

FRANK  
HAMILTON  
CUSHING  
AND THE  
HEMENWAY  
SOUTHWESTERN  
ARCHAEOLOGICAL  
EXPEDITION,  
1886-1889

THE  
Notes and Journal  
of  
Observations and Discoveries  
in  
FRANK  
HAMILTON  
CUSHING  
During the Years  
1887-'88



GROUND PLAN.

Camp Hemmenway



EDITED BY CURTIS M. HINSLEY  
AND DAVID R. WILCOX

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VOLUME 2

*of the multivolume work*

Frank Hamilton Cushing and  
the Hemenway Southwestern Archaeological Expedition,  
1886–1889

# The Lost Itinerary of Frank Hamilton Cushing

Edited by Curtis M. Hinsley  
and David R. Wilcox



The University of Arizona Press  
Tucson

*To Victoria and Susan*  
Once Again

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## Foreword to the Multivolume Work

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The Southwest Center is proud to include in its University of Arizona Press series Curtis Hinsley and David Wilcox's multivolume study *Frank Hamilton Cushing and the Hemenway Southwestern Archaeological Expedition, 1886–1889*. With this work, Hinsley and Wilcox have established—through ingenious documentary recovery, discerning textual selection, and trenchant interpretation—the history of the first major archaeological expedition into the Southwest. In doing so, they also lay the basis for a provocative new historiography of the region. This project of documentation and analysis by an archaeologist and an historian is a classic in the critical study of the Southwest, a monumental work that will serve as the foundation for a fresh understanding of the development of this region. It is, too, a model for the interdisciplinary scholarship that the field of regional studies, at its very best, can produce.

Hinsley and Wilcox have performed a signal service with their work in tracing the rise and fall of the Hemenway Expedition, the role of New England philanthropy in southwestern developments, the details of daily “archaeological camping” in the deserts of Arizona and New Mexico a century ago, and the social bases and cultural consequences of nineteenth-century archaeology. Above all, these are volumes of voices, recalling for us the drama of scientific and aes-

thetic discovery from a nearly forgotten time. *Frank Hamilton Cushing and the Hemenway Southwestern Archaeological Expedition, 1886–1889* combines expedition documents long unavailable; carefully selected personal correspondence and diaries of expedition members and sponsors; a rich visual record of drawings, paintings, and photographs; and the editors' own searching interpretations—weaving all into a tapestry of narrative and commentary. The result is a social history of archaeology and anthropology in the Southwest that draws on contemporary cultural theory to paint a moving personal picture of southwestern pioneers, men and women who contributed to a new concept of the land and its human lineage.

Joseph C. Wilder, Director  
The Southwest Center

## Introduction to the Multivolume Work

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In the fall of 1886, Mary Tileston Hemenway, reputedly the most munificent lady in Boston, agreed to sponsor the Hemenway Southwestern Archaeological Expedition under the direction of anthropologist Frank Hamilton Cushing.<sup>1</sup> Mrs. Hemenway quietly supported many worthy causes, most of them concerned with education and American history, and she was intrigued by Cushing, his Zuñi experiences, and his vision for the future of American ethnology and archaeology. Together they dreamed of founding a private institution in Salem, Massachusetts, the Pueblo Museum for the study of American Indians. The artifact collections of the Hemenway Expedition were to form the nucleus of the museum. Accordingly, in late 1886 Mrs. Hemenway appointed a board to oversee the project, and early the following year Cushing outfitted the expedition and took to the field in Arizona in high hopes of tracing the ancestors of the Zuñis and perhaps even solving larger puzzles of aboriginal migration through the Americas.

By the third year of fieldwork, Cushing's persistent illnesses; growing doubts among board members about his integrity, ideas, and even sanity; and Mrs. Hemenway's own declining health led her son Augustus and the board of the expedition to act. In mid-1889 they fired Cushing and appointed Jesse Walter Fewkes to succeed him as director.<sup>2</sup> For two years Cushing withdrew into serious illness

and depression. Without access to his records, in 1891 he nevertheless began a report, a retrospective daily “itinerary” of the expedition. Then, after two years of intermittent effort, in frustration and disappointment he turned wholly to other interests. He never returned to the Hemenway project or the Southwest, and he never again saw the artifact collections, field maps, catalogs, and other materials—or Mrs. Hemenway. The Pueblo Museum never materialized, and at her death in 1894 Mrs. Hemenway willed the collections (most of which were in storage in Salem) to the Peabody Museum of Harvard University. Several fragmentary studies from the expedition found their way into print, but Cushing’s notes and partial reports were still in manuscript form at his own sudden death at age forty-three in 1900.

Frederick Webb Hodge began his long anthropological career as Cushing’s personal secretary on the expedition, and when he married Margaret Magill in 1891 he became Cushing’s brother-in-law as well. By the mid-1890s Hodge had become a central figure in the Bureau of American Ethnology and the Smithsonian Institution, rising to be the director of the Bureau between 1910 and 1918. He then moved to George Heye’s Museum of the American Indian in New York City (1918–1930) and from there to the Southwest Museum in Los Angeles, which he directed until nearly the time of his death at age ninety-two in 1956. Because of his institutional prominence and his long life (he outlived all other participants by at least two decades and Cushing by more than half a century), Hodge had a profound influence on the reputation of the Hemenway Expedition in the twentieth century.

