni life. (Besides, if he left the elevated region of 8,500 feet and returned to the dense atmosphere of Washington, the results would be unfavorable to him!) The Zuni, he reported to Baird, had killed one of their own men after a ridiculous trial. Cushing had attended this mockery and had observed the violent execution which took place early the next morning. Dr. Ealy confirmed that this Indian purportedly had bewitched two young girls in the village. At dawn on July 4 the hands of the Indian were tied behind his

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74 Letter to Baird, June 20, 1880 on file at the Smithsonian Institution.

75 Camp Apache, first called Camp Ord, was in the heart of the Coyotero Apache country near present-day Whiteriver, Arizona.

76 Letter to Baird, July 2, 1880 on file at the Smithsonian Institution.

77 Letter to Baird, July 18, 1880 on file at the Smithsonian Institution.
back, and he was then lifted on a pole so that his feet barely touched the ground. In this position he was forced to confess to the charges. An artist's conception of this torture appeared in a popular article published in 1882.

Although Cushing had lived among the Zuni for some months, he was now looked upon by some as a sorcerer. There existed a strong resentment, he said, among certain groups in the village when he took notes and sketched the winter ceremonies. On one occasion an adverse group started a war dance, Cushing thought, to intimidate him and to keep him from collecting sacred articles. As a result the tribe was infuriated, and he could sketch neither the sacred dances nor the ceremonies. But he was able to win the confidence of some of the Indians because he had established a reputation of never having flinched.


79 Cushing, "My Adventures in Zuni," with sketch by Henry F. Farny on p. 44.

from their worst demonstrations—a distinction "very valuable among Indians of absolute fearlessness."81

One day Cushing propped himself at the top of a ladder which rested against the roof of his quarters. He started to sketch and take notes when a sudden cry arose among the officers of the dance, "Kill him! Kill him!" Two of the "naked painted devils" rushed to the foot of the ladder and brandished their stone knives and wooden war clubs. Cushing calmly put his pencil behind his ear, smiled, and drew a big hunting knife from his belt. The noise and shouts were hushed—Cushing felt "a thousand eyes" upon him. Still smiling, he laid down the knife and continued his work as though nothing had happened. 82 Immediately the Ne-we-kwi set up a cry that they had made a mistake—Cushy was no enemy, nor like one. It was not him they now wanted; they found instead, and killed in the most revolting manner describable, a big yellow dog. Cushing had been tested. His initiation into one of the Zuni religious orders had begun. 83

A few days later Cushing was called to administer sacred rites to a little girl who was afraid of him. The ceremony consisted of taking a lock of his hair and throwing it on coals in a little bowl.

81 Letter to Baird, July 18, 1880 on file at the Smithsonian Institution.
83 Ibid., and letter to Baird, July 18, 1880 on file at the Smithsonian Institution.
Then, as he held the little girl still, a blanket was spread over her so that the smoke could not escape. This done, he breathed into her mouth and nostrils three or four times. He then said a sacred word to her and the ceremony ended.

In all this Cushing grew to be pretty much a master of his situation. He was careful not to interfere in any question unless it was connected with his work. His Zuni friends treated him with respect, and his enemies with an unbounded fear. His living conditions, though still abominable, did not affect his work, and he suffered from nostalgia only when he questioned his own ability to carry out the job he had been sent to do. With the start of the summer rains some of his health problems vanished, but in mid-August his lungs began to bother him again. He found whiskey to be of no use and gave it up.

With Cushing working in a virgin field, various scientists in the East could not resist asking favors of him. Baird was one of the first to do so. The Secretary wanted some eggs of "the little blue Maximilian jay" and other species like the golden eagle, owls, and woodpeckers. Within two weeks Cushing had ready for shipment

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84 Diary Notes of F. H. Cushing (July 21, 1880) on file at the Southwest Museum.

85 Letter to Baird, July 18, 1880 on file at the Smithsonian Institution.

86 Letter to Baird, Aug. 19, 1880 on file at the Smithsonian Institution.

87 Letter to Cushing, Sept. 2, 1880 on file at the Smithsonian Institution.
several varieties of the woodpecker, two species of the eagle—which he could not identify—two or three species of the hawk and falcon, and five species of owl. He would attempt, he told Baird, to get a rich harvest in skins, nests, and eggs of rare southwestern species if supplied with alcohol and other facilities.  

In November of 1880 he received word from both Baird and Powell asking for a census to be made of Zuni. Cushing undertook the enumeration for, as he said, he "held it impossible for myself to have reasons of a personal nature, against anything you may wish me to do ...." At the same time he continued his social and religious studies, explored certain caves and cliff ruins, and continued to gather specimens of flora and fauna. The cooperation was by no means one-sided, however, for Baird and Powell made possible a further extension of Cushing's stay at Zuni, provided him with more trade goods, and gave him many more supplies and equipment for his work. He suffered one serious setback late in the year when the product of his research involving the etymology of the Zuni languages was lost in the mail somewhere between Fort Wingate and Zuni.  

88 Letter to Baird, Sept. 18, 1880 on file at the Smithsonian Institution.  
89 Letter to Baird, Nov. 28, 1880 on file at the Smithsonian Institution.  
90 Letter to Baird, Dec. 19, 1880 on file at the Smithsonian Institution.
As the year 1880 came to an end, Cushing could look back with satisfaction at his work among the Zuni Indians. He had accomplished much more than he originally had expected. The officials of the Smithsonian, well pleased with his collecting, were content to have him remain in the Southwest. A few words, most of them complimentary and expressing the curiosity of the day regarding antiquities, had reached the outside world. Among many scientists it was expected that Cushing would soon reveal certain aspects of ancient life as yet unknown. Only one letter, signed "Irish Lord," expressed a sour note. Here it was recommended that the "zeal of certain statesmen for appropriations" might better be expended in inducing Congress to build a wagon road across the Mogollons. "The Zuñis as I see them," said the writer, "are a dull, uninteresting race . . . ." Cushing would hardly agree.


CHAPTER II

TO THE BOTTOM OF THE GRAND CANYON

Now and Then

I look above and all is blue
Save a single blaze of golden hue.
This, when I look in the day
I look above in the vault of night
I see not one, but many a light,
For the sun has passed away

Thus may it be in my spirit's life,
While my days are joyous and free from strife,
Of lights may I have but one
But when all the world seems filled with woe
And dark is the way through which I go,
May the stars take the place of the sun.

F. H. C.*

A California periodical of January, 1881, related Cushing's trials and tribulations among the Zuni. This article, which told of the sacrifices being made in the interest of science, was pasted in a notebook kept by Captain John G. Bourke. In March, 1881, Bourke

*F. H. Cushing, Tenatsali's Leaves, p. 4.


received permission from his commanding officer, Philip H. Sheridan, to leave his post at Omaha in order to study several Indian tribes. In this period it was possible to obtain such a leave, and many officers made important contributions to the study of ethnology by this means. Bourke had planned to visit some of the Pueblos, but desired to stay at Fort Wingate in order to make arrangements for field trips. Bourke recorded that at the brief stay at Fort Wingate he had the "great pleasure of meeting Cushing." Seated in the officers' club at the time were Sylvester Baxter, special correspondent for the Boston Herald, and Willard L. Metcalfe, artist on the staff of Harper's Magazine, both on assignments in the West.

Baxter wrote: "We saw a striking figure walking across the parade ground . . . a slender young man in a picturesque costume; a

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3 Sheridan at this time was commanding the Military District of the Missouri from his headquarters at Chicago.


5 Sylvester Baxter, born in Massachusetts in 1850, was on the staff of the Boston Advertiser (1871-1875) and the Boston Herald (1879-1883), and served as editor of the Mexican Financier (1883-1884) and Outing Magazine (1885-1886). He was the originator of the Boston metropolitan park system and the author of many books, short stories, poems, and essays. He is listed in Who's Who in America (Chicago: A. N. Marquis and Co., 1912-1913), vol. 7, p. 129.

6 Willard Leroy Metcalfe, born at Lowell, Massachusetts in 1858, was a highly trained artist whose works are in the permanent collections of many institutions.
FRANK H. CUSHING MENDING A POTTERY VESSEL

Photograph by J. K. Hillers, courtesy of Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.
high-crowned and broad-brimmed felt hat above long blonde hair and prominent features; face, figure, and general aspect looked as if he might have stepped out of the frame of a cavalier's portrait at the time of King Charles."⁷ They were told this was Frank Hamilton Cushing, a young gentleman commissioned by the Smithsonian. Cushing by now had noted a different attitude among those officers and men at Fort Win­gate. He felt that he was popular among those there "save only . . . those . . . stationed there during the winter of '79, '80 . . . ."⁸ On May 18, a Wednesday, the party of Baxter, Metcalfe, and Bourke went to Zuni and put up at Graham's store where they met Dr. Ealy, a cook named Hathorn,⁹ and Dr. Enos L. Cushing, Frank's brother. Cushing himself was not at the village at the time. While out on a short field trip, he had been taken ill. The food served by his Zuni family was so disagreeable to him that it gave him severe indigestion and, according to some, blood poisoning. The angry complexion which Cushing had from then on was due to this "scrofulous tendency which developed into painful and disagreeable eruptions upon his face . . . as the

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⁸Letter to Baird, May 12, 1881 on file at the Smithsonian Institution.

⁹Bloom (ed.), "Bourke on the Southwest . . .", vol. 11, no. 1, p. 113. Hathorn had been a packer for Bourke and General George Crook during the Arizona campaigns of 1872-1873.
result of his voluntary experience as a chronic dyspeptic, with his blood full of poison."10 His brother had come to Zuni to give him treatment.

The next day Captain Bourke and Dr. Cushing toured the town and borrowed a pony to ride about with the governor. On the 21st the party had to leave Zuni without seeing Cushing, but Bourke left a number of messages for him. In his journals, Bourke noted the thoroughness of Cushing's investigations, and made an entry that he himself could do nothing which would not appear "ridiculously insignificant in contrast."11 Bourke met Cushing at Fort Wingate on May 28-29, 1881, thus beginning a close friendship that would not end until the death of Cushing. He thought the young scientist to be the most intelligent ethnologist he had ever encountered. Baxter and Metcalfe returned to Zuni with Cushing in early June in a four-mule ambulance, coming by way of the southerly slope of the Zuni range and the Las Nutrias Valley. At Pescado, another of the summer villages, they

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11 Bloom (ed.), "Bourke on the Southwest . . .", vol. 11, no. 2 (April 1936), pp. 187, 201. Bloom notes in fn 9, p. 202 that Bourke later wrote items in the Chicago Times and the Chicago Inter-Ocean, both dated June 14, and the Omaha Herald of June 15, all praising the work of Cushing. Ibid., vol. 11, no. 3 (July 1936), pp. 241-244.
stayed the night, and moved on the next day to Zuni and into Cushing's room at the pueblo. 12

Here Baxter saw the true conditions under which Cushing lived. In his room at the governor's house he found "a writing-table, a case of bookshelves with the books necessary to his studies and the volumes of valuable notes that recorded his investigations, a stool, a student-lamp, and a hammock." 13 He commented particularly on the "wonderful addition of a telephone which Cushing and his brother . . . constructed out of a couple of old tin cans and several hundred yards of twine . . . ." 14 The newspapermen found the stories they had come for, and in a very real sense they were responsible for proclaiming Cushing in the East.

In May of 1881, while at Wingate, Cushing met Lieutenant W. W. Witherspoon, post adjutant and regimental quartermaster of Fort Whipple, Arizona Territory, who offered to accompany the ethnologist to some cliff ruins on Beaver Creek in the Verde Valley. 15 Less than a month later Cushing wrote in despondent terms to Baird that he had

13 Ibid., p. 79.
14 Ibid., pp. 79-80.
15 Letter to Baird, May 12, 1881 on file at the Smithsonian Institution. These ruins may have been what are today known as Montezuma Castle and Well near Cornville, Arizona.
missed "possibly the finest opportunity of my life--priority in the
description of the Khu ni Havasupai," A cavalry expedition with Dr.
Elliot Coues as surgeon and naturalist, and Lieutenant Carl F.
Palfrey as engineer officer, had left Fort Whipple on June 4, to
explore and survey the country of the Havasupai.

Eager as he was to make a major ethnological discovery,
Cushing realized that his collecting of specimens was of prime impor­tance in the eyes of his superiors. He tirelessley went about this work.
In one cave he had cached more than a thousand artifacts, at another
cave five hundred, and slightly more than that in a third. By now the
Zuni had become so friendly that they permitted him to collect the para­phernalia of their sacred dances. He must be assured, he told Baird,
that Stevenson would send him only the best of trade goods and no more

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16 Elliot Coues, born in New Hampshire in 1842, was appointed to West
Point as a medical cadet in 1862. He accompanied the Territorial
party to Arizona in 1864 and served at Fort Whipple. On a number of
occasions he was granted leave to accompany scientific parties as a
surgeon and naturalist. From 1876 to 1880 he was surgeon and natura­list of the U. S. Geographical and Geological Survey of the Territories.
He resigned from the service in 1881 and died on Christmas day of 1899.
(1899), pp. 159-161.

17 Carl Follen Palfrey graduated from the Military Academy in 1865 as
a 2nd lieutenant in the artillery and was later transferred to the Corps
of Engineers. He was promoted to captain in 1883 and retired in 1895.
See Francis B. Heitman (comp.) Historical Register of the U. S. Army
(Washington, 1903), vol. 1, p. 706.

18 Letter to Baird, June 10, 1881 on file at the Smithsonian Institution.
of the imitation turquoise and wax beads. Cushing had thought at first glance that these were genuine, but his reputation was very nearly ruined when they melted around the Indians' necks. At the same time, the enterprising ethnologist sent one hundred dollars of his own money east to purchase a lathe with which he could turn out other trade goods.

In the spring of 1881 Baird and Major Powell discussed Cushing's tenure at Zuni and decided that he now should use his own judgment in the matter of returning home. They were so well satisfied that the option was entirely his. "Of course there is plenty of work here that you can do," Baird remarked jokingly, "as we are about to bring possession of the new Museum building." But Cushing wished to stay, and Baird now arranged to get him a standing compass, grid-meter, and chain and engineering paper. These items were sent to Fort Wingate, and orders were issued for him to have a team, forage, and tent available at that post.

Meanwhile Cushing was being admitted into the ancient Zuni war order of "Bearers of the Bow" and had undergone certain rites of

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19 Letter to Baird, March 21, 1881 on file at the Smithsonian Institution.

20 Letter to Cushing, March 26, 1881 on file at the Smithsonian Institution.

21 Note to Cushing, March 12, 1881 on file at the Smithsonian Institution; and letter to Cushing, April 5, 1881.
membership. One requisite was that the novice take the scalp of an enemy, preferably an Apache. A newspaper reporter later told an incredulous story of such a feat by Cushing—a tale which would be repeated many times: Cushing supposedly had been on a hunting trip and had returned to Zuni triumphantly waving a scalp over his head as a sign of success. There is no evidence that Cushing did this. Since he was at Zuni to learn all he could about these people, it is improbable that he attempted to deceive his Indian friends by trying to make them believe he had taken a scalp. He knew that he had to keep their respect and full trust if they were to accept him. The evidence is clear, in any case, that Cushing had no desire to try to take a scalp. On April 9, 1881 Baird received the following message from Dr. Harry Crecy Yarrow: "... Mr. Frank Cushing [has] sent me a request for a scalp to be used for a certain ceremony connected with his installation as War Chief of the Zuni's."22 One month later Yarrow wrote Baird: "I send by messenger the scalp of Pe-ho-nan... for Mr. Cushing... Will you be good enough to have it forwarded to him?"23

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22 Letter to Baird, April 8, 1881 on file at the Smithsonian Institution. Yarrow, a physician, was born in Philadelphia in 1840 where he studied before going to Switzerland for further education. He graduated from the medical college of the University of Pennsylvania in 1861. During the Civil War he served as an assistant surgeon in the 5th Pennsylvania Cavalry and later as surgeon and naturalist of the expedition for the Exploration of the Territory West of the 100th meridian, under Lieutenant George M. Wheeler. He was later appointed curator of the department of reptiles in the U. S. National Museum.

23 Letter to Baird, May 9, 1881 on file at the Smithsonian Institution.
The new war chief of the Zuni had already complained to Baird that he had missed his opportunity to discover the Havasupai, but at least he was to have a chance to study these Indians of northwestern Arizona. The expedition of Dr. Coues, organized at Fort Whipple, was about to set out for the Grand Canyon when Cushing and a few of his Zuni friends were invited to join it. Cushing sent a telegram of acceptance to Lieutenant Witherspoon on June 10, stating that his party would leave the next morning and would hope to catch up with Coues in nine or ten days by coming over the trail through the Moqui Desert. He would borrow one hundred dollars from Dr. Washington Matthews for his supplies, he told Baird in a hasty letter, pointing out that the time to go to the Grand Canyon was ideal since no important ceremonies would take place at Zuni for the next two months. As if to sidetrack any objection that Baird might have, Cushing mentioned the destitute condition of the Zuni. Their crops had been poor, he said, due to severe sandstorms, drought, and grasshoppers. What could be done for them? Cushing insisted that two-thirds of the tribe were in dire need, but at the same time a Prescott newspaper reported that a major dance

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25 Letter to Baird, June 10, 1881 on file at the Smithsonian Institution.

26 Ibid.
was underway at Zuni and that some one hundred women had come into the placita laden down with everything from cornmeal to mutton. 27 The informant was none other than Dr. Ealy, who apparently also supplied a note in the next issue of the paper to the effect that Cushing had obtained great influence among the Zuni. 28 Cushing meanwhile was proceeding with the head chief and an adopted Hopi, acting as guide and interpreter, full speed toward the Grand Canyon with two government mules laden with trade goods, provisions, and scientific equipment. From the Hopi Agency late in June he wrote Baird that he planned to take a census of the Havasupai and make a vocabulary of their language. 29

Cushing was warmly welcomed at the Hopi villages and adopted by the cacique there. On the 25th he left Walpi on a planned three-day march across the desert, 30 accompanied by Tsai-iu-tsaih-ti-wa, a young Hopi guide, and Tits-ke-mat-se, a Cheyenne protege of Captain Richard H. Pratt who had been educated in the East and sent by Baird

27 (Prescott) Arizona Democrat, June 17, 1881.
28 Ibid., June 24, 1881.
29 Letter to Baird, June 24, 1881 on file at the Smithsonian Institution.
30 Ibid.
to serve as Cushing's assistant. As they struck out across the desert, Cushing noted that it was covered with luxuriant grasses and flowers of all colors. But the trek was a difficult one because of the lack of water, and it tested Cushing's courage and leadership. On one occasion he found it necessary to draw his pistol to prevent the men from drinking all the water in their canteens. He berated them for having bragged at the Hopi villages of their feats of endurance, and apparently they took his words to heart. The party moved on rapidly and soon reached the pine forests of the Prescott area. From Fort Whipple on July 22, Cushing wired Baird: "Come in last evening. Have had narrow escapes but successful. Most kindly received. While resting animals I shall make an exploration of ruins in these parts . . . ."

When Cushing's party reached the Grand Canyon, they found no sign of Dr. Coues' expedition. The military party had been there a week earlier but had since left. Cushing and his men undertook their descent alone, scrambling over huge boulders and creeping along a trail only a foot wide until at last they reached the bottom some twelve hundred feet below. Here and there they caught a glimpse of a frightened Havasupai, very lightly clothed, disappearing into the brush. On the canyon floor they soon located the village of the Havasupai.

\[31\] Tits-ke-mat-se had expressed a desire to work with Cushing. He arrived at the Hopi villages just in time to join Cushing's party.

\[32\] Telegram on file at the Smithsonian Institution.
surrounded by fields under cultivation with fruits and vegetables and irrigated by canals. The flat-roofed cabins of the Indians stood among the willows at the edge of the great Colorado. 33 Upon entering the village, Cushing's party met a white man, a self-exiled prospector named Harvey Sample who evidently had come down with Dr. Coues' expedition a few days before. 34 Sample apparently had informed the military commander, Colonel William R. Price of the Sixth Cavalry, that he wished to stay, and was permitted to do so.

Cushing's observations of the Havasupai, published a year later, were remarkably full. His details on their physical appearance, their traits and temperament, their social organization, religious ceremonies, methods of agriculture, and arts and crafts could have been compiled by perhaps no other ethnologist of the period since no other had experience comparable to Cushing's at Zuni. 35 Cushing was aware of the uniqueness of his qualifications, and his letters to Baird grew bolder. After his return from the Grand Canyon he wrote from Fort Whipple to say that he had found it necessary to borrow money from one C. F. Kirchner, a St. Louis man whom he had met in the


34 Ibid., p. 374.

vicinity. Kirchner had also loaned a rifle to Cushing. These remarks clearly were meant to impress upon the Secretary the fact that the Smithsonian would have to support its field ethnologist more abundantly in the future.

Cushing spent more than a month in the Prescott area, not leaving for Zuni until the middle of September. His return trip he described as "severe," four days of it through country recently raided by Apaches; but this condition was "far from being disastrous" for Cushing, for it enabled him to obtain a scalp apparently under the very eyes of his Zuni companions. Just how he secured this scalp he did not say, but together with the two he had already received from Dr. Yarrow and from his father he could now expect "to get a hearing in the secret council." He had labored toward this end for more than seven months. Would Baird send him funds to cover the expenses he had incurred on his recent expedition during which three of his pack animals had died from thirst? As a novitiate of the Zuni priesthood he would have to give a grand feast for the entire tribe. Since he was $237 in debt, he implored Baird to send him three hundred dollars immediately.

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36 Letter to Baird, Aug. 15, 1881 on file at the Smithsonian Institution.
37 Letter to Baird, Sept. 24, 1881 on file at the Smithsonian Institution. Other letters relating to this matter are those from Yarrow to Baird, March 31 and April 8, 1881.
38 Ibid.
On October 12 Cushing proudly reported success in being admitted into the secret order of the A-pi-thian-shi-wa-ni, or Priests of the Bow. He had first to be made a "Son of the Parrots," which gave him the position of "Junior Priest," and now he had the choice of taking the twelve other degrees of the society or of entering any of the ten medicine orders of the tribe. He had already been required to recite ten of the sacred vows in the Zuni language, to sit a whole day in a motionless attitude and in silence, and to dance for three nights in the kiva, the last of which continued until physical exhaustion set in. Prior to this, he said, he had planned to give up and come home early in January of 1882, but now he saw that it would take four more years of exhaustive work to get all the information available! In any event, he wanted to return to Washington in January with four or five Indians, and already had started negotiations to secure free passage for his party via Omaha and Chicago. He felt that his friends in the East would aid in strengthening and advancing his future work at Zuni. The Zuni, he said, wanted to see his great cacique's house--the White House--and to look upon all the great things of the white man. In return they had promised Cushing all the information he sought and all the beautiful and interesting things he wanted for his museum. It was not until mid-December, however, that Cushing received a reply to his request.

39 Letter to Baird, Oct. 12, 1881 on file at the Smithsonian Institution.
On the 14th of that month the chief clerk, James C. Pilling, wrote Cushing under orders from Baird, who was ill, to get an estimate of the cost of bringing two Indians—a man and a woman—to Washington. On Christmas day Cushing gave a new and urgent reason as to why he wanted to make the trip. He had been given an ultimatum either to marry a Zuni girl or to make a grand tour with some of the principal men of the pueblo—and he infinitely preferred the idea of travel. But there were advantages to the Smithsonian as well. He wanted the Zuni to see something of his former life, to gain more confidence in him, and understand why the collections were being made. He intended to show them his genuineness and to prove to them that his work was important. Then, too, Cushing felt that there were many people of culture and wealth in various eastern cities who desired that he make this trip in order to advance his work and that of the Institution.

Meanwhile there had been some excitement at Zuni. In November, 1881, Captain Bourke again visited Cushing at the pueblo. The

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40 James Constantine Pilling was born in Washington, D. C., in 1846. Educated at Gonzaga, he was fortunate in securing an assignment with Powell's survey of the Rocky Mountains in 1875. "Uncle Jim's Point" in the Grand Canyon and Pilling Cascade in Kanab Canyon are named for him. Later in his career he was chief clerk of the Geological Survey and chief clerk of the Bureau of Ethnology. A devoted bibliographer, he amassed many publications in these fields. He died in 1895.

41 Letter to Cushing, Dec. 14, 1881 on file at the Smithsonian Institution.

42 Letter to Pilling, Dec. 25, 1881 on file at the Smithsonian Institution.
Stevensons and Victor Mindeleff were also there at the time, having come to make sketches of the buildings and to prepare a clay model for the Smithsonian. Bourke greatly admired the sketch drawn by Mindeleff to a scale of 1/240th, and he and Mindeleff were allowed to see dances and hear tales which Bourke found highly interesting. Although Cushing's correspondence seldom expressed any particular hostility toward his fellow-workers, he apparently did not camouflage his feelings altogether in conversation. Bourke clearly was aware of the differences between the young ethnologist and Mrs. Stevenson, for in his diary he recorded an incident involving Mrs. Stevenson and the new Presbyterian school teacher, S. A. Bentley. The two of them had told the Zuni chiefs that Cushing was not the official representative of the government and was of no real importance. Bourke, in a strong defense of Cushing, informed the Indians that Cushing surely had been sent by the government, that Mrs. Stevenson and Bentley had not told them the truth, and that he as an army officer would tell the "Great Father" in Washington who Cushing's enemies were.


44 Bourke, MS Diary, vol. 54, pp. 2585, 2592-2599.

Cushing's problems with Bentley did not end here. A somewhat more serious matter concerned Ramón Luna, a Zuni who had been strongly influenced by Mormon missionaries. Since Luna was refusing to recognize either tribal law or the authority of the government, Agent Ben Thomas at Santa Fe asked Cushing to look into the matter. Captain Bourke suggested that a squad of soldiers in uniform be sent to arrest Luna and make him appear before the Zuni council. Cushing, Bourke, and the troops went to Luna's house, arrested him, and took him to the house of the governor where he heard Cushing interpret Bourke's warning that the "Great Father" in Washington would punish those Indians who made trouble. Sufficiently intimidated, Luna promised to behave. But Bentley disapproved of Cushing's action and declared that he would complain officially to Washington. Cushing notified Baird of the trouble with Bentley in a letter early in December, and in reply was told to do what he could to maintain a pleasant state of affairs at the pueblo. Bentley apparently did not make the threatened complaint, and the matter died. In a letter just before Christmas Cushing indicated that he expected no further trouble. He was a Priest of the Bow, he said, and if Bentley saw

46 Ibid., pp. 2607ff.
47 Letter to Baird, Dec. 4, 1881 on file at the Smithsonian Institution.
fit to interfere he would either "disfigure his . . . countenance" or "use my influence with the Indians openly yet legitimately against him." 49

Cushing had learned to enjoy an occasional quarrel, but he greatly regretted any dispute which consumed too much valuable working time. An example of one which did--and which was not resolved for more than a year--concerned the complaints of Lieutenant W. W. Witherspoon, his erstwhile supporter at Fort Whipple. Witherspoon angrily charged that Cushing had ignored his official requests for information about a mule which the ethnologist had borrowed for his trip to the Grand Canyon. 50 Baird, who did not want official embarrassment for the Smithsonian, had to ask Cushing for an explanation and for affidavits. 51 Cushing finally supplied these, expressing his sorrow that Witherspoon, his "generous host and constant defender," had seen fit to "press him in such tones." The ethnologist explained that the mule in question was needed by Captain Bourke's driver, who had lost the animal at Las Nutrias. Bourke had sent an affidavit to the proper

49 Letter to Pilling, Dec. 24, 1881 on file at the Smithsonian Institution.

50 Letter to Baird, Dec. 15, 1882 on file at the Smithsonian Institution.

51 Letters to Cushing, Dec. 16, 1882 and Jan. 29, 1883 on file at the Smithsonian Institution.
authorities, Cushing said, and on a number of occasions he himself had
given this information to Witherspoon but had never received a reply. 52

Late in January, 1882, Baird notified Cushing that he was being transferred from the rolls of the U. S. National Museum to the
Bureau of American Ethnology. The reason given was that Major
Powell had funds available for ethnological research. 53 Cushing wrote
immediately to assure Powell that he would do all in his power to fur-
ther his wishes and would send frequent reports concerning his work. 54
The next day he wrote Baird that he regretted the change but saw the
benefits and would remember his service under the Secretary as an
honor, and not so much of duty as of love. 55 Other salutatory letters
followed. 56

By this time Cushing's tour to the East had been approved,
but in order to get permission to bring more than two Indians he had

52 Letter to Baird, Feb. 2, 1883 on file at the Smithsonian Institution.
Much of Cushing's correspondence over the next three months con-
tained details of this dispute with Witherspoon.

53 Letter to Cushing, Jan. 24, 1882 on file at the Smithsonian Institution. For a brief summary of the work of Cushing in 1881, see
22-23, 26.

54 Letter to Powell, Feb. 9, 1882 on file at the Smithsonian Institution.

55 Letter to Baird, Feb. 10, 1882 on file at the Smithsonian Institution.

56 Letters to Cushing, Feb. 17 and 24, 1882 on file at the Smithsonian Institution.
to marshal some convincing arguments. It would be difficult, he told Baird, to induce one man and one woman to accompany since the chief and several caciques were already determined to go. Then, too, the railroad officials had informed him that they would not make special rates for just a few people—it had to be a party large enough "to attract patronage." Cushing now bore down hard and declared in no uncertain terms that if the Smithsonian did not "find it convenient to pay the expenses of this enterprise," he would pay them himself "rather than fail in it now." He felt sure that "the savings of more than two years and a half, even from my limited salary," would enable him to do so. 57

Repeating for Baird, Chief Clerk Pilling wrote somewhat tartly that the Smithsonian would pay the cost of all transportation that it deemed necessary. Since Mrs. Stevenson, who was in Washington, had reported that Cushing held passes for himself and his party from Kansas City to Chicago and back, the Smithsonian felt it necessary only to supply round-trip tickets from Albuquerque to Kansas City. For free transportation from Chicago to Washington, Cushing should call on General Sheridan at his headquarters in Chicago. Cushing was to confine his party to five Zuni selected by himself. A sixth Indian, the Hopi rainmaker who had been adopted at Zuni, would go also. As

57 Letter to Baird, Jan. 15, 1882 on file at the Smithsonian Institution.
Cushing might have guessed, the Hopi had been recommended by Mrs. Stevenson. 58

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58 Letter to Cushing, Feb. 8, 1882 on file at the Smithsonian Institution.
CHAPTER IV

A TRIP TO CIVILIZATION

Owl Visions

"The Owl, 'tis said in Zuni lore, --
'Can rouse a dead man's soul at night.
And make it sleep again before
The coming of the morning light.'"

"This is the reason, --so they say,
'That souls and owls are seen at night;
That with the coming of the day
Owls blink and spirits vanish quite."

I never thought this tale was true
But, musing dreamily to-night,
I found my thoughts all turn to you
Because two owlets met my sight.

F. H. C. *

The tour was to be made! The Zuni were jubilant over the prospects of such an adventure and the possibility of obtaining sacred water from the "Ocean of the Sunrise," as they called the Atlantic. Their ollas, they said, had last been filled two hundred years earlier with water from the Gulf of Mexico. Such sacred water would insure blessings on their crops for future years. Those selected to make the journey were Nai-iu-tchi, senior priest of the Order of the Bow;

* Cushing, Tenatsali's Leaves, p. 6.
Ki-a-si, junior priest of the same order; Pa-lo-wah-ti-wa, governor or political head-chief; Lai-iu-ai-tsai-lu, or Pedro Pino; Lai-iu-ah-tsai-lun-k'ia, the priest of the temple; and Na-na-he, the adopted Hopi who had been recommended by Tilly Stevenson. 1

Cushing and his party of six left Zuni on Washington's birthday, February 22, 1882. The next morning they reached Fort Wingate, where Cushing exchanged his Zuni apparel for the clothes of the white man. The Indians thoroughly enjoyed their ride on the train and were given all of the comforts offered at that time by the Atchison, Topeka, & Santa Fe. 2 In Chicago—or "Quin," as the Indians called the Windy City—they ate their first meal with knives and forks, laughing among themselves at their own efforts. They referred to their hotel as a pueblo and wondered if each of the city blocks of buildings was the home of a separate clan of Chicagoans. As they were driving through Lincoln Park in a carriage, they saw several sea-lions. Jumping from the vehicle, the Indians ran over to the side of the pool, crying: "At last, after long waiting, we greet ye, O our fathers!" Then they prayed fervently for a time, thinking the sea-lions to be animal gods of the ocean. 3

2Ibid., pp. 161-163.
3Ibid., pp. 164-165.
The Zuni governor, Pa-lo-wah-ti-wa, long remembered his visit to Chicago and especially the stop at the Palmer House where he witnessed an American dance. He also vividly recalled Miss Minnie Palmer, who had performed at the Grand Opera House in the play My Sweetheart. Nai-iu-tchi remembered Chicago, too, but not for its gaiety so much as for what he considered the benefits and blessings of civilization. He thought the circus elephant Jumbo was the most wonderful animal he had ever seen and "bigger than . . . the gods created them." For years he carried a picture of Jumbo in a little treasure box.  

On the 3rd of March Cushing wired to Baird and Major Powell that his party would reach Washington on the Baltimore & Ohio coach the next day. The arrival of the Zuni at the capital was heralded in the press. Cushing, self-conscious about his eighteen-inch long hair, obtained consent from his companions to wear it made up beneath his head band. When President Arthur met them, old Pedro Piño shook with anxiety. Tears came as he grasped the hand of "Washington." Piño was moved even more at the tomb of Washington, where he "wept uncontrollably." Too feeble to go on, Piño stayed with the Stevensons

4 Curtis, Children of the Sun, pp. 13-23.
5 Telegram on file at the Smithsonian Institution.
in Washington while Cushing escorted the rest of the party to Boston. At Boston the experiences of the Zuni were to extend beyond anything they could dream of. Their first challenge came at the Paint and Clay Club where they smoked cigarettes and held impromptu religious services over a sculptured lion. They next met the mayor of Boston and related to him the details of their journey across the land, which had been made without their feet having touched the earth. Never, they told him, could they forget the railroad. Three receptions were given them in the Old South Meeting-House, where they sang and danced for their hosts. The mayor took them to see some negro minstrels one night, and they even spent an evening at Wellesley College. Cushing was particularly delighted to have the opportunity to spend a day at Harvard where he visited the Peabody Museum. He examined some Incan articles which had defied identification. He delineated these as religious sacrificial paraphernalia and saw some relationship to those used by the Zuni. His companions agreed with him.

7Frederick A. Ober, "How a White Man Became the War Chief of the Zunis," in Wide Awake, June 1882, p. 386, and published by D. Lathrop & Co. of Boston in the same year. Frederick Albion Ober was a traveler and author with a liking for natural history. In 1876-1878 he collected birds for the Smithsonian in the lesser Antilles. He also journeyed through Mexico in 1881 to gather data for several books.

8Ibid., pp. 386-388.

A trip to the Hemenway Gymnasium coincided with the spring meeting of the Harvard Athletic Association. The field house was filled to overflowing with New Englanders who gazed in awe at the sight before them. To this time the Zuni had been a "hazy cross between a cigar-store wood eikon and a dime-novel scalp taker." Cushing stalked out from under the balconies followed by his charges, harangued the crowd, and then led the Indians in a strange ceremonial dance. Some said this was the only event of the day remembered. At least one who knew Cushing well said that this was the "cleverest thing . . . ever . . . devised and carried out by a scientific student anywhere." The performance was a prelude to Cushing's attempt to find financial backing in Boston--and in this he was to be remarkably successful.

When the Indians first saw the Atlantic Ocean from a high Boston building, they were dazed by the vast waters. Zuni mythology regarded the ocean as the habitation of their great ancestral gods. Their annual offering to the gods of a few drops from the ocean supposedly would bring showers for their crops. Their anticipation as they moved closer to the ocean became great, for they felt they were approaching their most important deities. In order to prevent large crowds from forming to disturb their rites, the ceremony was scheduled

10 Charles Fletcher Lummis, "The White Indian," Land of Sunshine, June 1900, p. 11.
11 Ibid., p. 8.
to take place on Deer Island, a small strip of land in the harbor which belonged to the City of Boston. Here no one could land without a permit.

On March 29, the steamer J. Putnam Bradlee, hired by the mayor and loaded with special guests, sailed down the harbor to Deer Island.

Sylvester Baxter, who was a member of the party, noted the emotion displayed by the Zuni as they waited in the pilot-house for the voyage to end. They prayed, sang songs, and scattered over the ocean their consecrated meal of pounded shells, sand, and corn-flour. Cushing, who had boarded in the most fashionable of Boston clothes, went below deck and dressed in native costume. 12

On the beach the Indians put up two tents and went inside to prepare themselves for the rituals. Soon they came out, went to the water's edge, and performed their rites. The ceremonies completed, they filled their gourds, vases, and demijohns with water for future use. Cushing was then initiated into the first degrees of the order of the Ka Ka by being baptized with sea-water and plastered upon the head with mud. This supposedly completed his introduction into the order,

though certain ordeals yet faced him on his return to Zuni. Cushing was regarded by the Indians as the hero of the day, for he had brought them to the great ocean. It was later learned some two hundred persons had witnessed the ceremonies from the main shoreline.¹³

Cushing now was the toast of Boston, Philadelphia, and Washington. His Zuni were sought after by clubs and societies. On April 22 Cushing presented his Indian friends before the National Academy of Sciences in Washington and lectured on "Zuni Social, Mythic, and Religious Systems." So well-received was the lecture that it was immediately published.¹⁴ In May he delivered a paper called "Life in Zuni," before the fifty-seventh regular meeting of the Anthropological Society of Washington but could not complete his reading due to the hour of adjournment. A special meeting was called on May 23 by popular request in order that he might finish the paper. Cushing described the topography of Zuni and the mode of life and habits of the tribe. The Indians sang their best songs and danced in costume, and Cushing took part in the program as well. Discussion from distinguished anthropologists present completed a very entertaining evening.¹⁵ Still later


another of his addresses appeared in print and delighted popularly-oriented readers because of its unusual nature.  

On the cloudy afternoon of June 10, 1882, the Cushing entourage took another journey for religious purposes. At three o'clock the ethnologist and his Indians crowded into a carriage and drove to a secluded spot in the woods one-half mile north of Washington. Here, in a pouring rain, they walked in single-file up a muddy lane, and after a long search finally located an anthill where they burned cornhusks and chanted ritual songs. The ceremony concluded, the Zuni ran back to their carriage and a crowd of soaked spectators followed them into the city. But not all of Cushing's time was devoted to such outdoor festivity. During most of the month of June he worked at his desk in the Smithsonian, arranging his voluminous field notes and other papers and preparing reports for publication.  

One of Cushing's prime motives in going on tour had been his desire to escape marriage to a Zuni maiden. In July, 1882, he introduced his Indian companions to Miss Emily Tennison Magill of


Washington. The Zuni were so taken with her that they urged Cushing to marry her at once. He was told by the governor that he must not go back to the Zuni pueblo without his bride. The wedding may have been a quiet ceremony, for Cushing failed to write of it. His mind appeared to be entirely on his work. Early in July he had notified Baird that he wished to depart soon for New Mexico, and now pressed for more financial aid with which to pursue his studies. He reminded the Secretary that his funds were limited and that he needed money for the return trip. He would be paid in the fall, he said, for articles he had written for Century and Atlantic magazines. Could he, therefore, have an advance in cash of $225?

Late in July Cushing was again prostrate with illness. The last week of the month he spent in bed, unable to get to the Smithsonian or to do much work in his room. Somehow he was able to prepare a few reports for the Bureau of American Ethnology, finish a manuscript on linguistics, and set forth his desiderata for the continuance of his work at Zuni. While he was still sick he received a letter which did little to make him feel better. It came from Galen Eastman, the Navajo agent at Fort Defiance, who demanded one hundred dollars in

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19 Curtis, Children of the Sun, p. 39. Emily was the daughter of a banker who was for many years with the house of Lewis and Johnson of Washington. Her sister Margaret would later marry Frederick Webb Hodge.

20 Letters to Baird, July 8, 1882 on file at the Smithsonian Institution.
the name of that tribe for horses which Cushing was charged with shooting. Eastman earlier had complained of this in a letter addressed to "The Teacher at Zuni Pueblo," S. A. Bentley, who long had been Cushing's enemy. Lieutenant Cushing," Eastman charged, had been seen shooting twice with a pistol into a bunch of Navajo horses. The trails of the blood of two horses had been followed, but a third horse had not been found. The Navajo agent now demanded restitution.

In his lengthy reply Cushing admitted to firing not twice but three times, but insisted that he was justified in the action because he had asked repeatedly that the Navajo keep their horses out of "our territory." The Navajo, he added, had often killed or stolen Zuni horses. Not to be outdone in a duel of words, Eastman sarcastically addressed his next letter to Cushing as "1st War Chief of Zuni and U. S. Asst. Ethnologist." Cushing had taken the law into his own hands, the agent declared, and the Navajo had suffered as a result of his personal code of reprisal. Eastman then reported the incident to the Commissioner of Indian Affairs and asked the Department of Justice to obtain

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22 Letter of Eastman to Cushing, July 20, 1882, Ibid., p. 137.


restitution. The outcome of the affairs remains in doubt, for here the correspondence ended abruptly.

Cushing now conceived the idea of taking his bride and his Indian companions to visit his old home in western New York. Needing money, he asked Major Powell to expedite his salary vouchers—and then contributed to his own poor state of financial affairs by mislaying the vouchers! In desperation he begged Powell to take his word that the vouchers had been certified and sent to the Bureau. Determined to see his old home again, he arranged to give public lectures at New York City and at several towns enroute. Early in September he, his wife, and his Zuni charges visited the Tono-Wanda reservation of the Seneca Iroquois and were formally greeted in a three-hour speech by the grand sachem.


26 The incident has been reconstructed by Arthur Woodward in "Frank Cushing--First War-Chief of Zuni," The Masterkey, vol. 13, no. 5 (September 1939), pp. 172-179. See also Frank D. Reeve, "The Government and the Navajo, 1878-1883," New Mexico Historical Review, vol. 16, no. 3 (July 1941), pp. 275-312.

27 Letters to Baird and Powell, July 21 and 24, 1882 on file at the Smithsonian Institution.

28 Letter to Powell, Aug. 31, 1882 on file at the Smithsonian Institution.

29 Draft of Cushing's annual report to the Bureau of American Ethnology for the year ending June 30, 1883 in File No. 2427a at the Smithsonian Institution.
Senecas welcomed his party in the council hall, Cushing reported to Powell, and then the grand sachem entertained them at his house. Cushing, his wife, and all the Zuñi were adopted into the Seneca tribe.

Some of his Zuñi companions were now complaining that they did not feel well, and Cushing let them rest for a few days while he visited at his old home. In mid-September the party entrained for Chicago, and early in the next month they reached New Mexico. Cushing's wife Emily had brought her sister Margaret along, and Margaret quickly proved the more adaptable of the two. Emily had been willing to leave her fine home in Washington to go with Cushing to a mud hut at Zuñi, but she did not pretend to enjoy her life there and apparently hated the sight of the "uncouth" women and the naked children. Margaret, on the other hand, seemed to like the Zuñi way of life and even talked at times of assuming their dress and of joining the tribe. Despite her personal feelings, however, Emily tried to make a comfortable home for her husband. She covered the walls with brightly-colored blankets and the floor with tanned sheepskins, and attempted to decorate the room with various forms of Indian art.