In the 1930s Alfred Tozzer suggested to Emil W. Haury that he write his dissertation at Harvard on the Peabody Museum’s Hemenway collections, and Haury produced a classic study of late Hohokam ceramics and material culture.<sup>3</sup> The only archival materials he had at hand, though, were those he found at Harvard and a few illustrations at the Brooklyn Museum. In the course of his research he wrote to Hodge at the Southwest Museum. Hodge responded that he had a “considerable body of Cushing’s notes” but that they were “in much of a jumble” and a “mess.”<sup>4</sup> He then proceeded, at some epistolary length, to accuse Cushing, his former brother-in-law, of faking an artifact, a turquoise-encrusted toad. Later, in his foreword to Haury’s book *The Excavations of Los Muertos and Neighboring Ruins in the Salt River Valley, Southern Arizona* (1945), Hodge recounted more stories about Cushing that made light of him and his ideas, creating a strongly negative image. In Hodge’s view, Cushing was “a visionary” who kept few notes,

did not hesitate to exaggerate to gain a point, was a slacker, and suffered from “an overwrought imagination and a species of egotism that brooked no opinion adverse to his own.”<sup>5</sup> Cushing, he further recalled, had “fiddled away his time in making flags for the tents and other useless trifles” at the expedition’s campsites, leaving his field-workers without supervision for weeks at a time.<sup>6</sup> He further implied that if there were few archival remains of the Hemenway Expedition, it was Cushing’s fault. Haury understandably believed Hodge, and so have several generations of anthropologists, archaeologists, and historians.

Today’s evidence about the expedition—its roots, practices, results, and reputation—suggests a complex and quite different story. A remarkably large unpublished record of the Hemenway Expedition did in fact survive—and Hodge, ironically, did much to preserve it. Soon after Cushing’s death, his close friend Stewart Culin, curator at the Brooklyn Museum, obtained Cushing’s personal library and manuscripts from his widow, Emily.<sup>7</sup> In 1921, at a time when his own interests were changing, Culin sent Hodge three crates of Cushing manuscripts, letter books, and related material.<sup>8</sup> Hodge apparently searched through this material, selecting what he thought was most interesting and depositing it at the library of the Heye Foundation at the Huntington Free Library in the Bronx. He took the rest of Cushing’s material (“in much of a jumble”) with him to California in 1930, where it eventually became part of the Southwest Museum’s Hodge-Cushing Papers.<sup>9</sup> In this way the major records of the Hemenway Expedition came to be distributed among the Peabody Museum of Harvard, the Huntington Free Library, the Brooklyn Museum, the Smithsonian Institution, and the Southwest Museum.

After Hodge’s death, the Hemenway records that he had kept in his possession for thirty-five years were opened to scholars at the Southwest Museum. Ray Brandes constructed a pioneering 1965 dissertation on Cushing partly from these materials, and Charles Lange and his colleagues, in their multivolume study of Adolph F. Bandelier’s years in the Southwest, drew significantly on them as well.<sup>10</sup> Joan Mark, in proposing Cushing as one of the critical figures in the history of American anthropology, recalled Claude Lévi-Strauss’s praise for Cushing as a precursor of structuralism; and Jesse Green’s annotated edition of Cushing’s Zuni writings, published in 1979, also brought his ethnographic work renewed professional and public attention.<sup>11</sup>

In short, with the increased interest in Cushing’s place in the history of American anthropology, students of anthropology and the nineteenth-century South-



west turned to the Hodge-Cushing materials and began to recognize their value and depth.<sup>12</sup> At the same time, other relevant documents surfaced, such as the Hemenway family archives at the Peabody-Essex Museum in Salem and Cushing's personal diaries.<sup>13</sup> Still, the Hemenway Expedition remained obscure and puzzling, its meaning lost in the fragments.

Wilcox, an archaeologist, had had the opportunity in 1979 to excavate a large portion of a site in Tempe that Cushing, in 1887, had named *La Ciudad de los Hornos* (City of the Ovens).<sup>14</sup> Curious to learn what Cushing and his party had seen before the Salt River Valley was plowed or covered over by urban landscape, Wilcox, too, soon discovered the wealth of archival materials. At the Hayden Library of Arizona State University he discovered a copy of one installment of Cushing's Hemenway Itinerary, the original of which was at Harvard's Peabody Museum. One friend told him of the Southwest Museum's holdings, and another, Gina Laczko, knew of the Hemenway materials archived at the Huntington Free Library in the Bronx. The richness of the Hodge-Cushing collection in Los Angeles astonished him, and he soon employed it for a report on the Casa Grande ruins, which Mrs. Hemenway and Cushing had been instrumental in preserving.

After visiting other collections, by 1983 Wilcox could foresee the need for a publication series, and he began circulating a proposal. A few months later, Raymond H. Thompson, director of the Arizona State Museum, in discussion with Lea S. McChesney of the Peabody Museum, discovered that Edwin L. Wade, Hinsley, and she were thinking along similar lines.<sup>15</sup> A collaboration seemed natural, and in 1983 Wilcox, Hinsley, and McChesney met at the Peabody Museum. Over the next several years, they continued to assemble and transcribe materials, with Wilcox being aided in part by a grant from the Agnese N. Lindley Foundation. Progress was slow, however. In 1988 Hinsley moved from upstate New York to Northern Arizona University in Flagstaff, while Wilcox became head of Anthropology at the Museum of Northern Arizona, also in Flagstaff. Soon thereafter, McChesney decided to pursue further graduate work in anthropology at New York University, examining the production and marketing of Hopi ceramics.

Our initial goal was to publish only Cushing's unfinished Itinerary, written in the early 1890s — his largest and most unusual unpublished work. In addition to its literary qualities, Cushing's narrative contains valuable and unique archaeological data of relevance to contemporary Hohokam studies.<sup>16</sup> But chance changed these plans.

In 1991 Mary B. Davis, librarian at the Huntington Free Library, was inventorying the library's vault. Upon pulling down several books from a high, dusty shelf, she opened them to find, to her amazement, Cushing's distinctive handwriting. Closer inspection revealed that she had found nine letter books totaling more than four thousand pages—virtually the entire official correspondence of the Hemenway Expedition, stored away by Hodge and forgotten for sixty years. Included were all of Cushing's letters to Mrs. Hemenway; correspondence with Sylvester Baxter, the secretary-treasurer of the expedition board; communications with merchants in Phoenix, Tempe, and Albuquerque; and a wide assortment of other records, including Cushing's instructions to Hodge during the director's long periods of recuperation in California.

Wilcox inventoried the letter books as well as Hemenway collections at other institutions and began the enormous task of transcribing selected materials into a computer database. Before the letter books came to light, the Hemenway Expedition existed for us only through fascinating but widely scattered fragments. Now, with the correspondence as a core, the pieces formed a more coherent if still incomplete picture. The Hemenway Expedition puzzle began to make sense, but a larger series of volumes seemed necessary in order to tell the story in all its complexity. The present series is the result: a cultural history of the Hemenway Expedition and early anthropology in the American Southwest, told in the voices of the participants and interpreted by us.

The Hemenway Expedition occupies several critical points in the history of North American anthropology and archaeology. Cushing hoped it would stand as a "rock of ages" for the study of New World prehistory. Despite the largely unpublished nature of its work, the expedition is widely recognized as the foundation of Hohokam studies and a critical base for research into Zuñi prehistory as well. Additionally, Cushing brilliantly anticipated modern strategies of multidisciplinary teamwork, with Bandelier as historian; Washington Matthews, Herman ten Kate, and Jacob L. Wortman as physical anthropologists; Magill as artist; Baxter as publicist; Hodge as secretary/amanuensis; and Cushing himself as linguist, ethnographer, and archaeologist. Most important, perhaps, Cushing's struggle to find a language—a scientific poetics—suitable to his experiential and observational methods reflected a wider struggle between intuitive understanding and disciplined knowledge that continued throughout the twentieth century.<sup>17</sup>

Critically positioned historically, the Hemenway Expedition promises to enlighten current debates over the development of touristic rhetoric and sensibilities in the Southwest, a region that by the 1930s—when Aldous Huxley identified it as the “rest-cure reservation” of his “brave new world”—was already among the most heavily encoded spaces in the global economy and imagination. Frank Cushing’s expedition entered the Salt River Valley of central Arizona Territory only a few years after the Atlantic and Pacific Railroad (a subsidiary of the Atcheson, Topeka and Santa Fe) completed its main line across northern New Mexico and Arizona, en route to Los Angeles. During 1886, too, the last serious Native American armed resistance in the region ended, and local boosters and land speculators were already hastening to alter the territory’s image from one of miners, deserts, and wild Indians to a vision of farmers, green orchards, and peaceful pueblos. These were the crucial early years of the dreaming and inventing of the Southwest and of its incorporation into the national imagination.

Through this process, a distinctive regional entity eventually emerged, based on its landscapes, natural resources, and human inhabitants and appealing strongly to the wishes and projected desires of outsiders. Because the Southwest is an astoundingly rich archaeological field, but also because the acts of digging, removing, and displaying buried artifacts provide ready signs and objects of belonging and proprietary relationship to the land, archaeological exploration and collection came to be central in this cultural exercise of incorporating the Southwest.

Each of these considerations has its place in our project of reconstruction and interpretation. But we return always to the documents, the multilayered and multivocal testimony of a complex endeavor, an enterprise that was at once a scientific exploration, a poetic experience, a financial investment, and a set of convoluted human relationships. The stories and texts come to us on many levels: from Hodge’s personal shorthand diary notations of his quiet “portrait” meetings with Margaret Magill under the mesquite trees to Cushing’s forty-page disquisition to Mrs. Hemenway on the proposed museum; from quartermaster Charles Garlick’s invoices for hay and beans to Cushing’s stunning, visionary report to the Congress of Americanists in Berlin; from intimate accounts of nausea and delirium to soaring speeches about prehistoric hemispheric connections; and, finally, from the dreams of 1886 to the misery of sickness and a sense of failure less than three years later. Mistakes, misjudgments, and misunderstandings all played their roles

in Mrs. Hemenway's expedition, to be sure, but so did love, jealousy, and pride. In the end, we argue, a deep conflict of values and aesthetics doomed the expedition in its own time. It is this conflict that must be fully explored and understood if the rich legacy of Mary Hemenway and Frank Cushing is finally to be realized today.

David R. Wilcox  
Curtis M. Hinsley



## Chronology of the Hemenway Expedition

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*Asterisks indicate events recounted in this volume.*

- 22 July 1857 Frank Hamilton Cushing is born in Erie County, Pa.  
1875 Cushing joins the National Museum of the Smithsonian Institution under the tutelage of Assistant Secretary Spencer F. Baird.
- July 1879 John Wesley Powell establishes the Bureau of Ethnology as a branch of the Smithsonian.
- 5 August 1879 Upon Secretary Baird's recommendation and as a representative of the National Museum, Cushing leaves Washington, D.C., with Col. James Stevenson, Matilda Coxe Stevenson, and Jack Hillers for the Southwest.
- 19 September 1879 Cushing reaches Zuñi for the first time.
- 28 May 1881 Sylvester Baxter and Willard Metcalf meet Cushing at Fort Wingate, New Mexico Territory.
- 16 June 1881 "Solved at Last" is published in the *Boston Herald*.
- June 1882 "Father of the Pueblos" is published in *Harper's Magazine*.