30 Letters to Powell, Sept. 19, 20, 1882 on file at the Smithsonian Institution. The question as to whether Mrs. Cushing was adopted as a "brother" is a moot one, but it is so indicated in this correspondence.

31 Letter to Powell, Sept. 12, 1882 on file at the Smithsonian Institution.
There was little hard work for the ladies to do since Cushing had hired a colored man as a cook and "maid of all work."\(^{32}\)

The raimant in which Cushing appeared on public occasions in the East was spectacular enough to be exploited by the press. His colorful dress played on the imagination of reporters whose stories exhibited the ethnologist as a very peculiar person. Yet Cushing always insisted that his only purpose in wearing such a costume was to enable him to stay on the most intimate terms with the Indians. Among them—whether at the Zuni pueblo or in the settlements or at the military posts—he usually wore a blue blouse which was embroidered on the shoulders, down the front, and across the waist, and hung with many small silver buttons. Around his neck he had a heavy chain made from silver coins, hammered down and then engraved. His buckskin belt was studded with silver hammered out of American dollars. His knee-length trousers, colored woolen garters, and buckskin anklets were likewise richly embroidered and hung with silver ornaments. Across one shoulder was a fringed strap, also embroidered, which supported a quiver holding arrows.\(^{33}\)

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\(^{32}\) Curtis, *Children of the Sun*, pp. 15-16.

\(^{33}\) The historian Arthur Woodward has described Cushing's costume as essentially of European origin, an example of the Spanish frontier dress of the late eighteenth century. "Frank Cushing—First War Chief of Zuni," pp. 172-74.
When he joined the Zuni on forays, Cushing always went out in full war dress with a bow and a brightly colored horsehide shield. On one point, however, he resisted native custom as long as he could. He had no desire to have his ears pierced. Finally, however, he accepted the fact that this was essential to his prestige and necessary for certain rituals in which he would play a part. In the governor's house, in a short ceremony accompanied by music and chants, a Zuni dancer hovered over him, making a number of false passes. Suddenly, when he least expected it, his ears were grasped and pierced through. At this moment the ethnologist assumed his new name of Te-na-tsa-li, or Medicine Flower.  

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34 Curtis, *Children of the Sun*, pp. 31-34.
CHAPTER V

TILTING WITH A SENATOR

Be Patient, My Soul

Be patient, my soul, oh be patient!
Did not the dark clouds dim the sun
Before the storm's fury was done?
Yet the shadow was 'but evanescent,
For 'twas light ere the calm had begun

I know not how long I may wait thee,
Glad fortune with joy in thy works;
I know how long it will take,
But I pray hope may never forsake me
No matter how long I may wait.

No matter how dark it is, ever;
The stars shine above, or below
E'en a worm in our pathway may glow
Let it teach me that like them, endeavor
Will shine, whether lofty or low.

F. H. C. *

Once back at Zuni, it did not take Cushing long to plunge again
into his investigations. His report for the month of October, 1882,
contained new details on Zuni dances and ceremonials, vocabularies,

* Cushing, Tenatsali's Leaves, p. 7.
and ceramic decorations. Early in the next month, under direct orders from Major Powell, he set out for the Hopi village of Oraibi to take charge of a party instructed to collect ethnological materials for the Bureau and the National Museum. He joined the party at Keams Canyon on November 5, but then decided to push ahead with several Indian companions. A snow storm halted them temporarily, but within a few days Cushing had made the initial contacts at Oraibi. This accomplished, he returned via Keams Canyon and Coyote Springs across the country to Zuni and on the way found three "important" ruins intact.

On December 5 Cushing again left for the country of the Hopi, going by way of the Rio Puerco Valley toward Holbrook on the Atlantic & Pacific Railroad. He was accompanied by the artist Willard L. Metcalf, a few Zuni, and Na-na-he, the adopted Hopi who had made the eastern tour. Na-na-he was to serve as interpreter. Cushing may not have known it at this moment, but Na-na-he was in disgrace among the Hopi. Upon his return from the East, he had hurried to his old home in Arizona and had told of the wonderful harvest enjoyed by the Zuni as a result of their pilgrimage to the Ocean of the Sunrise.

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1 Monthly Report for October, 1882, on file at the Smithsonian Institution.
2 Monthly Report for November, 1882, on file at the Smithsonian Institution.
He had made the mistake of promising the Hopi some of the sacred water brought back by the Zuni in their demijohns, and a delegation of Hopi came to receive the gift. But the Zuni, unwilling to share the sacred water, told the Hopi to go to the Ocean of the Sunrise and get some for themselves.  

When Cushing's party arrived at the camp of the U. S. Geological Survey, Major Powell himself was there to greet them. Cushing was instructed to draw up invoices for the purchase of materials to be traded to the Hopi and the supplies needed for the trip to Oraibi. Victor Mindeleff was put in charge of the expedition. At Oraibi the party was at first encouraged to trade their goods for Hopi crafts, but then a group of medicine men excited the whole population of the village by shouting that these white men were intruders. The party was ordered to leave the village before daylight on threat of death if they refused.

Insulted and intimidated, all the white men except Cushing fled when the Hopi council violently broke up its meeting. On the pretext of having no transportation by which to leave, Cushing delayed, and sent one of his Zuni to Keams Canyon for wagons. He then secretly secured

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3 Sylvester Baxter, "Zuni Revisited," *The American Architect and Building News*, vol. 13, no. 377 (March 17, 1883), pp. 124-126. This was a paper read before a meeting of the Boston Society of Architects.

4 Memorandum to Cushing, Dec. 13, 1882 on file at the Smithsonian Institution.
a collection of some two hundred pieces of ethnological material.

Cushing and his Zuni left Oraibi on December 24 and met the rest of the party at an arroyo near Mishongnovi. From here they departed on January 19, but snow storms and wagon breakdowns delayed them and they did not reach Zuni until the last day of February. 5

While Cushing was busy at Oraibi, another storm was blowing over his head. He had been involved in many controversies by this time, but never one with so formidable an antagonist as Senator John A. Logan of Illinois, a Civil War hero and one of the most powerful politicians in the United States. 6 During Cushing's absence in the East in 1882, Senator Logan and his son-in-law, Major William F. Tucker, 7

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5Monthly Reports for December, 1882, and January, 1883 on file at the Smithsonian Institution. In "Contributions to Hopi History, " American Anthropologist, n. s., vol. 24, no. 3 (July-September 1922), see Cushing's "Oraibi in 1883, " pp. 253-298. The manuscript of his report of the trip to Oraibi in the winter of 1882-1883 came into the possession of Stewart Culin, of the Brooklyn Museum, by gift of Cushing's wife shortly after his death. The manuscript went subsequently to Frederick Webb Hodge, who asked Elsie Clews Parsons to edit it for publication. See also "The Origin Myth from Oraibi, " Journal of American Folk-Lore, vol. 36 (1923), pp. 163-170, which was recorded by Cushing during the visit to Oraibi.

6John Alexander Logan (1826-1886) had been a lieutenant in the Illinois volunteers during the Mexican War and a major-general of volunteers during the Civil War. He then served in the House of Representatives and was one of the House managers in the impeachment proceedings against President Johnson in 1868. From 1871 to 1877, and from 1879 until his death, he served in the Senate, and in 1884 was the Republican nominee for the vice-presidency.

7William Francis Tucker, a graduate of West Point, received the rank of major early in 1882. Years later he became Deputy Paymaster General of the United States Army. Heitman, Historical Register..., vol. 1, p. 973.
had made a brief visit to the Zuni pueblo. Logan questioned the Indians about Cushing, posing his queries through a young female interpreter who understood little if any of the native tongue. Logan asked the Indians if they knew that the articles which Cushing was writing for the Century magazine were false. He then implied that Cushing's reports to the Smithsonian Institution were also erroneous, and apparently some of the Zuni agreed with the interpreter that this was so. Armed with such evidence, Logan then launched a campaign to show Cushing as an imposter. 8

Within a short time the Boston Herald printed a story, alleged to have originated in Santa Fe, which stated that certain claims had been located on the Zuni reservation by army officers. The article inferred that both Logan and his daughter's husband were involved in the scheme. The New York Times quickly reported that Logan had taken steps to get possession of the springs at Las Nutrias and to establish a cattle ranch nearby. These springs, the story noted, were thought to be on the reservation, but new surveys showed this not to be the case. 9

Late in December of 1882 Cushing's old rival, James Stevenson, reported to the officials of the Smithsonian that he had just held a

8Curtis, Children of the Sun, pp. 53-55.

9Ibid., pp. 49-50.
conversation with Logan and that the Senator had referred bitterly to
the article in the Boston Herald. Logan was sure that Cushing had
instigated the article and seemed so incensed as to require some
drastic action on the part of the Smithsonian Institution. 10 The next
day Baird wrote to inform Cushing that Logan was extremely irate over
the newspaper story. The Secretary asked for an "authoritative denial"
of Cushing's alleged role "so that I may show it to the General . . . ."
Baird closed with a warning: "You, of course, are sufficiently aware
of Gen. Logan's character--that he is indomitable and relentless; and
while he is a most valuable friend, he is a very dangerous enemy." 11
Cushing responded immediately with an emphatic denial that he had
written the article or had any knowledge whatever of it. He regretted
that such a thing should have been published, and expressed only the
highest admiration for the Senator. In the past, Cushing said, much
of the criticism heaped on him had been in censure of his character and
his intentions, and therefore he deemed it beneath his dignity to enter
openly or covertly into any such newspaper controversies. 12

However strenuous his disclaimer of personal involvement,
Cushing certainly did not agree that the lands of the Zuni were open to

11 Letter to Cushing, Dec. 23, 1882 on file at the Smithsonian Institution.
12 Letter to Baird, Jan. 3, 1883 on file at the Smithsonian Institution.
homesteaders. Nor is it remarkable that Sylvester Baxter of the Boston Herald and William E. Curtis of the Chicago Inter-Ocean, both friends of Cushing, now took up the defense of the Zuni. Baxter had been to Zuni to see Cushing a second time in November of 1882, and later wrote at some length about this trip. The situation at Las Nutrias was well-known to the press, therefore, and it was no secret that certain army officers close to Senator Logan were interested in the possibilities of the area.

The boundaries of the Zuni preserve had been fixed by an executive order of President Hayes in March, 1877, in accordance with a description provided by Indian Agent Ben M. Thomas. This description, through an error, had left out the farming village and springs of Las Nutrias, which had been occupied by the Zuni for generations. The village of Las Nutrias comprised about sixty houses and several corrals. Around the village the Indians had much good pasture, and the cultivated portions of the land were fenced. In this fertile soil the Zuni raised wheat, corn, garlic, chili peppers, onions, and assorted vegetables. The purpose of the executive order was to exempt Zuni lands from the large grant which Congress had given to the Atlantic &
Pacific Railroad. Agent Thomas, the officers at Fort Wingate, and all the Zuni had taken it for granted that Las Nutrias was to be included in the exemption.

There had been no review of the Thomas survey, and the error stood uncorrected. When it was finally discovered, Major Tucker and Captain Henry W. Lawton of Fort Wingate, along with a civilian, quickly filed claims in the Las Nutrias Valley. Each man filed for 160 acres under the Homestead Act and 640 acres under the Desert Land Act. The Zuni learned of this only when the three men arrived at the springs and announced their intention of starting a cattle ranch. After the excited Indians had held several councils, they appealed to Cushing for help. Their white war chief promised that he would try to present their case for them, and on April 12, 1883, Agent Thomas sent an explanation of his mistake to the authorities in Washington. President Arthur's executive order of the 1st of May corrected the boundaries of the Zuni reservation to include the Las Nutrias Valley.

Senator Logan now wrote an indignant letter to the press. He denied a personal interest in the Las Nutrias Valley, but defended the

16 Henry Ware Lawton had risen from the ranks in the Civil War and was breveted several times for gallant and meritorious service. At the time of his death in the Battle of San Mateo, Philippine Islands, in December, 1899, he was a major-general of volunteers. Heitman, Historical Register . . . , vol. 1, p. 620.

17 Curtis, Children of the Sun, pp. 43-46.
rights of his son-in-law and praised the war record of Captain Lawton. The Indians, he said, already had more than enough land. If a civilized white man could get only 160 acres by paying for it and an Indian could get more than 1,000 acres without paying for it, then the white man had better adopt the Cushing plan and become one of the Zuni. It was his intention, he said, to appeal the President's restoration order. 18

In taking a position on the Las Nutrias question, Logan exposed a flank. His numerous political enemies soon began to attack him with the cry of "land grabber." More and more the Senator blamed Cushing for these censures, and his bitterness culminated in a threat to Major Powell to crush the infant Bureau of American Ethnology unless Cushing was removed at Zuni. 19 Cushing remained silent throughout the storm. About this time the Swiss-born anthropologist and historian, Adolph F. A. Bandelier, was conducting researches in the Southwest for the newly organized Archaeological Institute of America, and his explorations on foot and on muleback brought him occasionally into contact with Cushing. Bandelier observed that Cushing was "somewhat exercised" over the Logan affair, but was attending to his work with customary diligence. 20

18Curtis, Children of the Sun, pp. 50-52.


When the President's favorable ruling was made known to them, the Zuni were jubilant. They sent for Cushing and asked him to write expressing their gratitude. The message concluded with these words:

Thank you, our father. May the sun of all summers that number your years find you as happy as were your Zuni children when they listened to the words of you and your chiefs--words which sounded to their ears and to their hearts as beautiful as to the eyes look a vale of flowers. -- Nai-in-tehi.  

But Captain Lawton had chosen to disregard the executive order of May 1, 1883, and the following October he attempted to take up land at Las Nutrias. The Land Office in Santa Fe denied his entry. Lawton appealed, and the matter remained unresolved until March 3, 1885--President Arthur's last day in office--when a new executive order was issued. It amended the prior one by excluding "from the addition made to the Zuni reservation ... all lands which were at the date of said order May 1, 1883 settled upon and occupied in good faith under the public-land laws of the United States." Senator Logan apparently had won at last, but his victory was short-lived. The Indians protested vigorously through their agent, declaring that the new ruling took from them valuable agricultural land which they had occupied and tilled for

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21 Cushing, "My Adventures in Zuni," p. 18, and a translated letter on file at the Southwest Museum.

more than a hundred years. In November, 1885, the Commissioner of the General Land Office ordered the cancellation of all claims and entries on the Zuní reservation.

So far as it concerned him directly, Cushing recorded his feelings regarding the Logan affair in a strange "interview" with himself in June of 1883. It was not unusual for Cushing to write in the third person as most of his monthly and annual reports were in such form, but the manuscript of this "interview" was a curious product indeed. Possibly it was written for the use of his newspaper friends, Baxter or Curtis; possibly it was meant as nothing more than an intellectual exercise. In any case, the penmanship was unmistakably Cushing's own. The "interview" opened with a statement by the "writer" that "it would be well to visit Zuní and interview Mr. Cushing, with whom I have been acquainted...." The questions then put to Cushing brought from him straightforward answers on the facts of Zuní occupation of the Las Nutrias Valley. The "writer" found Cushing to be "sincere in his motives, honest in his assertions, and in spite of his undeniable but voluntary and acknowledged 'degradation' to have retained fully his moral character and his self respect...." Sounding Cushing with

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respect to his attitude toward Senator Logan, the "writer" found the
ethnologist remarkably free from animosity. So fair-minded was
Cushing that the "writer" could not help but be a little sad that this
upright man had suffered from such unfair treatment. 25

25 Manuscript of an "interview" dated June 9, 1883, at Ojo del Coyote,
Valencia County, Territory of New Mexico, on file at the Southwest
Museum. There remains the possibility, of course, that this manu-
script in Cushing's hand was merely a copy he made of an actual inter-
view with some reporter. Since no evidence of such an interview has
been found in print, however, it seems likely that Cushing held this
conversation with himself.
CHAPTER VI

FAREWELL TO ZUNI

The Magic Mirror

The spider spins his viewless weir
in leafy blooming bowers;
At night the Dew-god, stealing near.
To spray the sleeping flowers,
Pays toll with half his showers.

Then, when the sun first lights the sky
How gleams the artful weaving
With seeming treasure--so the fly
Thinks of the scene deceiving
And caught is in believing.

Thus, in some sunny nook, I trow
When autumn leaves are turning,
The golden web above thy brow,
With magic glamor burning
Will wile a youth to yearning.

F. H. C.*

Even though his altercation with Senator Logan did not result in Cushing's removal from Zuni, the year 1883 was to be his last full one among his beloved Indians. Throughout that year he was plagued with troubles which put both his reputation and his health in constant jeopardy. It was finally his failing health that brought Cushing's residence at Zuni to an end, but doubtless the decline in his vigor was

*Cushing, Tenatsali's Leaves, p. 9.
accelerated by the complex of problems and disappointments which had come to harass his sensitive spirit.

Next to the dispute with Senator Logan, the most serious of Cushing's difficulties in these months arose from a complaint to the officials of the Smithsonian from Dr. Sheldon Jackson, the eminent Presbyterian churchman and missionary leader. In a letter to Baird, Jackson charged that "your collector at Zuni" had thrown his considerable influence against the Indian school there. Cushing, the irate missionary declared, was pandering to the lowest passions of the Indians and was, by example, sanctifying their paganism. He asked Baird to recall the ethnologist and send another to take his place. It was fortunate for Cushing that Jackson's letter was more petulant than substantive. Baird and Major Powell finally dismissed the complaint as crankish.

Another annoyance concerned a "lost" horse. For a brief trip to the Hopi villages in the spring of 1883 Cushing had borrowed horses from the Zuni. One of the animals became sick and had to be left in the care of Commodore Perry Owens, the long-haired sheriff of Apache County, who reported soon afterward that the horse was missing. As he so often did, Cushing paid for the loss out of his own funds. In this

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1 Letter to Baird, Dec. 22, 1882 on file at the Smithsonian Institution.
case he gave sixty-five dollars to the Indian who claimed ownership of the animal.²

In order to relieve his chronic financial distress, Cushing now sought appointment as postmaster at Zuni. He was shrewd enough, however, to ask if it were legal and proper for him, already a federal employee, to hold such a position. Would it be consistent with his regular position for him to assume the duties of postmaster, and would the Post Office Department be willing to establish semi-weekly or weekly mail service between Fort Wingate and Zuni at a cost of $2.50 to $3.00 per trip? Since the mail of the white residents of Zuni—the missionary, the teacher, the trader, and others—was mainly "official," Cushing would be willing to provide all services necessary to eliminate the problems that had been encountered in the past as a result of haphazard methods of transporting the mail.³ Within two weeks he had his answer: the Postmaster General had decided not to establish an office at Zuni, as the expense would exceed the receipts.⁴ Cushing then forwarded a petition signed by seventeen persons who agreed with him that a postmaster should be appointed at Zuni, but

²Letter to Powell, May 21, 1883 on file at the Smithsonian Institution.

³Letter to Powell and Baird, May 23, 1883 on file at the Smithsonian Institution.

⁴Pilling to Cushing, June 9, 1883 on file at the Smithsonian Institution.
finally he concluded that all the paperwork would not be worth the pay he would receive. The matter was dropped.

It had become disturbingly apparent, in any case, that paperwork was not to Cushing's taste. The clerical staff of the Smithsonian found it necessary to exert steady pressure to get from him the necessary vouchers, purchase orders, and routine forms. Even when he was in good health Cushing could not bring himself to attend promptly to these details, and when ill he neglected them altogether. As it happened, Cushing was ill during much of the year 1883. In March, while returning from another trip to the Hopi villages, he was kicked severely in the thigh by a mule. This injury kept him confined for some days, during which time he contracted a case of pneumonia which put him in bed for several weeks.

Cushing's convalescence was not altogether barren. In the middle of March he was visited by Adolph Bandelier, who walked the thirty miles from Fort Wingate to spend a few hours in conversation with a co-worker whom he had come to admire extravagantly. Cushing laid his research materials before Bandelier and let the older man

5 Letter to Pilling, July 4, 1883 on file at the Smithsonian Institution.

6 Letters to Pilling and Powell, Feb. 3, 1883; to Pilling, Mar. 6, 1883; and Pilling to Cushing, Feb. 15, 1883 on file at the Smithsonian Institution.

judge for himself the validity of the conclusions. Bandelier was firmly of the conviction that the only way in which ethnological research could be conducted successfully was by prolonged and intimate contact with the native people under study. The fact that Cushing was in his fifth year among the Zuni evidently impressed the Swiss-born scientist.

"My opinion of him," Bandelier wrote three days later, "is that he is the direct successor to Mr. [Lewis Henry] Morgan in the study of Indian life, and that he has finally revealed the last secrets of their organization." Cushing's superiors, Bandelier thought, should be proud of this remarkable young man whose work at Zuni was so fully developed. "I go out of New Mexico," Bandelier exulted, "with a much lighter heart than I could ever hope. . . ."