- July 1882 Cushing is transferred to the Bureau of Ethnology payroll.
- August 1882 "An Aboriginal Pilgrimage" is published in *Century Magazine*.
- 11 December 1882 "Logan's Land" is published in the *Boston Herald*.
- 17 March 1883 "Zuñi Revisited" is published in the *American Architect and Building News*.
- 24 March 1884 Powell recalls Cushing to Washington due to political pressure from Sen. John Logan, Republican candidate for vice president.
- 26 April 1884 Cushing leaves Zuñi, arriving in Washington on 29 April.
- 13 January 1885 Cushing addresses the American Geographical Society on the Seven Cities of Cibola.
- April 1885 "Along the Rio Grande" is published in *Harper's Magazine*.
- June 1885 Cushing goes home to Barre Center, N.Y., to recuperate.
- September–November 1885 Cushing lives at Eben Horsford's summer place on Shelter Island.
- ca. 9 November 1885 Cushing arrives at the home of Eben Horsford in Boston.
- spring 1886\* At Old Farm, Milford, Mass., Mary Hemenway suggests to Cushing that Zuñi priests come east during the summer to work with him.
- June 1886 Herman ten Kate visits Cushing and Mrs. Hemenway at Old Farm.
- 13 August 1886\* Palowahtiwa, Waihusiwa, and Heluta arrive at Manchester-by-the-Sea, Mass., having left Zuñi twenty days before (25 July).
- September 1886\* The idea of the Hemenway Expedition is proposed by Mrs. Hemenway.
- September 1886 Sylvester Baxter is appointed secretary-treasurer of the expedition.
- 12 September 1886 Adolf Bandelier is invited to join the expedition as historian; he accepts on 18 September.

- 12 November 1886      Cushing writes a “research design” for the expedition.
- 22 November 1886\*      Cushing meets with Maj. John Wesley Powell, who suggests Cushing begin with a reconnaissance.
- 4 December 1886      Frederick Webb Hodge, newly engaged as field secretary, begins his Hemenway diary.
- 13 December 1886      Cushing, his wife Emily, his sister-in-law Margaret Magill, Hodge, and the three Zuñis leave Albion, N.Y., by train for the Southwest.
- 17 December 1886      Bandelier joins the Cushing party on the train at Lamy, New Mexico Territory, and accompanies it to Albuquerque.
- 21 December 1886\*      Cushing and Hodge visit Zuñi in time for the winter solstice ceremonies.
- 14 January 1887\*      On her way to California, Mrs. Hemenway arrives in Albuquerque in her private railroad car and is met by Cushing, who accompanies her to Flagstaff.
- January 1887\*      C. A. Garlick joins the expedition as foreman.
- 20 January 1887\*      The Cushing party, joined by the Zuñi Indians Weta and Siwatitsailu, begins its reconnaissance, traveling by train to Prescott Junction, then south by wagon.
- 6 February 1887      Magill begins her Hemenway diary.
- 12 February 1887\*      The Cushing party establishes Camp Augustus opposite Tempe, Arizona Territory.
- 21 February 1887\*      Excavations commence in Ciudad de los Pueblitos (Pueblo Grande), and the Cushing party first visits Ciudad de los Hornos the next day.
- 27 February 1887\*      Cushing first visits Ciudad de los Muertos.
- 22 March 1887\*      A side camp is established at Los Muertos.
- 29 March 1887\*      At Cushing’s request, Hodge begins a “synopsis of events” of the expedition.
- 1 April 1887      Hotel del Monte, near Monterey, Calif., burns while Mrs. Hemenway is staying there.
- 3 May 1887      The Great Sonora earthquake is felt at Camp Hemenway.



- Hodge and Garlick begin a reconnaissance trip west to the Gila River.
- 13 May 1887      The Cushing party transfers to Camp Hemenway near Los Muertos.
- 5 June 1887      Mrs. Hemenway arrives back in Boston from California.
- 17 June 1887      Hodge and Magill discover their love for one another.
- 3 July 1887      Maricopa and Phoenix Railroad construction is completed, connecting Tempe to the Southern Pacific Railroad.
- 7–8 August 1887      Cushing works on restoring the turquoise-encrusted shell frog (or toad) fetish.
- 15 August 1887      Baxter and John G. Bourke meet with Mrs. Hemenway about Cushing's illness.
- 1 September 1887      Washington Matthews arrives at Camp Hemenway.
- 9 September 1887      The Cushings and Magill depart for California, returning to Camp Hemenway on 14 September.
- 23 September 1887      Mrs. Hemenway pays \$16,000 for land on Bachelor's Point in Salem, Mass., as a site for the Pueblo Museum and school.
- 26 September 1887      The Cushings and Magill again depart for California, leaving Hodge and Garlick in charge of the field operations.
- late October 1887      The Cushing party travels by steamer to San Francisco.
- 18 November 1887      Herman ten Kate arrives in Tempe after passing through Boston on 1 November.
- 25 November 1887      Jacob L. Wortman arrives in Camp Hemenway.
- 8 December 1887      Henry B. McDowell, associate editor of the *San Francisco Examiner*, arrives at Camp Hemenway to write a series of articles.
- 16 December 1887      The Cushing party returns by steamer to San Diego.
- 22 December 1887      The Cushing party arrives back at Camp Hemenway from San Diego.

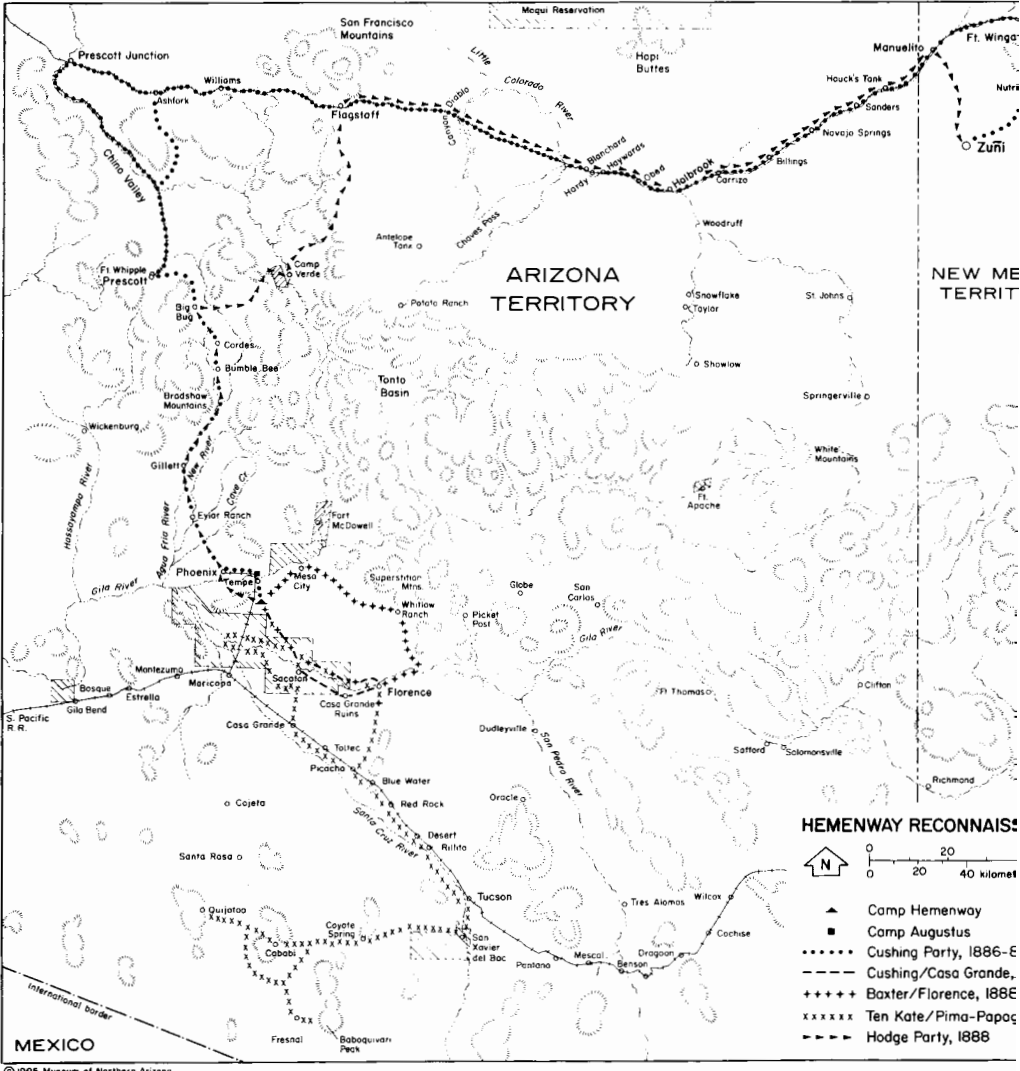
- 27 December 1887    Wortman and McDowell go to El Paso to check out cave sites, returning on 5 January.
- 29 December 1887    Baxter leaves for the Southwest, arriving in Camp Hemenway on 11 January 1888.
- 13 January 1888    Ten Kate takes over operations at Camp Baxter (near Las Acequias).
- 2 February 1888    Bandelier arrives at Camp Hemenway for a council on 3 February.
- ca. 25 February 1888    Edward P. Gaston arrives at Camp Hemenway.
- 6 March 1888    Ten Kate leaves on his reconnaissance to the Pimas and Papagos (Tohono O'odham).
- 16 March 1888    Photographer Percy Yates begins work.
- 20 March 1888    Don Eusebio Molera, from San Francisco, arrives at Camp Hemenway.
- 30 March 1888    Edward S. Morse arrives in Tempe.
- 4 April 1888    Baxter finishes "The Old New World" at Camp Hemenway.
- 4–8 April 1888    Cushing, Baxter, Morse, Wortman, Hodge, and others take a field trip to Cave Creek and Las Canopas.
- 11 April 1888    Morse leaves Camp Hemenway for Salem.
- 13 April 1888    Baxter, Wortman, and party start on Florence reconnaissance.
- 15 April 1888    "The Old New World" is published in the *Boston Herald*.
- 20 April 1888    Baxter leaves Camp Hemenway for California and arrives in Boston on 22 May.
- 28 April 1888    Daniel Walter Lord arrives at Camp Hemenway.
- 5 May 1888    Ten Kate returns to Camp Hemenway from his reconnaissance to the Papagos.
- 10 May 1888    Wortman departs Camp Hemenway, arriving in Washington on 7 August.
- 12 May 1888    The Hemenway collections from the Salt River Valley leave Tempe by train for Salem.