Another anthropologist with whom Cushing was able to enjoy a stimulating conversation in the spring of 1883 was Herman F. C. ten Kate. Late in April Cushing was asked to come to Santa Fe to deliver an address at a tertio-millenial celebration. He was not yet fully recovered and felt that he should not take time out from his work, but his Zuni charges wanted to go to Santa Fe and insisted that he lead them. Their motive was to convince the territorial officials to give

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8 As in F. W. Hodge, "Biographical Sketch and Bibliography of Adolph Francis Alphonse Bandelier," New Mexico Historical Review, vol. 7, no. 4 (October 1932), p. 357. Bandelier felt that Cushing was the only American ethnologist who saw beneath the surface of Indian life and therefore could think as an Indian thought.
them a militia for protection against hostile white men and horse
thieves. Cushing apparently was not averse to this idea and thought
of himself as the logical captain of such a company of militia. As it
happened, Cushing did take a party of Zuni headmen to the celebration
in Santa Fe, but nothing came of their proposal for a militia. Following
the festivities, Cushing and his Indians visited Albuquerque. Here
he met ten Kate, a young Dutch scientist whose interest in the Zuni was
immediately kindled. Ten Kate long remembered this meeting and
later spoke with great enthusiasm regarding it. Never, ten Kate said,
did he learn more than on that day, for he was taught to see native
peoples as Cushing saw them and to interpret by Cushing's system of
reasoning.

Early in June Cushing fell ill again after another field trip,
and Mrs. Cushing had to write to Major Powell to explain why her

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9Letter to Powell, Apr. 19, 1883, and letter to Cushing, May 1, 1883
on file at the Smithsonian Institution.

10Ten Kate, born in The Hague, died in Carthage, North Africa, in
1931. See Jac Keyink and F. W. Hodge, "Herman Frederick Carel ten
Kate," American Anthropologist, vol. 33, no. 3 (July-September, 1931),
pp. 415-418, for an account of his eventful career. See also Anon.,
"Ten Kate's Explorations in Western America," Science, June 12, 1885,
p. 485.

11Adolph F. A. Bandelier, The Gilded Man (New York: D. Appleton,
1893), pp. 153-157; and "In Memoriam: Frank Hamilton Cushing,"
American Anthropologist, n.s., vol. 2, no. 4 (October-December,
1900), pp. 768-771.
husband had not submitted his vouchers and reports. After Cushing had been prostrate for some days, Dr. Washington Matthews arrived from Fort Wingate and diagnosed his condition as caused by bad water and by debility resulting from long-continued dyspepsia. The doctor suggested that his scholarly friend take the time to come to Fort Wingate for medical examinations as often as possible. As Cushing could not gather the strength to write, he passed the days in avid reading. Asking for more works on sociological and governmental subjects, he returned two books, *The Great Oasis* and *The Libyan Desert*, to the Smithsonian. His superiors were pressing for a full report on Zuni sociology, but Cushing explained that his illness now made it impossible for him to prepare thoughtful synthesis. He had been criticized by the newspapers, he said, and did not wish scientific or literary men to have an opportunity to verify that criticism because he hurried his work. He was indeed eager to produce, but he needed time to do further preliminary reading.

By the end of August Cushing was able to sit at his desk for short intervals, but he was unable to get beyond routine work. His

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12 Letter to Powell, June 5, 1883 on file at the Smithsonian Institution.
13 Letter to Powell, June 17, 1883 on file at the Smithsonian Institution.
14 Letter to Pilling, July 4, 1883 on file at the Smithsonian Institution.
15 Letter to Pilling, Aug. 20, 1883 on file at the Smithsonian Institution.
superiors waited graciously for his promised reports and made it clear that they expected no product at the expense of his health. But Cushing's health did not improve. He remained weak and listless, and with the approach of autumn he fixed his attention on what he imagined to be the cause of his lingering illness. As Dr. Matthews had diagnosed his malady as due largely to unhealthful surroundings, Cushing determined to enlarge his living quarters. An addition would have to be made to the one small room he had purchased a year earlier. He would willingly throw himself into debt, he told Powell, to get this much done. Adobe could be made at the site, and the masonry would cost no more than two hundred dollars. Could the Bureau therefore send one hundred and fifty dollars to help him to add a room? After all, he wrote plaintively, he had been able to proceed with his work at Zuni only because he had sold articles to Century and Atlantic Monthly and had received financial aid from "liberal and kind patrons in New England." 

Cushing's petulance was enough to irk his superiors at the Smithsonian, and their displeasure may have been one reason for the absence of communication between Zuni and Washington for the rest of the year. Cushing went ahead with his building project, however slowly, and late in January of 1884 he sent Powell an elaborate description of  

16Letter to Cushing, Sept. 8, 1883 on file at the Smithsonian Institution.  
17Letter to Powell, Aug. 20, 1883 on file at the Smithsonian Institution.
what he had accomplished. The report scarcely could have delighted the Major. The commodious house which Cushing had erected was certainly not the one-room addition that he had projected! He had misjudged prices, Cushing admitted, for the house already had cost him $697 in cash and he still owed $412—despite the fact that he had done all the carpentry with his own hands. Now that he was settled in new quarters, however, his health was bound to improve! What he badly needed now was a loan from the Bureau or an advance on his salary. "I regret," he said cryptically in closing, "that if by building (under the impression that I could monograph Zuni and live to do it) I made a mistake." 18

Powell's store of patience was exhausted. On March 21, 1884, he wrote the order which ended Cushing's five-year tenure as ethnologist at Zuni. The Major's words were careful and noncommittal: it was simply "found expedient to recall Mr. Cushing to Washington." 19 Cushing received the fateful order, along with drafts for funds, on March 29, and made arrangements to leave from Fort Wingate on the Atchison, Topeka & Santa Fe on the 31st. His departure was delayed, however, by heavy rains and the miring of several wagons in the mud

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18 Letter to Powell, Jan. 29, 1884 on file at the Smithsonian Institution. Cushing's meaning here is not altogether clear, but probably the remark was meant to be caustic. Earlier in the letter he reminded Powell pointedly that the Major had neither approved nor disapproved his plan to build adequate living quarters at Zuni.

THE BUILDING WHICH CUSHING ERECTED AT ZUNI LATE IN 1883.

Considerable additions have since been made to the structure, and a number of ethnologists lived in the house after Cushing moved out. Photograph courtesy of Dr. Robert C. Euler and Frank E. Wilson, 1964.
on the road to Fort Wingate—and by an acute attack of pleurisy which put him to bed. Expressing thanks to Powell for this chance to visit and rest in the East, Cushing assured the Major that he would be away from Zuni by the 1st of May at the latest. On the 26th of April he wired Powell from Albuquerque that he was entraining at 11:30 that evening. Back at Zuni his friends and "relatives" were weeping, for they had no expectations of ever seeing their Medicine Flower again.

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20 Letter to Powell, Mar. 30, 1884 on file at the Smithsonian Institution.

21 Telegram to Powell, Apr. 26, 1884 on file at the Smithsonian Institution.

22 According to the dean of American anthropologists, Alfred L. Kroeber of the University of California, Cushing's residence at Zuni between 1879 and 1884 set the foundations for ethnological study in the Southwest. See his "Native Culture of the Southwest," American Archaeology and Ethnology, vol. 23 (Berkeley: University of California Press, 1926-1928), p. 375.
CHAPTER VII

A NEW ADVENTURE BECKONS

A Correspondence

A perfect vessel always rings
A pretty echo of all things
That sound within its region.

Yes, echoes--as a perfect mind
In all circumstances will find
A sweet and noble reason.

F. H. C.*

Late in the evening of April 29, 1884, Cushing and his wife stepped from a coach of the Baltimore & Ohio at the railway station in Washington City. He had promised Major Powell that he would be out of New Mexico by the 1st of May, and for once he could take satisfaction in the fact that he had beaten his own deadline. His health, however, was still uncertain, and for the next month he rested in the house which he had rented at 1507 Rhode Island Avenue. Evidently Powell did not press him to report for duty, for not until early June was the ethnologist at his desk in the Smithsonian.

*Cushing, Tenatsali's Leaves, p. 2.

1 Telegram to Powell, Apr. 29, 1884 on file at the Smithsonian Institution.
A mountain of mail, much of it in the nature of inquiry from curiosity seekers and amateur ethnological collectors, awaited him, and over the following six months Cushing did little else than to attend to such correspondence. Irksome as it was, the incoming mail to the infant Bureau of American Ethnology could not be ignored. Public support, as Major Powell fully realized, was essential to the growth of the Bureau, and the Major was not oblivious to the need for satisfactory public relations. Perhaps for this reason, therefore, Powell made no evident attempt to direct Cushing's activities into more productive channels, though it is certain that the chief of the Bureau wished ardently that his bright young ethnologist would finally get to work on a comprehensive report. Doubtless Cushing himself wanted to get down to serious writing, for in December he confided to Francis Parkman, his eminent friend in Boston, that in the coming year he meant to publish a good deal. Further, he noted triumphantly, he would be speaking before the American Geographical Society at its annual meeting on January 13, 1885.2

Certainly Cushing enjoyed such recognition, and within a few months of his return he was getting a full diet of it. By now he had become something of a celebrity. The "First War Chief of the Zuni" found himself much sought after, but not always by the right people.

2Letter to Parkman, Dec. 11, 1884 on file at the Massachusetts Historical Society.
Never one to shun publicity, Cushing nonetheless was quite careful in his dealings with eager journalists and promoters who frequently offered him money in return for testimonials on their products. Most of these overtures he successfully fended off, but one curious publication found its way into the bookstalls. A testimonial to a patent medicine, this was a pamphlet of thirty-two pages bearing the title, "Frank Cushing's Story: How the Great Indian Sagwa Saved the Life of the Famous Ethnologist." It related how, in 1879, the young man, "his face . . . sallow and expressionless, his legs and arms of a skeleton," bid his friends goodbye and set out for the West. None expected him to return, thinking that surely he would meet his Maker under the sod of some distant settlement in a rude coffin. Then, so the tale went, Cushing returned to the East after five years, so rejuvenated that his old friends hardly recognized him. To a reporter he gave the story of his suffering on the long journey westward, his welcome at Zumí, and his restoration to health on a couch of leaves in the wigwam of the head chief. He soon became so strong that the Indians put him to their hard tests—exposure to the cold, wrestling, and the like—usually reserved for young braves. After thus proving himself, he was told the secret of his recovery—"the great ground herb medicine of the Kickapoo tribe." The pamphlet ended with Cushing's declaration that he owed his life
to this pure compound of roots, herbs, leaves, and gums now on the white man's market as Kickapoo Indian Snake Oil. 3

Gushing plodded along through the early months of 1885, not feeling completely well but strong enough to handle routine work. Among other things, he compiled a long listing of the topics on which he had written; it reached 580 foolscap pages and included such subjects as Zuni creation myths, philosophy, and systems of enumeration. He then made a census, which alone ran to 210 additional pages, of all members of the tribe, and attempted to compare these names with the entries for baptisms and marriages in the eighteenth-century records of the Franciscan mission of Our Lady of Guadalupe. 4 After Baird had provided him with cartons and file boxes for his voluminous papers, the Secretary politely reminded Cushing that it was time for some report on the Chula soapstone quarry and other explorations undertaken in Virginia and Pennsylvania seven years earlier. 5 Such needling seemed necessary, for on his good days Cushing's attention was usually given altogether to his Zuni materials. 6

3 An imperfect copy of this copy is preserved at the Southwest Museum.
4 Schedule of Zuni Materials, dated Jan. 27, 1885 on file at the Smithsonian Institution.
5 Letter to Cushing, June 12, 1885 on file at the Smithsonian Institution.
6 Letters to Baird, June 7 and 11, 1885 on file at the Smithsonian Institution.
But Cushing did not have many good days. Late in June his health was so poor that he went home to Barre Center for a rest. No sooner had he arrived than he penned a long letter to Major Powell. He had just heard from Douglas D. Graham, the trader at Zuñi, who informed him that the two most important Indians of the village, the head-chief Pa-lo-wah-ti-wa and Nai-iu-tchi, the senior chief of the Order of the Bow, were most anxious to travel East again to visit their beloved Medicine Flower. Cushing hoped that they could come and asked Powell's blessing for such a trip by his native friends, for they would be able to help him a great deal with the manuscript on linguistics that he was finishing. At the beginning of August Cushing wrote again to the Smithsonian, this time assuming that the trip had been approved. "When my Indians get on here," he predicted, "I will be able, if I can, to give the linguistic work a tremendous boom." But the summer passed without the arrival of the Indians at Barre Center, and in the middle of September he wired his apology for the delay in returning to Washington. He planned to return to his office at once, he said, since his health was much improved, his weight up, and his spirits invigorated.

7 Letter to Powell, June 24, 1885 on file at the Smithsonian Institution.
8 Letter to Pilling, Aug. 1, 1885 on file at the Smithsonian Institution.
9 Telegram to Pilling, Sept. 15, 1885 on file at the Smithsonian Institution.
Cushing's erratic behavior was becoming habitual. Instead of returning to Washington, he now went to Shelter Island, in Suffolk County, New York, where he secured the services of a celebrated physician, Doctor Horsford of Brooklyn. The doctor had prescribed that the climate and restful atmosphere of this tiny community on Long Island Sound would be essential to his complete recovery, and therefore he had no choice but to prolong his convalescence! He recognized the wisdom of Major Powell in having delayed the Eastern trip of the two Indians, Cushing said, for now he would be able to work four or five hours a day with the Zuni and accomplish a great deal. Moreover, Victor Mindeleff had written from New Mexico to say that the Indians were now ready to leave. He anticipated fine progress with his linguistic study as soon as they might join him.  

As the year 1885 drew to a close, Cushing remained away from Washington and waited in vain for his Zuni friends to appear. Just before Christmas he wrote from Cambridge, Massachusetts, to say that Doctor Horsford had put him under the care of a Boston specialist, Dr. J. P. Oliver, and consequently he would need to extend his convalescent leave by six weeks more. Already he had been recuperating for almost six months, and Major Powell must have

\[10\] Letter to Pilling, Sept. 25, 1885 on file at the Smithsonian Institution.
\[11\] Letter to Powell, Dec. 16, 1885 on file at the Smithsonian Institution.
wondered if his ethnologist would ever return to work. From the absence of communication between the two in the early months in 1886 it would appear that Powell by now had become so exasperated with Cushing that he did not care, but doubtless the Major still hoped that his brilliant protege might yet fulfill the high promise he had shown. By what opportunity Cushing could fulfill that promise the officials of the Smithsonian did not dare to guess.

The opportunity came in a curious way in the summer of 1886. In June of that year—exactly twelve months after Cushing had left his desk on sick leave—he and his wife received an invitation from an elderly philanthropist, Mrs. Mary Hemenway of Boston, to visit at her retreat, Manchester-by-the-Sea. The wife of the shipping magnate Augustus Hemenway, she was well known for her interest in public education and scholarly research. The Cushings promptly accepted, moving into a cottage on the Hemenway estate which they christened "Casa Ramona" in honor of the celebrated novel on Indian rights by Helen Hunt Jackson. No sooner had they settled comfortably as Mrs. Hemenway's guests than the ethnologist received a letter from his brother, Enos, who reported that he had brought three Zuni Indians from New Mexico to the Cushing family home in New York. One was Pa-lo-wah-ti-wa, the head-chief whom Cushing had been expecting for months; the others were Wai-hu-si-wa and He-lu-ta. They had come by train to Chicago, where they visited the zoo and paid homage to three
sea-lions, and from there had gone directly to the home of Dr. Thomas Cushing. The good doctor, whom they called "Thomasy Cushie," had extended his hospitality as far as possible, and now the Indians were very anxious to see their Medicine Flower again. Cushing wrote at once to Enos, urging him to bring the three Zuñi to Manchester-by-the-Sea.

The three Zuñi headmen arrived in a carriage at Manchester-by-the-Sea on September 13, 1886, for what would prove to be an extended and mutually interesting visit. Cushing met them at the gate and undertook to greet them with elaborate formality, after which they were taken to the house and introduced to Mrs. Hemenway and the guests assembled there. Pa-lo-wah-ti-wa recognized some of the people present: Sylvester Baxter, whom he knew as Thli-ak-we; Professor Edward S. Morse, director of the Peabody Museum, whom the Zuñi chief addressed as We-shik-ya-na; and Mrs. Martha LeBaron Goddard, remembered as a user of the left hand as well as the right. Mrs. Hemenway then led the Indians to a porch overlooking the ocean, and Pa-lo-wah-ti-wa seemed as awed by the sight of the great sea as he had been four years earlier in Boston. His two companions, to whom the boundless water

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12 An untitled typescript of 18 pages, on file at the Southwest Museum, describes the reception of the Indians at Dr. Thomas Cushing's home. There they met Cushing's family and a number of friends. Evidently the Indians were disturbed by the frequent departures of Dr. Cushing for the woods "with papers under his arms and a big straw hat on." It was Dr. Cushing's habit to retreat to the out-house for solitude when he had tired of conversation, and the Indians were hurt that he did not seem to want their company.
was a phenomenon much discussed but until now never seen, stood with eyes transfixed on the mythical home of their ancestral gods.  

For the next few weeks, until the newness wore off, Cushing sat daily with Mrs. Hemenway and his sister-in-law, Miss Margaret Magill, carefully interpreting for them the animated conversation of the Indians. Miss Magill, a gifted artist, occasionally made sketches as the Zuñi talked endlessly on a variety of religious and mystical matters to which Cushing had directed their attention. In the evenings the Indians often entertained the whole company of guests with folk-tales that Cushing translated to the best advantage. When it came Cushing's turn to amuse the Zuñi, he would relate European folklore with much gusto. One of his enactments was the Mediterranean myth of "The Cock and the Mouse" which he had obtained from Thomas Frederick Crane's Italian Popular Tales. The Indians were so enchanted by this rendition that a year later, much to his surprise and delight, Cushing was told a Zuñi version of the same tale at a gathering in New Mexico.

Cushing was combining pleasure with business, but not to the detriment of business. As he was now visualizing Mrs. Hemenway as a potential patron, careful cultivation seemed in order. Each Sunday

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13 Notes by Cushing, Sept. 22, 1886 on file at the Southwest Museum.

afternoon, therefore, he took tea privately with Mrs. Hemenway, and on these occasions he offered a different and deeper interpretation of the folk-tales. It never occurred to him to look behind an ornamental screen in the corner of the sitting-room which concealed a young woman who was taking down in shorthand his every word. From her stenographer's notes Mrs. Hemenway subsequently obtained a large typescript which Cushing was never to see. After his death this material was deposited with the Bureau of American Ethnology and published in an annual report. 15

While he was unaware of the eavesdropping which Mrs. Hemenway had arranged, Cushing certainly knew that the wealthy woman herself was a rapt listener. At appropriate moments, therefore, he now dropped into the conversation a learned reference to his scientific work in the Southwest or a casual remark on the necessity to study further certain theories which he had evolved. Soon Mrs. Hemenway was asking him to explain his theories, and this he did nonchalantly but with great precision. His firm belief, Cushing declared, was that somewhere in the Southwest were to be found the ancient cities of the Zuni and perhaps also the Hopi. Only by extensive archaeological excavation could this be proven; but, once established, it would provide the vital link between the "lost" pre-Columbian civilizations

15This curious affair was described in an article in the Saturday Evening Post, Nov. 27, 1902.
and the living tribes. Further comparative study of the material culture of the living Indians against that uncovered at prehistoric sites would, said Cushing, make it possible to record a full history of the Zuni; and subsequent examination of all the sedentary natives of western America, "north and south, ancient and modern," would demonstrate that all of them were "really and simply representative of different periods, phases, or branches of the Zuni." Finally, the sum of such investigations would provide the basis of a complete and sympathetic understanding of the American natives on the part of those officials who were responsible for their well-being. 16

Mrs. Hemenway was duly impressed by Cushing's erudition and her humanitarian instincts sharply aroused by his plea for the betterment of conditions among present-day Indians. She felt further—and doubtless Cushing emphasized the point—that the opportunity to preserve monumental prehistoric ruins would soon be lost to the ravages of time, weather, and advancing civilization. Late in October or early in November she agreed to finance a large scientific expedition of the kind which Cushing had suggested. 17 An advisory board of associates


17 F. H. Cushing, Zuni Folk Tales, with a foreword by John Wesley Powell and an introduction by Mary Austin (New York: Knopf, 1931), p. 411.
was quickly formed as the legal entity of the "Hemenway Southwestern Archaeological Expedition," as the undertaking would formally be called. The board comprised the philosopher and educator William T. Harris as president; Augustus Hemenway, Professor Edward S. Morse, and Mrs. Martha LeBaron Goddard as vice-presidents; and Sylvester Baxter as secretary-treasurer.

Apparently Cushing had no trouble in obtaining from the officials of the Smithsonian a further extension of his prolonged leave of absence, for certainly Major Powell recognized that a remarkable opportunity was at hand. Cushing's wizardry with words had finally borne important fruit. If his technical and managerial abilities were now to prove equal to his salesmanship, the result would be a great boon to American science. Under the smiling eyes of Mrs. Hemenway at Manchester-by-the-Sea, Cushing now set about with unparalleled energy to plan his expedition to the last detail. His concept of its purpose and scope was in the broadest of terms. He wished not only to excavate a major prehistoric site with greater precision than had ever been attempted before, but also to study minutely all aspects of the

\[18\] From 1889 to 1906 Harris served as U.S. Commissioner of Education.

\[19\] Rufus B. Leighton was named to work as bookkeeper under Baxter's supervision.
geography, climatology, natural history, and subsequent habitation of the area. 20

It seemed appropriate, therefore, to divide the work of the expedition into four branches of research: archaeological, anthropological, ethnological, and historical. Cushing himself would superintend the archaeological undertaking and would assume personal responsibility for ethnological investigations. The work in physical anthropology would be assigned to his friend, the eminent Dutch scientist Herman F. C. ten Kate; another friend, the experienced and versatile Adolph F. A. Bandelier, would serve as historian of the expedition. Cushing chose a topographical engineer, Charles A. Garlick, as field manager, and Major Powell suggested his brother-in-law, Professor Almon H. Thompson, for the dual role of geographer and business manager in charge of the practical affairs of the expedition. Powell also nominated his bright and aspiring young clerk in the Bureau of Ethnology, Frederick Webb Hodge, as Cushing's secretary and personal assistant. Mrs. Cushing and her sister, Miss Margaret Magill, were to accompany the expedition as curators with responsibility for the care and classification of specimens.