- 14 May 1888      The Cushings and Magill leave for California, arriving at the Hotel del Coronado on 16 May.
- 17 May 1888      Ten Kate begins a field trip to Maricopas on the Verde River.
- 26 May 1888      Baxter sends a petition to the commissioner of the General Land Office to set aside the Casa Grande Ruins.
- 29 May 1888      Mrs. Hemenway engages architect L. Edwin Tobey to build a museum and school building at the Bachelor's Point land in Salem.
- 6 June 1888      The field party leaves Camp Hemenway for Zuñi, passing through Flagstaff on 26 June and arriving at Zuñi on 13 July.
- 12 June 1888      The Cushings and Magill arrive in San Francisco.
- 2 August 1888      The Cushings, Magill, and photographer E. H. Husher reach Zuñi.
- mid-August 1888      Excavations at Halonawan begin.
- 24 August 1888      Catalog entries for Halonawan begin.
- 27 August 1888      Ten Kate leaves Camp Cibola for Salem.
- September 1888      Baxter and Morse represent the expedition at the International Congress of Americanists in Berlin, presenting papers by Cushing, Bandelier, and Wortman and ten Kate.
- 13 October 1888      Cushing, Bandelier, and Husher go to El Morro, near Zuñi.
- 20 October 1888      Final entries are made in the Halowan catalog. The Cushings leave for the East, leaving Garlick and Hodge in charge and arriving in Boston on 27 October.
- 24 October 1888      A camp is established to excavate Hé-sho-ta-Ú-thla.
- early December 1888      An overdraft of the Hemenway account is reported by the Bank of Albuquerque.
- 9 December 1888      Husher and Hodge depart for central Mexico; they see Teotihuacan in late December.
- 14 December 1888      Last entries are made in the Hé-sho-ta-Ú-thla catalog.

- 20 December 1888 Edward Gaston, who had been keeping the catalog, resigns and returns home to Lacon, Ill.
- late December 1888 Baxter is dismissed as secretary-treasurer of the Hemenway Expedition board and is replaced by Katherine Stone.
- 5 January 1889 The first installment of "Archaeological Camping in Arizona" is published in the *American Architect and Building News* (others are published 12, 19, 26 January; 31 August; and 14 September 1889).
- ca. 18 January 1889 Cushing goes to Washington to lobby for preservation of the Casa Grande Ruin.
- late January 1889 The camp at Hé-sho-ta-Ú-thla is shut down.
- mid-March 1889 E. H. Husher leaves Camp Cibola for San Francisco.
- 31 March 1889 Cushing replies to Hodge's letter of resignation.
- ca. 10 May 1889 Jesse Walter Fewkes is appointed to the Hemenway Expedition board, replacing the recently deceased Martha LeBaron Goddard.
- mid-May 1889 Daniel Lord leaves Camp Cibola for the East.
- 15 June 1889 Augustus Hemenway dismisses Cushing as director of the expedition; Fewkes is appointed to replace him.
- mid-June 1889 The Cushings leave Garfield Hospital in Washington for Albion and later Barre Center, N.Y.
- summer 1889 Fewkes visits the Zuñi region.
- July 1889 Hodge joins the Bureau of Ethnology as assistant ethnologist.
- October 1889 Garlick sends Cushing a box of manuscript material and informs him that the Hemenways are trying to sell his house at Zuñi.
- 20 February 1890 Cushing reports to Matthews that he has finally expelled the last tapeworm and has pickled it in alcohol.
- ca. 15 April 1890 Mary E. Dewey is appointed to the Hemenway Expedition board.
- summer 1890 Fewkes again visits the Zuñi region.

- 15 December 1890      Cushing delivers a lecture to the Buffalo Academy of Sciences.
- January 1891\*      Cushing works on the Hemenway Expedition journal, the day-by-day Itinerary.
- May 1891\*      Fewkes publishes the first volume of the *Journal of American Ethnology and Archaeology* on the Hemenway Expedition.
- 12 June 1891\*      Cushing sets conditions for William Harris to continue writing up his expedition work for Mrs. Hemenway.
- 31 August 1891      Hodge and Magill are married.
- December 1891      Fewkes abandons the Zuñi field for Hopi.
- January 1892\*      Cushing works intensively on the Itinerary, with Hodge as his typist.
- 1 February 1892\*      Cushing accepts a position at the Bureau of Ethnology as an assistant ethnologist.
- 6 March 1892      The Cushings rent a house in Georgetown at 1506 30th Street.
- 18 August 1892\*      Cushing turns over the first installment of the Itinerary to Harris and then goes to Albion, N.Y. He also attends the American Association for the Advancement of Science meetings in Rochester, N.Y.
- ca. 5 September 1892\*      Harris, Mrs. Hemenway, and Stone read an installment of the Itinerary and think it is wonderful.
- 19 October 1892\*      Baxter warns Cushing not to trust Fewkes.
- 17 February 1893\*      Cushing begins dictating the latest installment of the Itinerary to Hodge.
- 25 February 1893      Cushing meets Stewart Culin for the first time.
- 18 March 1893\*      Hodge claims proprietary rights to his diary and his synopsis of events.
- 5 April 1893      Hodge gives Cushing a copy of his irrigation paper, later published in the *American Anthropologist*.
- 13 May 1893      Cushing is informed by Harris that Augustus Hemenway, as Mrs. Hemenway's trustee, refuses to pay him for his work on the Itinerary.