21Ibid., pp. 6-10.
Possibly Cushing also entertained the idea that he might be able to secure the services of another learned friend, Captain John G. Bourke of the 3rd U. S. Cavalry. In the spring of 1886 Bourke, who had been General Crook's aide-de-camp for many years, had returned from field duty in the Southwest to Washington, D. C., where he was presently compiling his voluminous ethnological notes at the Library of Congress. Bourke and Cushing were evidently in correspondence, for Cushing reported to their mutual friend Francis Parkman on the 29th of November that Bourke had overworked himself to the breaking point. He was, according to Cushing, in a pitiable condition; nervous, despondent, and lacking confidence in himself, Bourke was seriously jeopardizing his health by working too many hours at the library and sleeping very little. Could not Bourke's friends, Cushing asked, help him somehow so as to lessen his worries? If the notion that Bourke might join the expedition was actually in Cushing's mind, he did not mention it to Parkman. But he did make note of the fact that the expedition was now ready to leave for the Southwest, and that for the present all mail to him should be sent to the Bureau of Ethnology.  

Early in December, 1886, Cushing and a party of five--his wife, his sister-in-law, Hodge, and the three Zuni tourists--enrolled for the Southwest. Their destination was the Salt River Valley of central

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22Letter to Francis Parkman, Nov. 29, 1886 on file at the Massachusetts Historical Society.
Arizona, an area known to be rich in prehistoric ruins. Here they would be joined by the other members of the expedition, and the work would commence. Cushing was jubilant. He had the financial support necessary to return to the field to test his theories; he had the blessing of the Bureau; and he had a staff of experienced and gifted persons upon whom to depend. It was a good portent also that just three months earlier the last of the renegade Apaches, Geronimo's band, had quit the warpath and surrendered to the military authorities in southeastern Arizona, freeing the Territory finally of the spectre of Indian depredations. No American scientist had ever gone out into the field under more favorable auspices, and Cushing could anticipate nothing but the fullest success in the adventure before him.
CHAPTER VIII

THE CITIES OF THE DEAD

Ye Fabrics of Enduring Clay

Ye fabrics of enduring clay!
In tombs where dead have lain
And mouldered, ye remain
The same as on the day
Ye first were laid away.

A thousand summers come and go;--
Ye seem to mock their ride,
As rocks resist the tide
The changes be too slow
For human life to know.

F. H. C. *

Never before in his life had Cushing been quite so anxious to get to work. His party arrived at Fort Wingate in the middle of December, and on the 19th he wired to his superiors at the Smithsonian that he was buying eight mules, two saddle horses, an ambulance, and two Thompson tents. ¹ He made a brief trip to Zuni, then left for Albuquerque to obtain a heavy Newton wagon, two buckboards, firearms, blankets, and cooking utensils. All of his equipment and supplies would be shipped by rail as far as Ash Fork, Arizona, on special rates which had been

*Cushing, Tenatsali's Leaves, p. 4.

¹Telegram to Powell, Dec. 19, 1886 on file at the Smithsonian Institution.
arranged for both the personnel and matériel of the expedition. By Christmas he had completed his major purchases and had visited with all his old Zuni friends, but he could not leave as yet because Mrs. Hemenway and some companions would be passing through Albuquerque in January on their way to the Pacific Coast. As soon as he had greeted the tourists and shown them about, he was ready to depart for Arizona.²

In the second week of January, 1887, Cushing and his wife, accompanied by Hodge and Miss Magill, arrived at Ash Fork and were taken to its finest hotel, called the Pioneer. Cushing described the building as "a lower story of unseasoned lumber, cracky in the extreme, through which the wind played jew's-harp music on the slivers..."³

After arranging for the transportation of equipment and supplies, the


³As in Haury, The Excavation of Los Muertos, p. 7.
party traveled south to Prescott by stage and on the last day of the month were ready to leave for Phoenix via the freight route down the Black Canyon. On the evening of February 8 they reached Phoenix and pitched camp at the edge of the town. Here they rested for some days and awaited the arrival of other members of the expedition. Bandelier was among the first to appear.

Once the expedition had assembled, Cushing planned to move up the Salt River Valley in search of ruins which, according to his theory, would lead ultimately to Zuni. But one day, while riding in the desert some nine miles southeast of Phoenix, Cushing caught sight of a series of mounds, and upon examining them he became very excited. At this spot, on a ridge across the Salt River from Hayden's Mill at Tempe, he decided to establish his headquarters and begin extensive excavations. A local newspaper commented that Cushing had selected his location "with an artist's eye," the white tents "standing out in marked contrast to their somber surroundings." The place, Cushing thought, should be called Camp Augustus Hemenway in honor of the husband of his sponsor.

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4 Letter to Powell, Feb. 23, 1887 on file at the Smithsonian Institution. In this communication Cushing reported his health as superb, but noted that certain provisions which he had ordered were not yet at hand.

5 Tucson Arizona Daily Star, Feb. 25, 1887.
Even before his professional staff had assembled at Camp Augustus Hemenway, Cushing was characteristically in full career as "Director" of the expedition. The first local man to be employed was Ramón Castro, a highly intelligent person to whom the supervision of a large archaeological field force of Mexican-Americans was entrusted. Castro soon demonstrated not only his managerial skills but a real instinct for the scientific aspects of the work. His younger brother, Rafael, was made responsible for the care of the horses and mules. Dan DuBois, a frontier character known to most of the residents of the area, was hired as a general utility man to keep the camp in good shape.

The first public utterance of the director was one which he simply should not have made. It bore all the marks of his impetuosity and overconfidence in his own judgments. As soon as a superficial survey of the ruins had been completed and a few artifacts found and classified, Cushing declared hastily and erroneously that the ancient inhabitants had been of the great Toltec race and were the progenitors of the Zuñi. These ancient peoples, he said to a newspaper reporter, had migrated continuously southward and finally reached the apex of

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6 Baxter, The Old New World, p. 10.

7 Out of his marriage to a Mexican woman in 1887 DuBois had four children, two of whom were named Emily and Maggie (Margaret) after the Magill sisters. See F. W. Hodge, "Dan DuBois," in Los Angeles Corral of Westerners' Brand Book, 1950 (Los Angeles, 1951), pp. 137-51.
their development in the Inca civilization of South America. It is possible, of course, that Cushing was misquoted as a result of his own effervescence or that of the reporter, but more likely his compulsive assertiveness led him to say exactly what was ascribed to him. In any case he committed a serious blunder by offering any kind of premature interpretation to the press. Since he was fully aware that the eyes of the scientific world were on him, he should have realized the importance of the fact that some of those eyes were not friendly.

Once his topographical expert, Charles A. Garlick, had arrived, Cushing began to survey for outlying sites. Ruins were scattered throughout the valley. When discoveries were made at the eastern end of the Salt River Mountains some eight miles south and two miles east of Tempe, Cushing put men to excavating there at once. Soon he had staked out four major areas, naming each for some peculiarity of the locale: "Los Muertos," where a number of skeletons were unearthed; "Las Acequias," the site of a complex of irrigation canals; "Los Hornos," which contained what Cushing called "ovens;" and "Los Guanacos," where figurines resembling the South American guanacos were found in numbers. He and Garlick worked together particularly on the canal system between Los Muertos and Tempe, which the

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8This article in the Tucson Arizona Daily Star, Feb. 25, 1887 was subtitled: "The Relics of Bygone Ages Soon to Yield Their Well Kept Secrets."

9Phoenix Weekly Herald, Mar. 10, 1887.
engineer mapped in minute detail. As Cushing prowled over the mounds and through the ruins which Castro's crews were digging out, he began to envisage the size of the ancient civilization in the Salt River Valley. By the middle of the summer he was speaking exuberantly of thirteen identifiable "Pueblo Cities" of prehistoric times in central Arizona.

To all who would listen, Cushing readily expounded his theories. One evening at Camp Augustus Hemenway he was relating to some guests from Phoenix his hypothesis that the pueblo of Los Muertos, where extensive excavations were then in progress, had been destroyed by an earthquake. One of the visitors interrupted with the comment that earthquakes were unknown in the Salt River Valley. At that moment

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the flag on Cushing's tent began to flutter, and a slight tremor was felt. "An earthquake, gentlemen!" declared Cushing triumphantly. It was the Sonora quake of 1887, a disturbance powerful enough to be felt as far north as central Arizona. A God-sent phenomenon such as this could hardly have diminished Cushing's conviction of the correctness of his interpretations.

Summer in the Salt River Valley brought the most intense and unrelieved heat Cushing had ever known, and despite his efforts to maintain a good physical condition he fell ill in July with severe stomach pains. Local doctors advised him to go to a cooler climate to recuperate, but he refused to do so. If he left the expedition, Cushing insisted, vandals and curiosity-seekers would overrun the excavated areas and carry off every artifact they could find. Valid or not, this fear kept him astride his horse or riding about in his buckboard until he was prostrate at the end of each day. It would appear, therefore, that the director either lacked confidence in his assistants or had become so personally identified with all aspects of the work of the expedition that he regarded himself as indispensable. Whatever the explanation, Cushing's health worsened each week. By the middle of August he

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11As in F. W. Hodge's foreword to Haury, The Excavation of Los Muertos, viii.

was spending most of each day on the cot in his tent.

The news of Cushing's illness was not long a secret. Having learned of it in Washington, D. C., his friend Captain Bourke made a trip to Massachusetts in August to consult with Francis Parkman and Sylvester Baxter. On the 15th Bourke and Baxter left for Manchester-by-the-Sea for a meeting with Mrs. Hemenway. Her immediate reaction to their description of Cushing's plight was that a suitable person should be sent to Arizona to relieve the director for a month or two. Without hesitation Bourke recommended Dr. Washington Matthews, the Army surgeon whose researches among the Navajo already had earned high acclaim. As a general ethnologist, Bourke said, Dr. Matthews had "no superior in the world"; and if anyone could be compared to Cushing in his special field, it was Matthews. Since Matthews was not only Cushing's personal friend but also was a medical man, Bourke thought him the ideal choice. Mrs. Hemenway agreed, and the necessary recommendations were rushed to Washington. On September 1, 1887, Secretary of War William G. Endicott ordered Dr. Matthews to proceed to Arizona and assume charge of the work of the Hemenway expedition until Cushing's health had improved.13

When Dr. Matthews reached Camp Augustus Hemenway early in September, he found Cushing quite debilitated but not desperately ill.

Perhaps on the urging of Mrs. Cushing, the doctor recommended an immediate trip to the Pacific Coast to escape not only the heat but the "lively companions" of the camp—the flies, mosquitoes, scorpions, tarantulas, and rattlesnakes—to which the ladies of the expedition had never become accustomed. Cushing seemed agreeable to the idea, but then Matthews made the tactical mistake of informing him of the recent death of their mutual friend, Spencer F. Baird of the Smithsonian. Cushing was suddenly beside himself with remorse. He mounted his horse and rode for several hours in the desert to be alone and to think of the man who had given him his start in anthropology. When Matthews and Mrs. Cushing finally succeeded on September 9 in getting the director to consent to take a rest in California, a violent rainstorm prevented the party from reaching the Maricopa station of the Southern Pacific.  

Once having returned to camp, Cushing took to his tent and apparently lost interest in the projected vacation.

While he and Cushing doubtless discussed all aspects of the expedition, Matthews was reluctant to make many suggestions regarding its practical affairs. He did notice, however, that no attempt had been made to assure the preservation of the human bones which had been excavated at Los Muertos. Since the physical anthropologist whom

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14Baird had died on August 19, 1887.

Cushing had selected, Dr. Herman F. C. ten Kate, had not yet arrived from Holland, Matthews decided that something should be done at once. Accordingly he asked the curator of the Army Medical College, the eminent John Shaw Billings, to send his skillful anatomist, Dr. Jacob L. Wortman, to Arizona with the materials necessary to preserve these remains. Wortman arrived in November and assumed responsibility until the appearance of ten Kate shortly thereafter. 16

Not until almost the end of September was Matthews able to convince Cushing that he must take a brief rest to restore his health. 17 On the 26th the doctor, Cushing, Mrs. Cushing, and Miss Magill left Tempe by railroad for southern California. Matthews had telegraphed for a Pullman berth for Cushing, but none was available. The sick man, lying on the floor in a corner of the crowded coach, soon fell into a delirious sleep and harangued in the Zuni tongue. After having a hot meal at Yuma, he was apparently better. On September 29 the train reached San Diego and the patient was turned over to another Army medico, Dr. David L. Huntington, so that Matthews might return to Arizona. 18

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16Ibid., pp. 216-217. The bones were later sent to the Army Medical Museum for study. See John S. Billings, Washington Matthews, and Jacob L. Wortman, "Human Bones of the Hemenway Collection in the U. S. Army Medical Museum at Washington," Memoirs of the National Academy of Sciences, vol. 6 (Washington, 1893), pp. 139-331.

17Phoenix Weekly Herald, Sept. 22, 1887.

Once he had sampled the menus and enjoyed the cool breezes of the coast, Cushing apparently was in no great hurry to get back to the desert. On doctor's orders he rested for a time in the salubrious climate of San Diego, then began a leisurely trip northward to Los Angeles and points beyond. He was much stronger now, and wherever he went he was willing to answer the questions of newspaper reporters on the work of the expedition. Evidently Mrs. Cushing either made no effort to protect him from such interrogations or was wholly unable to restrain her talkative husband. Finally, in November, he was lecturing to large audiences on the recent discoveries in Salt River Valley—and, as usual, interpreting the significance of the discoveries in a spectacular and most personal fashion. To an assemblage in San Francisco which included some members of the faculty of the University of California, Cushing offered his rendition of a Zuni lullaby and another song in the Indian language. Considering the recent frailties of the singer, it was a virtuoso performance.

Fully rejuvenated after a coastal vacation which had grown from the three weeks originally projected to three months, Cushing was back at his camp in January, 1888, and ready for a heavy schedule of work. In the next few months he did everything with his old fervor. Each day he was busy in the field, and in the evenings he made notes or

19San Francisco Daily Call, Dec. 1, 1887.
attacked his accumulated correspondence. One of his most carefully
drafted letters was to President Cleveland in support of the application
of Captain Bourke for promotion to the rank of major. Cushing
suggested that Bourke be given the title of inspector-general so that
he would be in a better position to pursue research in the important
branches of science to which he had already devoted many fruitful
years. Bourke did not win the promotion. Another matter which
troubled Cushing for a time was the claim of a flamboyant pioneer,
Albert Franklin Banta, to have been the first white man adopted into
the Zuni tribe. To the editor of the Holbrook newspaper Banta declared
that he, rather than Cushing, was the first to be "initiated into the
sacred rites of the 'Cachina' in the privacy of the estufa." It had
happened, Banta said, in 1866—thirteen years before Cushing had ever
seen the Zuni village. When he learned that Banta was well known in
Arizona for his braggadocio and his claims to various "firsts," Cush­
ing shrugged off the whole matter.

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20 Letter of April 3, 1888 in Bourke's file on Appointments, Commissions,
and Promotions (No. 6281), National Archives.

21 As reported in the Tucson Arizona Daily Star, Feb. 25, 1888. For a
sketch of the life of this interesting man, see Frank D. Reeve (ed.),
"Albert Franklin Banta; Arizona Pioneer," New Mexico Historical
Review, vol. 27 (1952), pp. 81-106, 200-252, 315-347, and vol. 28
(1953), pp. 52-67, 133-147. According to John C. Bourke, a "Charles
Franklin" (one of Banta's early pseudonyms) had lived with the Zuni in
1878 and was an adopted member of the tribe. See Bloom (ed.),
"Bourke on the Southwest," vol. 11, no. 1, p. 12.
The director of the Hemenway expedition had more important matters on his mind in the spring of 1888. By this time his crews had located and surveyed some 150 miles of irrigation canals, a few of which had been cleaned out earlier by Mormon farmers and were in regular use. The Los Muertos area had proven so large in circumference—more than two square miles—and so rich and diversified in ruins that an important hypothesis might be derived. Classifying the Los Muertos ruins into four types—priest temples, sun temples, communal dwellings, and ultra-mural houses—Cushing now calculated that 13,000 people had once inhabited the area. His imagination stimulated as never before, the director ordered that work at the other sites in the Valley be pursued with all possible speed.

At about the time that Cushing was formulating his theory on the size of the ancient population of Los Muertos, his old friend Sylvester Baxter arrived from the East for an extended visit. Baxter was formally the secretary-treasurer of the expedition, but the principal purpose of his visit was to gather data for a series of articles and certainly not to audit Cushing’s accounts. When Baxter stepped off the train at the new station at Tempe, Hodge was there to greet him. In a buckboard drawn by two mules they proceeded to Camp Augustus Hemenway where Baxter was welcomed by Mrs. Cushing and Miss Magill.

For a detailed explanation of how Cushing arrived at such arbitrary conclusions, see Matthews, "Explorations in the Salado Valley," pp. 356-359.
At the moment Cushing was out at a dig, but shortly he galloped into camp on his horse, "Douglass," his eyes shining with happiness at the sight of his dear friend. As Cushing showed him through the camp, Baxter was impressed by its neatness and the apparent efficiency of the operation. Cushing's tent, pitched in the very center of the camp, showed touches of feminine presence; handsome Zuni blankets covered the two cots, and hanging Pima basketry provided a decorative effect. Baxter may have been surprised to see a large number of artifacts kept on shelves in Cushing's tent. The director explained that he was personally guarding the more valuable pieces which had been unearthed at particular sites. Hodge's tent was equipped with a writing table and files, and the other members of the staff had their individual tents nearby. Miss Magill kept house in a small "dog-tent" next to that of the Cushings, and a Sibley tent for guests was pitched on the other side. Another large tent, with a ramada attached, housed the collections. Next to the long tent of the Mexican laborers was still another in which a photographic laboratory had been set up.24

As a cowbell signalled the serving of dinner, Cushing remarked that one of his most difficult problems was in keeping a reliable cook.

At the meal that evening Baxter was introduced to Ramón Castro,


foreman of the crew, who displayed a keen desire to exhibit the archaeological knowledge he had obtained from his daily contact with Cushing. In truth, Castro had developed a particular skill in tracing accurately the course of buried walls, and Cushing was justifiably proud of him. Baxter learned, however, that Cushing kept a very close watch over all excavations and made photographs at every stage of the digging. His days were spent altogether in the field, either at a certain site under excavation or on his horse in the desert in search of new ruins. Garlick was often in the field with him, but also spent part of his time at the camp attending to some practical matter. Bandelier, the historian, usually worked at his desk, as did the anthropologist ten Kate, but both were occasionally called into the field. Hodge was almost always busy with correspondence or memoranda which Cushing had dictated in the evenings. Miss Magill spent a good part of each day over her easel, turning out water-color representations of the more important artifacts.

At Las Acequias, in what Cushing called one of the ancient "reservoirs," digging had begun, and Baxter was taken to the site. He was impressed by the size of the operation as evidenced by the great heaps of yellow earth which had piled upon the plain. Another day Cushing, Garlick, Castro, and Baxter explored a large cave on the face

25 Ibid., pp. 15-16.

of Central Butte near Tempe. Their search was abundantly rewarded when they discovered a large number of artifacts which Cushing identified as sacred tablets, prayer-wands, and "sacrificial cigarettes" made of cane. At the end of the day, after the sifting of "ashes and guano" was finished, Baxter counted more than 1,600 of these "cigarettes."\(^{27}\) On the same day Dr. Wortman, working at the Los Hornos site, had recovered a fragment of a copper bell. Several days later another fragment was found.\(^{28}\) Such discoveries could not long be kept from the press, for not only Cushing but his associates were frequently called upon to make statements. The stories that resulted were often more spectacular than even Cushing cared to see.\(^{29}\)

Over the campfire one evening Baxter expressed his ardent wish to visit Arizona's most famous prehistoric ruin, the Casa Grande, located south of the Gila River and west of the town of Florence. Cushing had often mentioned it to Mrs. Hemenway, and the previous winter she had strenuously urged legislation by Congress to preserve the


\(^{28}\)Ibid., p. 44.

\(^{29}\)The most imaginative of all such accounts appeared in the Tucson Arizona Daily Star, May 23, 1888, under the title, "Arizona's Buried City: Lieut. Cushing Describes the Relics of the Past Unearthed at Los Muertos." For other examples, see the Tombstone Epitaph, Jan. 21, 1888, and the Prescott Weekly Courier, Apr. 20, 1888.
"Great House." Her efforts were supported by Cushing and other scientists, and as a result a bill was passed which set aside the site of the Casa Grande as national property and appropriated two thousand dollars for its protection and upkeep. When Baxter now indicated his keen interest in seeing the huge ruin, Cushing planned the trip. The next morning, with a complete outfit and provisions for a few days packed into a Studebaker wagon drawn by four mules, the party set out southward across the plain between the Sacaton and Estrella Mountains. Among the several Mexican crewmen accompanying Cushing and Baxter was an excellent cook named Sanchez, who spoke the Piman tongue well enough to serve as interpreter to the local Indians should the occasion arise.  

That day they found some interesting fragments of pottery in what Baxter described as a "basin-like oval" in the desert, then traveled in the direction of the cultivated fields of the Pima villages along the Gila. They pitched camp at a place Cushing called "Las Cenizas" because of the abundance of ash in a mound of ruins there. As they sat about the fire after a dinner of canned food and coffee, Baxter spoke of his amazement at the pure dryness of the desert air. This must be the primary reason, he thought, for the fact that archaeological work in central Arizona could uncover such a quantity of

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artifacts in pristine condition after many hundreds of years. 31

The party was in the field for almost a week. They were favored with moonlit nights, and after dinner Cushing and Baxter went out with shovels over their shoulders to dig at some nearby mound. Cushing showed Baxter how the traces of walls, which often could not be seen in the brightness of day, were distinctly visible in the shadows cast by the moon. After passing the trader's store at Sweetwater, the party finally reached the main agency of the Pima reservation. The Casa Grande, four miles from this place, was visited both by night and by day, and Baxter marvelled at the sight as Cushing theorized on its significance. Moving on to Florence, the seat of Pinal County, they obtained new provisions and proceeded southward for a day or two.

When Cushing and Baxter returned to Camp Augustus Hemenway, each man had a "depth of brown" in his cheeks which rivalled that of their Mexican companions. 32

In the summer of 1888, not long after Baxter had departed for the East, Cushing fell ill again. He suffered terribly from abdominal

31 Ibid., p. 102.

pains for days at a time, and the intense heat added to his discomfort.

By now, however, he was satisfied with the extent of the excavations in the Salt River Valley, and confidently he ordered the expedition to move up the valley toward Zuni. It was his plan to dig at the ruins of Halona and Heshotauthla as the initial step in a thorough study of the fabled "Seven Cities of Cibola." As the expedition prepared to strike camp, the collections were carefully packed for shipment to the Peabody Museum according to the wishes of Mrs. Hemenway. Some of the choice artifacts were then to be sent to Berlin for exhibit at the 1888 meeting of the International Congress of Americanists.

Cushing began to excavate at Halona in September, but soon moved his crew to Heshotauthla in the belief that the work might proceed faster there. His health worsened, however, and in October he finally admitted to himself that he could not go on. He would have to return to Washington for an indeterminate time for rest and treatment in a hospital. It was his hope to be back in the Southwest the following spring; in the meantime Hodge would have to assume responsibility for the management of the expedition. Hodge had expressed a desire to continue with the excavation of Halona, and to this Cushing consented.


34 F. W. Hodge, History of Hawikuh (Los Angeles, 1937), xv.
Cushing's convalescence in Washington proved to be a long one. Instead of returning to the Southwest in the spring of 1889, he was confined to a bed in the Garfield Memorial Hospital. His stomach pains were constant, and he was in the depths of despair. On May 26, Captain Bourke visited the patient, bringing his four-year-old daughter Sarah with him to provide some additional cheer. Sylvester Baxter and Dr. Wortman were also there that day, and Cushing's spirits revived at the sight of his friends. To entertain the guests Mrs. Cushing played a graphophone from which came sounds in the Zuni, Navajo, and Apache tongues—to the delight of all present except little Sarah, who seemed genuinely frightened of the talking machine. Four days later Bourke and his wife brought flowers to Cushing's room. The sick man was in a very depressed state. His Boston sponsors, he said, simply did not understand what he had tried to do in Arizona or the problems that he had encountered there. He had heard that Mrs. Hemenway was about to send another ethnologist to the Southwest as his permanent replacement. He was fearful that his work would be ruined and his reputation destroyed. Bourke, he said, was the only one who could take his place. "Cherish my memory," he begged of the captain, "and let the world know of my hard work. . . that my method was the correct one in ethnological investigation. . . . Make mention of me in your books. I'll feel proud to know that my name shall appear in them." Bourke attempted to soothe him by remarking that his illness had made him
nervous and excitable. Cushing was the foremost ethnologist in the world, Bourke declared, and no one could remove him from that pinnacle. The magnificent collection of artifacts, photographs, sketches, and memoranda which he had amassed at Zuní and in the Salt River Valley would always stand as a testimonial to his brilliant pioneering in American science. 35

Others did not share the views of Bourke, and Cushing's apprehensions were soon justified. In the summer of 1889 Mrs. Hemenway sent a professional scholar, Jesse Walter Fewkes, to New Mexico to investigate and report on the state of the expedition. Fewkes, who wore a Phi. Beta Kappa key on his watch chain and was a doctor of philosophy, had been a guest of the Hemenways in California in 1887. 36 Their growing confidence in his abilities and judgment, together with the fact that Cushing's illness was evidently quite serious, led Mrs. Hemenway to her decision. After a brief survey of conditions which apparently dismayed him, Fewkes returned to Boston and recommended to Augustus Hemenway that the project either be reorganized under new leadership or dissolved entirely. The expedition was thereupon


reorganized under the directorship of Dr. Fewkes, who carried on the field work sporadically for the four years. 37

The curiously bitter comments of Cushing's historian, Bandelier, doubtless had some effect on the decision of the Hemenways to reorganize. If the affairs of the expedition were entrusted to him, Bandelier declared, he could quickly correct Cushing's mistakes. Bandelier promptly offered his services to Mrs. Hemenway, but she gave him no positive answer. 38 Then he complained to an influential friend in Boston, Professor Charles Eliot Norton of Harvard, 39 that Cushing had "sadly miscarried the business" and had "squandered recklessly" in the field without "system or method." He continued: "I know Cushing. He made some invaluable discoveries, but the sudden popularity and newspaper fame turned his head. As soon as the Hemenways showed such extravagant confidence in him, it was 'Mr. Director'

37 The project was not formally terminated until after the death of Mrs. Hemenway in March of 1894. For the work of Fewkes as director of the expedition, see two of his many contributions to anthropological literature: "A Study of the Summer Ceremonials at Zuni and Moqui Pueblos," Bulletin of the Essex Institute, vol. 22, no. 7-9 (July-Sept. 1890), pp. 89-113, and The Hemenway Southwestern Archaeological Expedition (Boston, 1891), 2 vols. The notebook which Fewkes kept while inspecting the expedition in 1889 is on deposit at the Peabody Museum, but was not made available to this writer.


39 Professor Norton, onetime editor of the North American Review, was the founder and first president of the Archaeological Institute of America.
thereafter, and no longer work as it should have been done." Cushing had kept him on false hopes and half-promises for eight months prior to the collapse of the field work, Bandelier said, and now he was again "on the street." As it happened, Cushing and Bandelier shored up their friendship a few years later when both were more mellow and situated in secure positions. In 1892 Bandelier no longer blamed Cushing, and neither man blamed Mrs. Hemenway. They felt that they had discovered the real villain in Dr. J. Walter Fewkes. 41

Angry as he was in 1889 over the outcome of the Hemenway expedition, Bandelier was ready to admit that Cushing's work in the Salt River Valley had established indisputably the fundamental relationship

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41 In a letter to Professor Norton in 1892, Bandelier warned his correspondent of "that snake in the grass" and reported that Major Powell was "fully aware of everything...he told us that Fewkes was understood, and everybody on his guard against him." Ibid. See also Bandelier's letter of May 16, 1892, in Unpublished Letters of Adolphe F. Bandelier. There is, however, not yet enough substantiating documentary evidence to permit the conclusion that Fewkes actually intended to discredit Cushing in order to obtain control of the expedition for himself. In his writings of later years Fewkes was highly complimentary of the work of Cushing in the Southwest.
between ethnology and archaeology. The expedition had been a scientific success even while its immediate results proved Cushing's ineptness as a manager of men and money. One of Cushing's most ardent admirers concluded that the fatal mistake of Mrs. Hemenway was in believing that a brilliant young man who could speak so inspiringly could also assume responsibility for the proper expenditure of a grant of $25,000 per annum. As Charles Fletcher Lummis noted ten years later in his Los Angeles magazine, "This magnificent expedition, which seeded the dry valleys of New Mexico and Arizona with gold eagles and hopes, is generally written a failure." And Cushing finally summed


it up in this sentence: "Mrs. Hemenway honored me with greater confidence in my ability to carry on such work than I possessed of myself."\textsuperscript{44}

\textsuperscript{44}\textit{Zuni Folk-Tales}, p. 21.
CHAPTER IX

DISCOVERIES IN FLORIDA

Far to the southward, bright and fair
A goddess held her course through air,
She breathed—and minions marked her will,
For wind-gods, ere she breathed all still,
Sprang when she waved her golden hair
From out her chariot in the air,
And sped from out the Ice-Kings’ land
And turning traitor lured and fanned
The crystal barges toward the port,
Where held the summer Nymph her court.

F. H. C. *

The years 1889 and 1890 were the unhappiest and least productive of Cushing's life. Brooding and despondent over the collapse of the venture which he had come to regard as the culmination of his life's work, he seemed unable to shake off his lingering illness. He spent many months in a hospital bed and many more in bed at his house in Washington. He was in physical pain much of the time and in mental anguish almost all of the time. The ministrations of his wife and the patience and encouragement of his friends proved of little avail, though he was grateful for the continuing thoughtfulness of the officials of the Smithsonian. Baird's successor, Dr. George Brown Goode, was

* Cushing, Tenatsali's Leaves, p. 8.
FRANK HAMILTON CUSHING IN 1891 [?].

Photograph courtesy of Bureau of American Ethnology, Smithsonian Institution.
sympathetic, and Major Powell apparently regarded Cushing with true affection throughout this period. In any case, he was kept on the rolls of the Bureau in some sort of status of indefinite leave.

Finally, in January of 1891, Cushing began to attend regularly to correspondence and to work a little on his notes. By August he was feeling well enough to do some serious writing on Zuñi myths with a view to publishing something in the next annual report of the Smithsonian. That fall he felt sufficiently strong to undertake a field trip to the shores of Lake Erie and Lake Ontario. Here he located fragments of pottery with a cross-hatched design, and observed some pits in the sand which he felt to be related to the manufacture of the pottery. By making replicas of the pottery, he was able to demonstrate that the originals had been shaped in pits that had been lined with fishing nets.

The field work in northwestern New York proved an excellent tonic for Cushing. Early in 1892 he was back at his desk in the Smithsonian and quite ready at last for his regular duties as resident ethnologist. He had a great deal of writing to do, and now undertook it with vigor. Major Powell was doubtless pleased with his efforts, for

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1 Letter to Miss Kate Field, Jan. 7, 1891 on file at the Boston Public Library.


3 Ibid., p. 51.
within a few months Cushing had two papers in print. One was a thoughtful study of the significance of primitive hand-usage in cultural development. In this article Cushing defined the steps in man's intellectual growth as biotic, manual, and mental, and gave diversified evidence showing the importance of manual concepts in the formation of spoken language. He seemed finally to be hitting his stride, and evidently he was not terribly disturbed by the news that Fewkes was being sent to Spain as curator of the Hemenway exhibit in the historical exposition at Madrid commemorating the four hundredth anniversary of discovery of the New World. While certainly he reflected with some bitterness on the irony of his development, he was pleased to learn that Bandelier had found a new niche for himself. The railroad magnate Henry Villard had offered him an unconditional grant for anthropological research in Ecuador, Bolivia, and Peru. Cushing prepared a note on Bandelier's

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forthcoming expedition for publication in the American Anthropologist.  

Early in 1893 Cushing was asked to give an address before the Anthropological Society of Washington. He promptly accepted, and illustrated his presentation with lantern-slides. For most of that year he was in good spirits. One reason for this was the birth of a friendship with a fellow anthropologist, Stewart Culin of the University of Pennsylvania, which was to deepen into one of the most satisfying relationships of his career. Culin, who was just one year his junior, quickly developed an appreciation of Cushing's consuming desire "to know and to understand." His admiration for Cushing's "chief ideal" of "perfected knowledge" was to increase as their friendship ripened.  

Shortly after he had met Culin, Cushing received an interesting assignment. In June he was detailed to Chicago to superintend the ethnological exhibit of the Smithsonian at the World's Columbian Exposition.  

Born showman that he was, Cushing thoroughly enjoyed his experience in Chicago despite the necessity of sending full reports and invoices to

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6 Vol. 5, no. 3 (July 1892), pp. 273-276. Bandelier sailed from San Francisco on June 6, 1892 and remained in South America for the next ten years. Before leaving, he had submitted his 115-page "Outline of the Documentary History of the Zuni Tribe" for publication as Vol. 3 of the Journal of American Ethnology and Archaeology (Boston, 1892).

7 Letter to Powell, Jan. 26, 1893 on file at the Smithsonian Institution.


9 Instructions to Cushing, June 16, 1893 on file at the Smithsonian Institution.
his superiors in Washington. The acting director of the Smithsonian, Col. Henry Clay Rizer, apparently wished to keep a close watch over Cushing's activities and expenditures that summer even though Dr. Goode, the chief official of the Institution, was himself in Chicago for the last season of the fair. 10

Perhaps it was the absence of artifacts of the Hemenway expedition from the display at Chicago that brought Cushing back to the edge of despondency. After his return to Washington it was evident that he had begun again to brood over the collapse of his Southwestern venture. In November he received from James H. McClintock, an Arizona journalist, 11 a set of articles on the Hemenway expedition which McClintock had written for the Phoenix Gazette. McClintock had presented an account of the work at Los Muertos in a way which pleased Cushing very much, but the recollection of it all deeply saddened him. He was possessed by a "painful fever of desire to renew and extend research and exploration in the Southwest," he wrote to McClintock, and it depressed him to "wait, wait, wait for the Salado materials" to be returned to his possession. He had often wondered what his friends in Tempe and Phoenix thought when, as the years went by, no report

10 Letter to Rizer, Aug. 8, 1893 on file at the Smithsonian Institution.

11 For a sketch of the interesting career of McClintock as a journalist, soldier, and local historian, see the article by Bert Fireman in Arizona and the West, vol. 4, no. 4 (Winter 1962), pp. 303-308.
on the Salt River Valley excavations ever appeared. "But I have never explained the matter," he went on, "thinking, as I have thought from month to month and year to year, that my notes, maps, and collections would be restored to me, and that I might then write and send forth the reports themselves."  

But Cushing was too occupied with other writing to lament his misfortunes for long. In December, 1893, he published a Zuñi tale of Cañon de Chelly, and the next month he finished the introduction to his large work on Zuñi creation myths which was scheduled to appear in a forthcoming annual report of the Bureau. In January also he published a substantial article on the use of copper by Indians, drawing again on his experience among the Zuñi and using Mexican and Peruvian comparisons for purposes of interpretation. Then, in the second week of March, came the news that Mrs. Hemenway had died in Boston on the 6th of that month. Cushing and other friends of the remarkable lady attended a special memorial service held for her at the Old South

12Letter to McClintock, Nov. 11, 1893 on file at the Southwest Museum.


Meeting-House on May 2. In the meantime the trustees of her estate had offered the total collection of the Hemenway expedition to the Peabody Museum. The officials of the Peabody quickly accepted, and on the 3rd of May—ironically enough, while Cushing was still in Boston—the whole collection of some five thousand specimens was transferred to Cambridge. It was clear to Cushing now that his "Salado materials" would never come back to him. For him, there was scant satisfaction in the announcement that the collection would be maintained as a unit and put on permanent exhibit in the new "Mary Hemenway Room" of the Peabody Museum.

Disappointed as he must have been, Cushing continued to write prodigiously. Before the end of the year he had placed another major article into the expanding mainstream of anthropological literature, and his salary at the Bureau had been increased from $125 to $137.50 per month. As the year 1895 opened, Major Powell found himself extremely busy as editor of all the articles on Indians to appear in

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16 Larkin Duncan (ed.), Memorial Services in Honor of Mrs. Mary Hemenway by the Boston Public School Teachers (Boston, 1894), p. 3.


19 Letter to Cushing, Nov. 22, 1894 on file at the Smithsonian Institution.
Johnson's Universal Cyclopaedia. At his request Cushing agreed to prepare four articles for the multi-volume set. While carefully done, each of these--on the Keresan, Zunian, Pueblo, and Tanoan Indians--had the poetic qualities of his less formal writing. At the same time he was finishing a learned article on arrows for the American Anthropologist. By now Cushing had demonstrated abundantly, and certainly to the satisfaction of his superiors at the Smithsonian, that he was a genuine scholar. He could synthesize and write with the same skill that he could do exploratory work in the field. Of his versatility and professional productivity there was no longer room for doubt.

Large as his bibliography and his reputation had grown, Cushing was becoming restless in his office at the Bureau. He was not unhappy there, for his relations with Major Powell were now most cordial and he was on good terms with the ethnologist-in-charge, Professor William J. McGee. Yet, while professional publication had come to mean much to him, his deeper desire was still to conduct research in the field. Exploration, he felt, was his destiny; he was not

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a man to be confined to a desk. For more than five years he had been away from field work, and now the field beckoned strongly again. He had been following with much interest the activities of Clarence B. Moore in the South, and early in 1895 he contributed a congratulatory note on Moore's work to the *American Anthropologist*. Moore, a graduate of Harvard and a world traveller, had spent many years in the exploration of Indian mounds in the Southern states, especially in Florida. Summarizing his discoveries, Cushing wrote: "He soon cut a trail for himself through quite unbroken ground, and has ended by making . . . a finished highway over which we may all travel easily and safely to very definite destinations." If Cushing seemed to be suggesting that Moore's work in the field should be continued and enlarged upon, he was very likely thinking of himself as just the man for the task.

Cushing's note appeared in the April number of the journal, and the next month he went to Philadelphia for a medical examination at the University of Pennsylvania. Whether by coincidence or by design, he was put under the care of Dr. William Pepper, the eminent physician who had developed the "teaching" hospital at the famous medical school of that institution. As it happened, Dr. Pepper also had long been deeply interested in the Florida activities of Moore, a native of Philadelphia and an old acquaintance. After reading Cushing's note, he

*American Anthropologist*, vol. 8, no. 2 (April 1895), 185-188.
wrote to Moore. The University of Pennsylvania, Pepper told his
friend, held an important concession from the Disston Land Company
of Florida conveying the right to excavate the mounds on its property;
and since these excavations were about to begin, the department of
archaeology wished to invite Moore to take personal charge of the
operation.23

When Moore appeared at the University of Pennsylvania in the
middle of May to discuss the potentials of further work in Florida,
Cushing was still in Philadelphia and was therefore invited to partake
in the conversations. Doubtless he was encouraged to partake, since
the director of the department of archaeology was none other than his
admiring friend, Stewart Culin. Moore showed some of his specimens,
and everyone was impressed. When asked by Culin if he would be
available for the Florida project of the university, Moore regretfully
deprecated; he simply had too much work of his own to complete. Pepper
and Culin, however, were determined that the project should begin at
once. Funds were available, and the recent publicity given to Moore's
activities made it likely that unauthorized persons would soon be digging
in Florida and doing incalculable harm. Since Moore was not free to
take charge of the university expedition, someone else must be appointed.

23Letter to Moore, April 13, 1895 on file at the University of Pennsylvania.
Pepper and Culin agreed that Cushing was just the man for the job. Obtaining permission from the Smithsonian to make an exploratory visit, Cushing was away for Florida with remarkable speed. In the last week of May he wrote to tell Pepper that he had reached Jacksonville and already had seen unmistakable signs of long aboriginal occupancy in that area. After a rapid tour of the Gulf coast which included Punta Gorda and Pine Island in Charlotte Harbor, he was convinced that the western shore of Florida was virgin territory for archaeological investigation. From local residents he had learned of many enormous shell mounds still untouched, and from these he had collected a few specimens. He then chartered a vessel, sailed south, and carefully examined three keys in the Marco complex which had been built up from the low reefs. These, he felt sure, had been constructed "entirely by the hand of primitive man" who approached their shell cities by ways of canals much in the manner of the early pile-villagers of the Swiss lakes. Here, he declared, was positively a great field for excavation. Early in June he wrote again to report the results of some test trenching. In the mud of several trenches which his crew

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25 Letters to Pepper, May 24, 25, 26, 1895 on file at the University of Pennsylvania.
had bailed out, Cushing found wooden clubs, shell cups, and potsherds in abundance.  

His reconnaissance completed, Cushing returned to Washington. His enthusiasm was at fever pitch, and he was delighted to find that it was shared in some degree by his superiors at the Smithsonian. Dr. Goode, Major Powell, and Professor McGee encouraged him to write up a summary of his survey. In it Cushing made confident references to the vast number of man-made mounds which awaited excavation in Florida. Some of the keys along the western coastline had been modified greatly by the Gulf tides, he admitted, but others had been changed "artificially" by primitive hands. Exploration of these keys for aboriginal remains would, in his opinion, unlock the secret that might explain why the Seminole Indians of Florida displayed "certain characteristics which appear to ally them with the Caribs."  

High as were Cushing's spirits in July of 1895, his health was not good. At the suggestion of Dr. Pepper he now retired to Mt. Gretna, in Lebanon County, Pennsylvania, for a short rest. Evidently Pepper had informed him that his abdominal condition might require surgery, for Cushing wrote to a friend that he hoped "to gain in these mountains:  

\[26\] Letter to Pepper, June 6, 1895 on file at the University of Pennsylvania.  
\[27\] Letter to Pepper, July 3, 1895 on file at the University of Pennsylvania.  
as much strength as possible before being subjected to the operations they contemplate performing on me."

He remained at Mt. Gretna for a few weeks, spending some time each day in the woods with an arrow-throwing stick and a bow. Such experimentation made necessary certain revisions in the article on the evolution of the arrow which he had prepared for publication in the American Anthropologist, and he found himself "writing for dear life" even on sick leave.