- 26 June 1893            The Cushings leave Washington for the Chicago World's Fair. Emily returns on 26 August, Cushing on 11 September, to a rented home at 1610 13th Street.
- 6 Mar 1894             Mary Hemenway dies from diabetes in Boston.
- 6 April 1897            Frederick Putnam, in cooperation with Major Powell, proposes a method of completing the report on the Hemenway Expedition. Augustus Hemenway rejects it.
- 10 April 1900           Cushing dies from complications a week after swallowing a fishbone.



Map of the Travel Routes of the Hemenway Expedition in the Southwest, 1886-1889

## Preface to Volume 2

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In the first volume of this series we presented a selection of the writings of Sylvester Baxter, a *Boston Herald* editor who came out in 1881 to New Mexico Territory, where he befriended the young ethnologist Frank Hamilton Cushing and called national attention to his experiences at Zuñi Pueblo. A few years later, Baxter became Cushing's man on the board of the Hemenway Expedition as its secretary-treasurer. When the need arose to put a public face on the expedition, Baxter wrote the publicity pieces, introducing the Hemenway Expedition to the world. An urbane man, he constructed an image of this privately funded scientific enterprise in the American territories of the Southwest that felicitously ignored the many human tensions that were growing within it, notably those between his hero, Cushing, and the patroness, Mary Hemenway, and her circle. By the end of 1888, those tensions resulted in Baxter's dismissal from the board and, a few months later, Cushing's dismissal as director.

Deeply dissatisfied, the Hemenway Expedition board members demanded from Cushing a return on their investment. As planned from the beginning of the expedition in 1886, they wanted a written report, a published testimonial to the importance of the work they had set out to do together. With fits and starts, between 1890 and 1893 Cushing tried to comply, writing a popular journal or



Itinerary, but the old tensions had deepened, and after a few installments the effort ended. In the introductory essay to this volume, we discuss the inception of the Hemenway Expedition and its deeper motives and aspirations and then trace the story of the production of part of a “lost itinerary,” of which only pieces now survive, hidden from sight in two different repositories for a century.

Cushing’s Itinerary of the Hemenway Expedition is a unique document in American letters. As a vivid account of the first archaeological expedition to do scientific excavations in southwestern sites, it is an intellectual adventure story that sheds important light on the human past at what are now called Hohokam sites in the Salt River Valley, Arizona. More than that, it gives us a perspective on the construction of a whole new approach to archaeology, an ethnological archaeology that drew upon a then-unparalleled and as-yet-unrepeated knowledge of a southwestern Pueblo tribe, the Zuñis, and the application of that knowledge to the interpretation of archaeological sites.

For those of us who experience southwestern landscapes today, Cushing’s Itinerary paints word pictures for our imaginations that help us to understand what once was. Take but one example. When Cushing and his party drove on from the Pueblo Grande platform mound to the place opposite Tempe Butte where they established Camp Augustus, Cushing looked about and, in his mind’s eye, recorded scenes that he later brilliantly described in the Itinerary. As best we can tell, Camp Augustus lay near the place where today Mill Avenue intersects with Curry Road to the east and Washington Street to the west. The Tempe music hall occupies one corner, and a park — where Camp Augustus may have been — occupies another. Today, we can see the Mill Avenue bridge and, above it, running along the river, the Red Mountain freeway, the din of cars echoing loudly in our ears. The Salt River channel is still there, but now it is filled with a lake, a developer’s dream that may soon also bring condos to the top of Tempe Butte, where Cushing and his sister-in-law Margaret Magill found petroglyphs and shrines. Immediately east of the Butte is Sun Devil Stadium, and Arizona State University lies south of it. In the midst of a modern business district in 1990s pastels, Charles Trumbull Hayden’s adobe house still stands, though now adaptively re-used as Monti’s Steakhouse. To the north Papago Park, where now there is a zoo and botanical garden, preserves the weird rock formations so well described by Cushing; it was near there that he and Margaret had to burn their way through a cholla forest to get back to Pueblo Grande.

The main mound at Pueblo Grande still exists, preserved today in a city park



Figure A. William Torrey Harris, an adviser to Mary Hemenway who exhorted Cushing to write an account of the expedition. (Courtesy of the Missouri Historical Society, St. Louis)

where the eager visitor can learn a great deal about the earlier Hohokam experience of living in the Valley of the Sun. Like Cushing, one can stand on top of the mound and look out across the valley, but now all but one of the other mounds are gone, torn down to make way for modern civilization. Cushing's *Itinerary* helps us to meet the interpretive challenge of picturing the cultural landscapes of earlier times, those of only a century ago, and the even more ancient cultural systems of the Hohokam era.

On another level, Cushing's *Itinerary* puts on display a man striving to reconnect to the support system so necessary to the success of any scientific enterprise. After he was dismissed as director, Cushing never again was allowed to see Mrs. Hemenway, the woman whose sensibility had resonated with his own on the Atlantic shore in autumn 1886, thereby creating the opportunity for anthropological innovation. Through his words he sought to reach her, to reignite her confidence in him, and to restore the trust that had made possible their collabo-

ration. Tragically, by this time she had an advanced case of diabetes and would pass away less than a year after work on the Itinerary ceased. Her son Augustus and others around her sought to protect her, and the time must have come when they believed any more disturbance to her was too much. Perhaps that is why they finally let Cushing know, through William Torrey Harris, the chairman of the board of the Hemenway Expedition, that no more funds would be forthcoming for the Itinerary or other work.<sup>1</sup>

Subsequent volumes of this series will more closely examine the scientific results and, through correspondence, diaries, and field notes, the personal relationships among the “players” in the Hemenway Expedition drama, exploring the vulnerability of science in situations without institutional protections and subjected to strong conflicts of personalities and values. The unfinished Itinerary of Frank Cushing opens a fascinating window into that world.