Back at his desk in Washington by the middle of August, Cushing was now busy putting the final touches on an oral version of his paper on the development of the arrow. He had decided to use it as his vice-presidential address before Section "H" of the American Association for the Advancement of Science in the meeting at Springfield, Massachusetts, on August 29. At this meeting Cushing made himself conspicuous by arising from the audience during one of the sessions to question the interpretations of the veteran Ohio archaeologist and publisher of the American Antiquarian, Stephen D. Peet, whose topic was "The Paleolithic Age in America." Peet, who was also a clergyman, was attempting to explain the mysticism not only of the mound-builders of the Ohio Valley but also of the ancient peoples of Mexico and Central America. Cushing stood up, challenged the speaker, and walked to the

29 Letter of Aug. 8, 1895 on file at the University of Pennsylvania.
platform to discuss the paper in great detail with Peet. 30

Throughout September and into the next month Cushing watched with keen anticipation the progress of negotiations between the University of Pennsylvania and the Smithsonian. Dr. Pepper and Culin were formulating a plan with Dr. Goode, Major Powell, and Professor McGee for a large-scale expedition to Florida under Cushing's supervision. On October 19 Powell notified Cushing that the plan had been approved. It called for the University of Pennsylvania to bear all expenses of the expedition, and for the Smithsonian to make available the services of Cushing as director. The collections of the expedition were to be divided between the two institutions. Powell forewarned Cushing that all his field notes, as well as his final reports, were to be regarded as public property; the exclusive right to publication of such reports, the Major declared unequivocally, could not be surrendered by the government. 31 Cushing was instructed to draft a formal letter of acceptance in which it was made clear that the University of Pennsylvania, as financial sponsor of the expedition, would receive not only a full series of specimens but also those most unique—and that the university would have choice in all cases of duplication of artifacts. The agreement


31Memorandum to Cushing, Oct. 19, 1895 on file at the University of Pennsylvania.
was made final on the 9th of November. A few days later, in a personal letter to Pepper, Cushing praised Powell's attitude. The Major, he wrote, was "wholly disinterested and generous about it all, as I supposed he would be." 

Cushing began at once the sundry preparations for the Florida expedition, and for the next two weeks he worked with feverish speed. He obtained postal privileges, secured railroad passes, purchased expendable equipment such as oilskins and shovels, requested a typewriter and photographic apparatus which would cost exactly $399.00, and generally lost himself in a mountain of paperwork that consisted of vouchers, sub-vouchers, receipts, and pay records. Through the Coastal and Geodetic Survey he was able to get, with Powell's help, some fifty dollars' worth of charts, a plane-table with alidade, and other engineering aids. Finally he hired a crew, selecting the Smithsonian staff member Carl Bergmann as his chief assistant. By the end of November everything seemed in readiness. It was his hope, he told Pepper, to leave Washington on the 1st of December and to remain at least three months in the field.

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32 Letter of Nov. 9, 1895 on file at the University of Pennsylvania.
33 Letter of Nov. 12, 1895 on file at the University of Pennsylvania.
34 Letters to Pepper, Nov. 15, 22, and 25, 1895 on file at the University of Pennsylvania.
As it happened, the expedition did not leave the capital until December 5. A Washington newspaper reported the embarkation in colorful detail under the heading: "F. H. Cushing Off: The Ethnologist Starts to Explore the Remains of an Ancient People on the Florida Keys." Cushing's immediate destination was Jacksonville, where arrangements had been made for him to draw $1,500 cash from the National Bank of Florida. Within a few days he would be joined at St. Augustine by his assistants, who had sailed from New York on the steamer Comanche. Reaching Jacksonville on a Saturday afternoon, Cushing was greatly annoyed to find that the bank had closed at twelve o'clock. Other inconveniences caused further delay, and characteristically Cushing became greatly irritated before he was finally able to muster his full crew at St. Augustine and load all necessary gear aboard the chartered schooner City of Jacksonville. This done, the expedition sailed southward with Pine Island, in Charlotte Harbor, its ultimate destination.

From the outset the Florida expedition was plagued with difficulties, some real and some imaginary. Cushing reported them all in a stream of letters to Pepper and Culin. The coastal vessel Silver

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35 Unidentified newspaper clipping, dated Dec. 6, 1895, on file at the Smithsonian Institution.

36 Letters of Joseph Norris to Pepper, Dec. 5, 1895; and Cushing to Pepper, Dec. 8, 10, and 17, 1895, all on file at the University of Pennsylvania.
Spray, which was scheduled to pick up the crew in Charlotte Harbor, had not arrived until Christmas Day, and then Cushing had to outfit it, personally superintend the loading, and pay all costs in cash. Meanwhile Cushing had scoured the surrounding country on horseback and had located some shell mounds near Tarpon Springs. He sought out Clarence B. Moore, who was working nearby, and assured the pioneer Florida archaeologist that the new expedition would not encroach on territory already under investigation. So far he was quite pleased with the work of his assistants and particularly with that of the artist, Sawyer, who was busy making sketches of skulls, flint dagger-blades, and other artifacts. The field work was progressing satisfactorily, and Cushing was very excited by the discovery of the "crumbling remains" of a stone priestess with a phallic plate of copper, a gorget, pendant, and pearl beads. Yet he was disappointed that the practical affairs of the expedition were taking so much of his valuable time. His hours were long, he complained, and his health only fair. Frequently he arose at dawn, and regularly he found it necessary to work by the light of a lamp until midnight. "Heavens, how I wish this Expedition had more means!" he exclaimed in January of 1896. If only he had the time and money, he was sure he could find enough of significance in Florida to connect the aboriginal South with the Ohio Valley. 37

37 Letters to Gulin and Pepper, Jan. 3, 13, 1896 on file at the University of Pennsylvania.
Late in January Cushing reported that the Silver Spray had been run aground on a sandbar by an inexperienced pilot, and the recurring low tides now kept her from moving out. This letter, which apparently did not reach Pepper in Philadelphia, contained a polite request for more funds. His physical condition was worsening, he said, and his stomach pains were doubtless the result of worry. Meanwhile he was cataloging and packing the artifacts thus far collected, and these would be shipped by rail to Philadelphia in thirteen barrels and thirty-seven boxes. A few weeks later he wrote to say that the vessel had finally reached St. James City, at the foot of Pine Island in Charlotte Harbor, and was now anchored in Big Marco Pass. Here Cushing had found a veritable shell city with great embankments, platforms, canals, and lagoons. Some pottery and wooden objects had already been collected. 38

On the 1st of March, having had no reply to his request for additional funds except a cryptic telegram from Pepper, Cushing resorted to a tactic which he used on his superiors at the Smithsonian while in New Mexico a dozen years earlier. In a confidential letter to Pepper, he now declared his intention to seek support elsewhere if the University of Pennsylvania did not respond at once. He would insist on his rights as a scientist, he said, and solicit aid from some other source

38 Letters to Pepper, Feb. 21, 22, and 26, 1896 on file at the University of Pennsylvania.
in order to carry on the work for another season. He could not "instantly" assess the significance of the expedition because he was working day and night to keep it going; but as soon as possible he would submit a progress report. In the meantime, he told Pepper, "any further communication of the nature of your telegram, involving as that did my personal repute," should be sent by "sealed" mail. 39

A week later the misunderstanding was cleared up. Pepper had not received all of Cushing's correspondence, and the letter containing his original request for more funds was among those which had miscarried. 40 By the third week of March Cushing had the money he needed; he could now finish his explorations with dispatch. 41 One of his latest finds was a closed shell with a delicately wrought painting of a dancer on the inside. It had been turned up on the beach under four feet of peat. Next he uncovered a hardwood statuette of a lion equal in quality of workmanship, he thought, to "any from Egypt or Assyria." 42 Then his crew discovered a series of masks on which the painting was preserved—a rare collection, he told Pepper, which would stand alone.

39"Confidential" letter to Pepper, Mar. 1, 1896 on file at the University of Pennsylvania.

40Letter to Pepper, Mar. 7, 1896 on file at the University of Pennsylvania.

41Letters to Pepper, Mar. 20, 22, 1896 on file at the University of Pennsylvania.

42Letter to Pepper, Mar. 14, 1896 on file at the University of Pennsylvania.
alone among its kind. Early in April, as the expedition was finishing its field work, Major Powell appeared at the site of the last excavations. Much impressed, he pronounced Cushing's finds "unique" and declared that his ethnologist had discovered "a new culture." Powell's words of praise and encouragement provided just the kind of stimulant that Cushing required at this moment. He shut down all field work and began the difficult task of packing the collections. However others might evaluate it, the Florida expedition was, in the judgment of its director, a great success.

Regardless of how successful he adjudged his field work, there was always some sadness for Cushing in the business of closing an expedition. The tasks of cataloging and packing always depressed him, and never more than at those moments when he handled an artifact and allowed himself to imagine even better specimens lying undiscovered at a nearby site. This time it took fully two weeks to complete the packing of the specimens on hand. Many of them required very special attention, for they had been buried in brine-soaked peat and marl for centuries and could not be dried too rapidly. Some would quickly warp if exposed for too long a period to the open air. These had to be covered with dry sand for a certain time, then placed under

43 Letter to Pepper, Apr. 2, 1896 on file at the University of Pennsylvania.
44 Letter to Pepper, Apr. 10, 1896 on file at the University of Pennsylvania.
cloths on a shelf and left there to lose moisture very gradually. These preparations were carried out under Cushing's minute supervision, and much of the actual work he did himself. By the end of April the difficult job was finished, and Cushing was ready to leave for Washington.  

He expected to reach the capital on Wednesday, May 13, and go directly to the Washington residence of Mrs. Phoebe Apperson Hearst, wife of the Western mining magnate whose fortune was reputed to be among the greatest in America. Mrs. Hearst, who was famous for her philanthropic work and intensely interested in ethnological research and interpretation, had invited the Cushings to spend a few days with her. Cushing hoped that Pepper would meet him in Washington on the following day, the 14th, for a conference. He was tired, he told the doctor, and suffering again from stomach pains—but the discoveries of the Florida expedition made him forget every discomfort. He was gloriously happy because he had been able to do what he was born to do—anthropological investigation in the field. As he expressed it in a letter some months later, field work meant more to him than all else. "Exploration," he wrote, "is the breath of my life. It, far more than study work,

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45 Letters to Pepper, April 24, 27, 1896 on file at the University of Pennsylvania.

46 Letters to Pepper, May 10, 11, 1896 on file at the University of Pennsylvania.
is the line of all my tendencies, and has been, ever since the runaway days of my boyhood."\textsuperscript{47}

\textsuperscript{47}Letter to Pepper, Sept. 7, 1896 on file at the University of Pennsylvania.
CHAPTER X

THE FINAL YEARS

Shelter Island

A million years ago or more
Thou wert a mountain range ashore
Far to the northward. Then behold!
The ice-kings of the land of cold
Came down and launched their crystal fleet.
The mountains vanished 'neath their feet,
And treasure loads of stone and store
Of earth-dust from their wrecks they bore;
And with this land-begetting lade
The ballast of their ships they made.

F. H. C. *

No sooner had Cushing returned to Washington on May 13, 1896, than he found himself again the object of intense journalistic curiosity. He had fully expected that this would be the case. During his last weeks in Florida, he had received persistent inquiries from correspondents who were eager to break a story on the unique discoveries of the expedition; and several newspapermen were anxiously awaiting his arrival in Washington. He now eluded them only with the greatest difficulty. He "crept" into the city, went into hiding at Mrs. Hearst's home, and sent a messenger to the Bureau to pick up his accumulated mail. Since Dr.

* Cushing, Tenatsali's Leaves, p. 8.
AN OIL PORTRAIT OF CUSHING BY THOMAS HOVENDEN

Courtesy of Bureau of American Ethnology,
Smithsonian Institution, Washington, D.C.
Pepper was quite worried that a story on the Florida finds already had leaked to the press, Cushing wrote at once to assure him that the crew had been duly cautioned against loose talking. The only possible explanation for a leak was that someone had overheard Major Powell expressing his enthusiasm, for the "Dear Old Major" had been unrestrained in praise of Cushing's work in Florida. Some eavesdropper may have talked to a local reporter. "They are not all my friends there," he admitted. In his crew there were a few disgruntled persons who "certainly would have talked had they supposed it would annoy me. . . ." ¹

A few days later Dr. Pepper was briefly in Washington, but Cushing did not see him. Perhaps it was Pepper's passion for secrecy that prevented a meeting. Slightly annoyed, Cushing wrote to his sponsor:

> It is always pleasant to see you, even your back when not turned on one; but I own it was exasperating to get up at the break of day, read Bartram's *Travels* whilst awaiting summons for your departure, go down to find out what had become of the summons, and see your carriage roll around the corner. I followed you down to the station on my wheel and was rewarded by seeing your left hand through the car window. I suspect there may have been a plot against my being called, and if so I have nothing further to say only that I did want to see you. ²

All was taken in jest, however, for Cushing soon had an offer from Pepper to stay at his house in Philadelphia while the doctor was away to California for several months. Since the Florida collections had been shipped to the

¹ Letter to Pepper, May 13, 1896 on file at the University of Pennsylvania.
² Letter to Pepper, May 17, 1896 on file at the University of Pennsylvania.
University of Pennsylvania, Cushing would have to go there to work on them.  

Cushing accepted the invitation, but late in May he was ill again with bowel irregularities. His condition worsened, and by the middle of June he had tired to the point where he could not hold a steady pen. At Pepper's suggestion he now went again to the mountains of Pennsylvania for a rest. The high country did Cushing less good this summer than the previous one, however, and toward the end of July he retreated to the town of Haven on the coast of Maine. Mrs. Hearst meanwhile was augmenting his regular salary with a contribution of one hundred dollars per month.

In a cool and commodious Maine farmhouse with his wife at his side, Cushing regained strength and accomplished a good deal in the month of August, 1896. On certain days he kept two stenographers busy by dictating as many as three thousand words. He had his Florida notes before him, as well as much correspondence that required close attention. One incoming letter contained a curious proposal. A syndicate headed by J. M. Kremer of Philadelphia wished to acquire St. James City, at the tip of Pine Island in Charlotte Bay, Florida, to add to four thousand acres

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3 Letter to Pepper, May 22, 1896 on file at the University of Pennsylvania.
4 Letter to Pepper, Aug. 2, 1896 on file at the University of Pennsylvania.
5 Letter of Pepper to Clarence H. Clark, June 16, 1896 on file at the University of Pennsylvania.
already controlled there. The idea was to create an attractive location for yachting and tropical fishing, and the syndicate had expended $150,000 toward this end. Krearner hoped that Cushing would endorse a plan to solicit funds from certain "patrons of the arts" who had become interested in Florida as a result of the recent archaeological discoveries. In reply, Cushing told Krearner that anything he could truthfully say about Pine Island he would be glad to say; then in reporting Krearner's plan to Pepper, he became somewhat carried away with an urge to describe in great detail the wonders of St. James City. Six weeks passed before this letter caught up with Pepper in California. The doctor counselled Cushing to be careful. Offer advice and encouragement to Krearner, he suggested, but avoid involvement of any kind.

Another matter interested Cushing far more. Late in August Pepper had written to tell what he had just heard of a current project to undertake some large-scale archaeological exploration in Mexico. This news greatly excited Cushing, who could hardly bear the thought of such an expedition leaving without him! The plan to excavate in Mexico was well conceived, Cushing wrote in reply, and in fact he himself had devised such a plan while digging in southern Arizona on the Hemenway expedition. There he had found an actual line of connection between the

6 Letter to Cushing, July 27, 1896 on file at the University of Pennsylvania.
7 Letter to Pepper, Aug. 2, 1896 on file at the University of Pennsylvania.
"desert and aridian" cultures and the highly developed cultures of interior Mexico. Cushing went on to compose a letter of twenty-one pages explaining this relationship. The builders of the Casas Grandes of Chihuahua, he declared, were but a southern extension of the ancient peoples of the Salt River Valley. In turn, these remains in northern Mexico were related to those of Tula and Mitla. "They have elements in common," he insisted, "which . . . show common derivation."8

No other document displays so well the principal tenet of Cushing's thinking or so fully reveals his pioneering genius in American science. In this letter is embodied one of the foremost theories of modern anthropology—the premise that most of the native cultures of North and Central America could be related to one another. Cushing called it the "great arch" reaching from the Pueblo country of the Southwest to Central America on the one side, and thence from Yucatan and Florida to the Ohio River on the other. He envisioned a master archaeological program to excavate in all these areas over a period of time, perhaps a lifetime—and hopefully his! He pointed out that he had worked in the pueblos of New Mexico, in the buried cities of Arizona, and in the shell cities of Florida. There were several men, of course, whose professional skill he knew to be greater than his own, but none had worked so widely in the field or had gained both ethnological and archaeological

8Letter to Pepper, Sept. 7, 1896 on file at the University of Pennsylvania.
experience; and he could not think of anyone else with eyes open to the largest possibilities in both "prehistoric ethnography" and museum representation. If only he had the opportunity to devote the rest of his life to exploration! Such exploration would validate the theory of the "great arch" and prove conclusively the common origin of the Indians of America.9

Even as he outlined his masterplan, Cushing must have realized that no amount of financial support would ever enable him personally to carry it out. Although he was not yet forty years old, his deteriorating physical condition would always prevent it. As usual, however, quiet and rest restored him temporarily, and in September he came down to Washington for the annual meeting of the American Association for the Advancement of Science. Serving as chairman of a section, he was proud that his sessions had been pronounced by the general council—as well as by the press—as the most successful since anthropology had taken its place in that organization.10 Late in the month he was back in Maine and too ill even to read. He was "constantly troubled," he wrote Pepper, with a "roaring in the head on the right side, and lameness in the left shoulder." He continued to believe that bad food was the cause, but at Pepper's insistence he now cut his tobacco "to a straw" and limited his

9Ibid.

10Letter to Pepper, Sept. 9, 1896 on file at the University of Pennsylvania.
coffee to one cup at breakfast. Worse still, he had been having fits of wakefulness and despondency between three and four o'clock every morning. Yet he had his good days, and he kept at his work. By now he had produced more than a thousand typewritten pages on the Florida explorations.  

With the coming of cold weather in October, Cushing packed his materials and reluctantly took leave of the Maine farmhouse which had been his hideaway for almost three months. He thought of spending the winter in Philadelphia, then decided instead to return to Washington to prepare some appropriate remarks on the career of Dr. Goode, late Secretary of the Smithsonian. Goode had died on August 19, 1896, having just finished a massive semi-centennial history of the Institution; and Cushing had been asked by Dr. George Henry Horn, president of the American Philosophical Society, to arrange a special commemorative session for the next meeting of that organization. On the first Friday in November, therefore, Cushing was in Philadelphia for this occasion, at which time he also delivered an informal paper on his Florida discoveries which provoked a good round of discussion. With an invitation from the editor of the Society, Dr. Persifor Frazer, to publish the paper in the next volume of Proceedings, he hastened back to Washington to

11 Letter to Pepper, Sept. 20, 1896 on file at the University of Pennsylvania.

work on the manuscript. Over the next few months Cushing and the officers of the Society engaged in a frustrating correspondence, finally quibbling over fifty cents of difference in the cost of illustrative material to accompany the projected article. The paper was not published.

In January, 1897, Pepper visited Cushing in Washington and found him suffering from stomach pains so severe as to cause fainting. This time the doctor cut off entirely his tobacco and coffee. On the 20th of that month Cushing rose from his bed to speak before the Board of Indian Commissioners on a favorite subject—the necessity of understanding the American native before attempting to instruct him in the white man's way. Even while ill, Cushing could be very persuasive on this theme. A month later he appeared in public again, addressing the first annual meeting of the National Congress of Mothers then in session at Washington. At two-thirty on Wednesday afternoon, February 17, Cushing began to speak on "Primitive Motherhood," and for the next hour the ladies listened to his every word. Drawing on his particular knowledge of the Zuni, he traced their course from savagery to barbarism.

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13 Cushing to Horn, Dec. 26, 1896; Horn to Cushing, Jan. 6, 1897; Cushing to Frazer, Jan. 7, 1897; Frazer to Cushing, Jan. 17, 1897; Cushing's telegram to Frazer, Jan. 18, 1897; Frazer's telegram to Cushing, Jan. 19, 1897; and Cushing to Frazer, Feb. 17, 1897, all on file at the American Philosophical Society.

14 This paper, entitled "The Need of Studying the Indian in Order to Teach Him," was published in the 28th Annual Report of the Board of Indian Commissioners (Washington, 1897), and privately reprinted at Albion, New York, later in the same year.
to rational civilization, ascribing to the Zuñi woman full credit for this development. Then, following the tenets of Lewis Henry Morgan, he emphasized the general importance of the woman in primitive societies. To illustrate his major points he used Zuñi examples. In intricate detail he described the ceremonies of the Zuñi on the occasion of childbirth, and in very simple terms he explained the underlying beliefs and taboos. It was truly a virtuoso performance. 15

Early in March, at Pepper's suggestion, Cushing came to Philadelphia and took a large room in the Stratford Hotel on Walnut Street. Here he hoped to work without interruption, and by using secretarial help he might soon be able to complete the Florida report. But within a week he was beset and badly agitated by one of the strangest attacks ever made on his professional reputation. Rumors and aspersions on his scientific integrity had been rampant since his return from Florida, most of them resulting from the fact that the collections were closed to the press as well as to the public. But William Dinwiddie, a young Philadelphia newspaperman with a penchant for archaeology, had managed to see one artifact which aroused his suspicion. It was a decorated shell in which the artwork had been accomplished in black paint. Dinwiddie, an expert photographer, took a picture for proof, and then made a public

15 This address was published in Work and Words of the National Congress of Mothers: First Annual Session...February 17-19, 1897 (New York, 1897). Cf. L. H. Morgan, Ancient Society (Chicago, 1907), p. 18.
statement to the effect that Cushing was a fraud. The black paint, Dinwiddie claimed, ran over a barnacle on the shell, and therefore it must have been applied after the shell was recovered. Cushing wrote immediately to Samuel P. Langley, the new Secretary of the Smithsonian, to request a formal inquiry by an impartial committee. Langley was reluctant to take this step; instead he asked Major Powell to look into the matter. Powell, who was away on a field trip, returned to Washington at once and reported to Langley. The artifact, he declared, was unquestionably genuine. He himself had been to Florida to look at Cushing's collections, and he remembered the same black paint on other objects. An analysis of the pigment had shown it to be the gum of a rubber tree. He had known Cushing for twenty years in the field and in the office, Powell said, and the integrity of his ethnologist was unimpeachable.

Langley now replied to Cushing, enclosing a copy of Powell's statement. The Smithsonian was satisfied that Dinwiddie was simply in error, and therefore it would not be necessary to hold a hearing. On the same day that he received Langley's letter, Cushing sent a full explanation to Dr. Pepper in an effort to vindicate himself completely.

16 Letter to Langley, Mar. 12, 1897 on file at the University of Pennsylvania.

17 Letter of Powell to Langley, Mar. 18, 1897 on file at the Smithsonian Institution.

18 Letter to Cushing, Mar. 20, 1897 on file at the Smithsonian Institution.
and make his position clear to all. He would have preferred a public airing of the charge, but he was grateful to the officials of the Smithsonian for the confidence they had displayed in him. As it happened, the final witness in Cushing's defense turned out to be Carl Bergmann, his assistant in Florida, who recalled the very day that the shell in question had been discovered. As Bergmann remembered it, a curious lady visitor had touched the moist pigment on the shell with her finger, and Cushing had become quite angry.

A public disavowal of the Dinwiddie charge probably would have done Cushing's reputation some good at this moment, for rumors continued to circulate. A few weeks later his old friend Sylvester Baxter, writing from Massachusetts, mentioned that he had just heard another accusation. It was being said that Cushing had "manufactured" a number of "jewelled toads" in his office at the Bureau. Baxter offered to do what he could to combat the rumor, but evidently it did not especially worry Cushing. He made no request for an inquiry. Possibly the matter was already known to Powell, for at one time Cushing had repaired an inlaid artifact representing a frog. Still it was most annoying to a person

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19 Letter to Pepper, Mar. 22, 1897 on file at the University of Pennsylvania.

20 Letter to Langley, Mar. 27, 1897 on file at the Smithsonian Institution.

21 Letter to Culin, May 8, 1898 on file at the University of Pennsylvania.

22 Letter to Cushing, May 2, 1897 on file at the University of Pennsylvania.
of Cushing's sensitivity to have his name abused in this way, and doubtless he lost some sleep over it.

However it may have affected his health, the sniping of critics did not deter Cushing from his work at this time. He seemed more anxious than ever to demonstrate his worth as a scientist. Before a meeting of the American Philosophical Society in May, 1897, he discussed at great length a paper on shamanism by Dr. J. Cheston Morris, noting the remarkable similarity between the observations of Morris in the Ohio Valley and his own in New Mexico. Cushing's remarks, which were published in the Proceedings of the Society and then reprinted privately, testified again to his strong belief in a basic connection between the primitive groups of what he liked to call the "great arch." His thinking on this subject was deepening all the time, and he longed for another opportunity to explore his theory in the field.

Cushing's article on Zuni medicine, appearing in the Science magazine in June, caused a stir of professional excitement that pleased the author, and during the summer and fall of 1897 he worked with renewed vigor. Most of his time was spent either in the

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archaeological laboratory of the University of Pennsylvania or in his room at the Stratford Hotel. Either he was making new notes on the "Marco materials" or adding a new paragraph to the burgeoning Florida report. On the 1st of December he notified Dr. Pepper that he would like to complete the work at his office in Washington. Since Major Powell was anxious for him to return to his regular duties, Cushing hoped that the Florida collections might now be shipped on loan to the Bureau and the final classification and division of the materials be made there. 25

While he awaited word on the disposition of the Florida collections, Cushing received a piece of news that aroused again his instinct for field work. Professor Warren King Moorehead, the archaeologist at Ohio State University, had written to say that he and his sick wife were planning to spend the rest of the winter in Phoenix, Arizona. Moorehead thought he might like to undertake some archaeology in the area. Cushing replied immediately, asking Moorehead if he would be willing to excavate specific ruins in the Salt River Valley if a modest stipend could be provided. When Moorehead indicated that a salary of fifty dollars per month would be enough, Cushing strongly urged Pepper to designate funds for six months of field work in Arizona. Charles A. Garlick, who had been Cushing's topographer on the Hemenway expedition,

25 Letter to Pepper, Dec. 1, 1897 on file at the University of Pennsylvania.
still lived in Phoenix and would be available to assist Moorehead. Certainly Cushing envisioned such a project as the preliminary step in a new expedition to the Southwest under the auspices of the University of Pennsylvania, for he nominated himself as "general director" of Moorehead's survey. Much to his disappointment, the plan did not materialize.

By the first week of February, 1898, Pepper and Culin had worked out an arrangement with the officials of the Smithsonian whereby the Florida collections would be loaned to the Bureau of American Ethnology so that Cushing could finish his study in Washington and on the payroll of the government. The materials were to be catalogued under Cushing's immediate supervision, with the proper allotments made to the University of Pennsylvania as specified in the original agreement of 1895. The whole collection would be in Washington for six months or more, but was to be returned to the University on demand. Cushing signed a receipt for the whole collection, said goodbye to Pepper and Culin on February 12, packed until midnight, and left for Washington on

26 Letters to Pepper, Dec. 23, 29, 1897 on file at the University of Pennsylvania.

27 As it happened, Moorehead did some excavation on his own and published several articles. The most important of these appeared in the American Archaeologist in August, 1898, under the title, "Some Objects from the Salado Valley, Arizona." A later work, his Narrative of Explorations in New Mexico and Arizona (Andover, Massachusetts, 1906), paid high tribute to the pioneering efforts of Cushing.
the Pennsylvania Railroad. He had planned to be in New York on the 18th for an address by the noted Norwegian explorer and ethnologist Carl Lumholtz at the American Museum of Natural History, but now he could not attend; he had to be in Washington to receive the shipment of his priceless "Marco materials." Lumholtz was scheduled to speak on the Huichol Indians of Mexico, and it greatly disappointed Cushing to miss the occasion. In a letter expressing his regret, he praised the work of Lumholtz in almost poetic terms.

As soon as the Florida materials had arrived safely at the Smithsonian, Cushing submitted to his superiors a prospectus for the classification and division of the entire collection. He planned to assign a number to each piece and to keep a complete inventory, he told Major Powell and Professor McGee, so that "no question shall arise ... in case, let me say, of my illness or death." He went immediately to work, but soon the spring dampness had brought on his usual series of attacks. On the days when he could not come to his office—which were increasingly frequent by the end of May—he worked in bed on the Florida

28 Letters to Culin, Feb. 8, 12, 14, 1898 on file at the University of Pennsylvania.

29 Letters to Isaac M. Hayes, Jan. 12, 23, 1898 on file at the American Philosophical Society.

30 Letter of Feb. 18, 1898 on file at the American Philosophical Society.

31 Letter to Culin, Feb. 28, 1898 on file at the University of Pennsylvania.
Knowing that he would now need more time than that specified in the loan agreement, he drafted a detailed statement and mailed it to Dr. Pepper. Before Pepper had given formal approval to the requested extension, Cushing received the sad news of the doctor's death. Then, early in July, he learned that his aged father was seriously ill. This accumulation of bad tidings depressed Cushing to the point where he could not sleep, and on the advice of his physician he now went to his familiar retreat in Lebanon County, Pennsylvania, for rest. Powell and McGee understood perfectly, and promptly sent to Mt. Gretna the supplies which Cushing needed for what work he might be able to do while recuperating.

Cushing was still resting at Mt. Gretna, when Culin visited Washington in September to look into the progress of the work on the Florida materials. While at the Smithsonian he received a disturbing letter from Mrs. Sara Yorke Stevenson, one of the founders of the Archaeological Association of the University of Pennsylvania and now the president of its Board of Managers. Mrs. Stevenson, a talented and rather formidable woman of fifty who had lectured and travelled extensively and could claim much credit for the establishment of the Museum of Science and Art in Philadelphia, wished to know exactly when to expect

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32 Among these were "Tomahawk and Calumet" and "Shield and Gorget."

33 Letters to McGee, July 20 and Aug. 3, 1898 on file at the Smithsonian Institution.
the return of the loaned collections. Culin replied courteously that all was going well, but in the meantime Mrs. Stevenson had written twice to Cushing directly. She wanted his assurance that the Florida artifacts were going to be sent back at once to the University of Pennsylvania. Cushing did not respond to her first letter, which was pointed enough, but on the 14th of October he wrote at length to explain the situation. He had been ill, he said, and desperately unsettled as the result of personal difficulties; he would not be back in Washington for several weeks, and then would need sufficient time to finish his work on the materials; he was no longer on the payroll of the University, and the Bureau was graciously providing the funds by which the vast Florida collection was finally being processed and analyzed. He hoped, therefore, that Mrs. Stevenson would be patient and fully recognize the fact that the artifacts were safe and in competent hands.

Mrs. Stevenson was not at all satisfied. With feminine persistence she wrote several times to Cushing after he had returned to his office in November, but apparently he did not reply. This kind of pressure he simply could not tolerate, and doubtless he complained bitterly to Powell and McGee that his integrity was again being questioned.

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34 Letter to Mrs. Stevenson, Sept. 23, 1898 on file at the University of Pennsylvania.

35 Letter to Mrs. Stevenson, Oct. 14, 1898 on file at the University of Pennsylvania.
On February 1, 1899, Mrs. Stevenson finally addressed a letter to Powell insisting that the Florida artifacts which belonged to the University of Pennsylvania be returned within one month. Powell would not accept this ultimatum. He was unwilling to take the materials away from Cushing because he was personally pleased with the progress, and moreover he was convinced that Cushing's work bore the stamp of "genius." Powell wrote:

Mr. Cushing, by whose profound insight into phenomena which have been overlooked by all other scientific men who have examined the region in which his finds were made, has by arduous labor made a collection unsurpassed in scientific importance in the history of archaeology. . . . His right to the fruit of his discovery, as a contribution to science, is paramount.  

Probably at Powell's suggestion Cushing also now wrote to Mrs. Stevenson, politely reminding her of the long record of friendly association between the University of Pennsylvania and the Bureau of American Ethnology. Such cooperation, he declared, was made possible by mutual respect and understanding between the late Dr. Pepper and himself, and he hoped that it might continue.  

The communications of Powell and Cushing did not deter or placate Mrs. Stevenson. She immediately wrote to Professor McGee

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36 Letter to Mrs. Stevenson, Feb. 3, 1899 on file at the University of Pennsylvania.

37 Letter to Mrs. Stevenson, Feb. 6, 1899 on file at the University of Pennsylvania.
to demand copies of all correspondence in the files of the Bureau which related in any way to the Florida expedition, the collections, or the projected report. McGee was well aware of the situation, of course, and responded courteously with a brief review of what had transpired. Finally Mrs. Stevenson's agitations began to worry Powell, who was always aware of the necessity of a good public image for the Bureau. The fact was that Cushing was working hard on the collections, but he could not work every day because of his failing health. His progress was satisfactory to both Powell and McGee, but by no means was it rapid. Powell decided, therefore, to negotiate a new agreement with the University of Pennsylvania. Early in June he drew up a memorandum which proposed that Cushing and Gulin, representing the Bureau and the University, should assemble a "type collection" of outstanding specimens for display in the University museum. These artifacts were to be sent to Philadelphia by the end of August; the rest of the materials were to go to the University and would be forwarded as soon as they had been selected.

The new agreement also stipulated that Cushing was to receive a cash payment of four hundred dollars in full settlement of all claims

38 Letter to Mrs. Stevenson, Feb. 13, 1899 on file at the University of Pennsylvania.

39 Memorandum dated June 3, 1899 on file at the University of Pennsylvania.
against the University. With this in hand, he left Washington on June 29 to spend the summer in Maine. Here in his old farmhouse at Haven, isolated on a seaside hill, he planned to work exclusively on the Florida report and at last get it done. 40 By the end of August, however, he was much depressed and unable to concentrate. The officials of the University were again complaining that he was too slow--and, so he thought, also indirectly impugning his professional character. 41 Nothing had gone well: his photographers had failed him, his artists had let him down, the printers had disappointed him. The whole thing, he wrote plaintively to Culin, was "bitter business" which he deeply regretted without blaming anyone but himself. 42

Setting aside the Florida manuscript in September, Cushing spent some days making plaster reproductions of certain artifacts for the University. On this he had to ask for Culin's help; his first casts had failed because of unsuitable local materials. Then he turned to the preparation of a series of lectures which he had agreed to give in Brooklyn in October and November. 43 On the 20th of October he came

40 Letters of June 30 and July 3, 1899 on file at the University of Pennsylvania.

41 Letters of Aug. 22, 24, 28, 1899 on file at the University of Pennsylvania.

42 Letter to Culin, Sept. 4, 1899 on file at the University of Pennsylvania.

down to Brooklyn for the first lecture, and between his scheduled appearances he made a trip to western New York to attend to some family matters. In the middle of November he was visiting old friends in Albion. A month later he was back at his desk in Washington. The Florida report was still unfinished.

If either Major Powell or Professor McGee were to have walked into Cushing's office in January of 1900 and asked him bluntly why he had not yet finished the Florida manuscript, they could easily anticipate the answer. His reply would have been the old refrain that he simply needed more time to study the collections. Both men, however, were well aware of a collateral reason. Cushing's mind was no longer on the Florida materials; he was again thinking and dreaming about new field work. While in Maine he had gone a few times into the woods and had found some sites which greatly interested him. He now asked Powell to join him in a preliminary survey of the area. Powell knew Cushing, and long had known that his instincts were unerring. Despite the rigors of the winter season, therefore, he and Cushing spent a number of days examining a few mounds which on excavation brought forth a quantity of singular specimens, including pieces of European armor.  

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44 Letter to Culin, Nov. 15, 1899 on file at the University of Pennsylvania.  
The prospect of field work in a new area excited Cushing to fever pitch. At forty-three he was as enthusiastic for fresh investigation in Maine as he had been twenty years earlier in New Mexico. In March he was back in Washington and busily making plans. Before anything else could be undertaken, he realized, he would have to restore the Florida materials to the University of Pennsylvania. Once this obligation was fulfilled, perhaps the Bureau would allow him to go to Maine for several months of exploration. The summer season would be ideal; for once in his life, Cushing thought, he would be able to take to the field in a climate suited to his health. On Wednesday evening, April 10, 1900, he and his wife sat at dinner in their Washington home. Their talk was animated. As they discussed his developing plans for a summer expedition to Maine, Frank Hamilton Cushing choked on a fishbone, hemmoraged, and died before help could be summoned.

Washington was stunned—the savant was dead. A short life which had survived continuing illnesses was accidentally snuffed out in an instant; a pioneering career in American science was tragically terminated at a moment when its full fruition seemed assured. Friends gathered about Mrs. Cushing to ease her sorrow. Professional societies held memorial services. In response to the wishes of its officers, the Anthropological Society of Washington met in solemn session on April 24 and heard the eulogies of Major Powell, Professor McGee, William Henry Holmes, Stewart Culin, and the Plains ethnologist Alice Cunningham.
Fletcher. Culin, on the verge of tears, was unable to continue his reading. Testimonial statements arrived by mail and telegram from old colleagues and field companions who could not be present. The leaders of American anthropology at the turn of the twentieth century would long remember this man of erratic genius who had blazed so many trails for them. His insight and his instinct for exploration had opened new fields to their view. If finally it would be said that he left much of his most important work unfinished, it would also be said that he attempted more—and actually accomplished more—than any ethnologist of his time. Herein was the greatness of Frank Hamilton Cushing.


47 Letter of Apr. 26, 1900 on file at the University of Pennsylvania.

48 See, for example, Herman F. C. ten Kate’s eloquent statement in American Anthropologist, n.s., vol. 2, no. 4 (October-December 1900), pp. 768-771.


50 The most serious unfinished business, of course, was the Florida collection. Within two weeks of Cushing’s death, his wife saw to it that some of the materials already packed were returned to the University of Pennsylvania; but not until August of 1901 were the last seventeen boxes shipped to Philadelphia. In the meantime a bitter quarrel erupted between the officials of the Smithsonian and the University museum. On September 8, 1900, McGee finally lost all patience and suggested that an arbitrator be appointed to settle the matter. "It really seems to me," he wrote to Culin, "that a molehill is growing into a mountain. . . ." Members of Congress became involved in the dispute on both sides before an agreement was reached. Voluminous correspondence on the matter is on file at the University of Pennsylvania.
Everyone who knew Frank Hamilton Cushing would agree that he was an exceedingly complex man. Like most persons who for some reason may be called "great," Cushing was the perfect paradox in a dozen ways. He was both avid to learn from others and convinced that his own observation was the best teacher, both selfish in his knowledge and eager to disseminate it, self-assured but always in need of assurance, rich in insights and yet capable of gross oversights, energetic and yet dilatory, masterful in planning but poor in execution. At the same time he was deferential and yet temperamental, loyal on the one hand and conniving on the other, egocentric and yet forever solicitous of others, both an exhibitionist and a lover of solitude, persevering and yet easily depressed, courageous to a fault but still much troubled by shadowy apprehensions. His contradictory characteristics are perhaps most readily explained by the workings of three factors in combination. Cushing was possessed of a truly remarkable mind and a ravenous curiosity; he was self-taught and therefore intellectually undisciplined; and he suffered from failing health and physical pain throughout his short life.
He had come out of the woods of western New York to achieve national fame within a few years. His education had been principally the forest. There he had learned to teach himself the rudiments of science by trial and error, by the technique of imaginative experimentation to which he remained constant throughout his career. He had the good fortune to attract the attention of such men as Kennan, Morgan, and Hartt while still a mere boy, and from them he derived his early inspiration. His opportunity came when Baird of the Smithsonian recognized his promise, and at the age of eighteen he was on the staff of America's foremost museum. By listening intently to his seniors, by observing everything, and by voracious reading he quickly mastered the fundamentals of anthropology. Before he was twenty-one he had convinced Baird and Powell that his instinct for exploration should be encouraged, and he was allowed to go to New Mexico. Perhaps he had risen too rapidly for his own good. But the infant science of anthropology was developing rapidly, and able practitioners were in demand.

His experience at Zuni, far beyond the reach of supervision over an extended period, made Cushing what he was. Here he became the "White Indian" in his own mind as well as in the words of journalists. Both his strengths and his weaknesses grew to conspicuous size as he remained at the pueblo. In the role of participant observer at Zuni he developed his investigative skills, acquired patience and tact and fortitude, and became self-reliant to an extreme degree. At the same time
his independence and isolation made him dogmatic, hungry for recognition, and self-pitying. The personal assets and liabilities which Cushing amassed in New Mexico were powerful enough, in different ways, to affect profoundly everything else that he did or tried to do. These assets and liabilities dictated to Cushing through the rest of his career and most especially at its great moments. They were clearly evident in the Hemenway expedition to Arizona and in the Pepper expedition to Florida.

Most of his contemporaries in American anthropology were willing to accord to Cushing the credit that manifestly was due him as a scientist and a promoter of the rarest kind. Bourke, Matthews, ten Kate, Bandelier, Hodge, and other field companions drew heavily on Cushing's knowledge and were inspired by his powers of perception. McGee declared that he had learned more from Cushing than from any other man save one. Powell assessed him as "fertile in hypothesis, fruitful in suggestion, an avant-courier in research, a leader in interpretation." Culin found Cushing's "chief ideal" to be "perfected

1Ray Brandes, "A Dedication to the Memory of Frank Hamilton Cushing (1857-1900)," Arizona and the West, vol. 4, no. 3 (Autumn 1962), pp. 197-200.


3Powell's introduction to Zuni Breadstuff, p. 15. See also the eulogy of A.F. Chamberlain in Journal of American Folk-Lore, vol. 13 (1900), pp. 129-134.
knowledge. Lummis, admiring his relentless pursuit of the unknown, thought him to be unrivalled as an ethnological detective. Even Baird and Pepper, who were sometimes the victims of Cushing's threatening and pressuring tactics, recognized that his only wish was to exploit fully the opportunities of the field. Appreciating this, they were willing to accept his unalterable attitude that a cursory study or a partial excavation was worse than no work at all because it perpetuated romanticism in science.

While they are critical of many of his conclusions, modern anthropologists have come to regard Cushing as a pioneer Americanist of heroic proportions. Few dismiss him as the charlatan in Indian costume once ridiculed by Matilda Coxe Stevenson. That Cushing had the foresight to bring together in one field operation a variety of specialized skills is an example of the largeness of concept which many of his successors have applauded. In the Salt River Valley he saw physical anthropology, archaeology, ethnology, and history as facets of the past to be studied in concert. His interpretations at Los Muertos were not accurate by any means. Yet his basic method of


comparison between the past and the present established the link between archaeological and ethnological investigation which has made possible some of the leading anthropological interpretations of the twentieth century.

While Cushing despised no source of information, he always sought his replies in direct personal experimentation. This was his unique style of exploration made possible, as Bandelier often said, because Cushing thought like an Indian. His contribution lay not so much in establishing his theory of a "great arch" connecting the tribes of North America; it lay first in establishing a method of research, hitherto unknown, which led to connections as well as to discriminations not before noticed. Cushing died a young man. Had he lived two or three decades more, he certainly would have done much to bridge the gap between pioneer and professional anthropology. Doubtless he would have worked closely with William Henry Holmes, who advocated the study of the distribution of pottery along with the designs; with Alfred Vincent Kidder, the founder of the Pecos system of classification; and with a whole vanguard of scholars who have made the Far Southwest the training and proving ground of modern ethnology and archaeology. It may be rightly said that Frank Hamilton Cushing led that vanguard with his original work in the Zuni pueblos of New Mexico and in the buried cities of the Salt River Valley of Arizona.
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   b. Letters to and concerning Frank Hamilton Cushing

III. Miscellaneous Unpublished Materials

IV. Newspapers

V. Government Documents

VI. Published Works of Frank Hamilton Cushing

VII. Other Books, Pamphlets, and Articles

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