David R. Wilcox

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Koza, director of the Stephen Philips Library, and Will Lamoy assisted our investigation of their Hemenway and Morse collections; and at the Manchester Historical Society, on a snowy day in January 1998, archivist Esther Proctor not only shared rare resources but took an hour to drive out to Pickworth Point and Casa Ramona. Evelyn Lyman, director of the Swan Library in Cushing's hometown of Albion, New York, has aided this project unstintingly. Also, at the University Archives of Hampton University, our thanks to Cynthia Poston and Donzella Maupin.

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David R. Wilcox  
Curtis M. Hinsley

## Editorial Note

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Square brackets indicate the editors' additions. The use of dashes and hyphens has been standardized from the nineteenth-century originals. Punctuation has otherwise been unaltered except for clarity, and insertions have been enclosed in square brackets. The spelling of *Zuñi* follows Cushing's preferred usage.



## PART I

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# Introduction

I have had, ever since I left Washington, not only the incidents of a long and varied journey to distract me, but also the equipment, organization and administration of a not inconsiderable Archaeological Expedition to occupy me.

After a wonderfully interesting journey over deserts and mountains from northernly Arizona to the banks of the Salado,—from the region of snow-spread mesas, to the land of grass-green valleys, garden vegetables, pepper-trees, palmetas, giant cacti, Californian Americans, southern Mexicans, Chinese, Pima and Maricopas, warm breezes, buzzing flies and great ruined cities,—here we are in our first central camp on the low gravel hills ten miles east of Phoenix.

My little wife and her sister are here with me; both reading in our cozy little Sibley tent—a bright fire burning, and bright lights glowing, to cheer and warm our evening. Across the square of my camp, other tents gleam in the starlight amongst the wagons, while the talk of my secretary, assistant and men, greet me indistinctly yet pleasantly because evincing enjoyment—which I love always to see.

Here I begin a work I have waited so long for! God grant me health and wise guidance; rendering my efforts available for good. Noble is the friendship which



supports it, nobler the work must be if possible that it may be worthy enough of its inspiration.

Frank Cushing to Eben Horsford  
Camp Augustus  
Rio Salado, Arizona Territory  
February 20, 1887

# The Lost Itinerary of Frank Hamilton Cushing

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▼  
*Curtis M. Hinsley*

Between 1891 and 1893 Frank Cushing composed an account of the origins and early months of the Hemenway Southwestern Archaeological Expedition that has survived for over a century, but only as unpublished fragments that were dispersed in several archives across the United States. It is comprised of four pieces of varying length, combined and presented here for the first time. The first is a brief document entitled simply “Preliminary Report, or Itinerary, of the Director of the Hemenway Southwestern Archaeological Expedition,” which Cushing intended as an introduction to his full account of the Hemenway Expedition—or, as he put it, “the simple narrative of my doings and movements, discoveries and observations, motives and efforts” as the head of his two-year expedition. Cushing’s account begins during the “ever to be remembered Summer” of 1886 at Mary Tileston Hemenway’s estate at Manchester-by-the-Sea on the Massachusetts North Shore, “with its picturesque incidents and contrasts of the olden and the new, with its wealth of stories told by our dusky guests.”

The second installment recounts some of that “wealth of stories” told by Cushing’s Zuñi friends at Manchester. It is based on a set of “notes” of “conversations” that Cushing apparently kept during the visit of Palowahtiwa, Waihu-siwa, and Heluta to the Hemenway estate between August and October 1886.<sup>1</sup>

While other accounts of this remarkable seed time of the expedition exist,<sup>2</sup> Cushing's description of the Zuñis' reactions to life at Mrs. Hemenway's home, Casa Ramona, intermixed with their stories of travel and folklore, has a directness and immediacy that suggest the degree to which the expedition was grounded in Mrs. Hemenway's fascination with Zuñi folklore and language as described to her by Cushing. Alone among the Itinerary documents, this Manchester account may have been written on the spot—certainly the notes were. Still, Cushing probably intended it eventually to form an essential part of the longer narrative of the expedition.

The "Field Notes and Journal of Explorations and Discoveries in Arizona and New Mexico during the Years 1887-'88 by Frank Hamilton Cushing, Director" comprises the third and by far the major portion of the Itinerary. Written, typed, and paginated in several pieces, this account was not composed during the expedition but is a reconstruction of events and observations undertaken after its demise and under exceedingly difficult conditions, in collaboration with Frederick Webb Hodge and Margaret Magill, from field notes, diaries, jottings, and memories.<sup>3</sup> It narrates the story of Cushing's expedition from the time of departure from the Hemenway North Shore estate in mid-December 1886 to 2 March 1887, when they were camped outside Tempe in Arizona Territory.<sup>4</sup> The final installment of the Itinerary directly continues this narrative from 3 March to 14 April 1887, focusing on Cushing's day-to-day initial fieldwork at the Hohokam site that he called Los Muertos.<sup>5</sup>

Cushing's Itinerary is thus both fragmentary and incomplete: disjointed and piecemeal, it covers only eight months of more than two years, and most of it was written retrospectively. At the same time, it presents us with the voice and personality of Cushing in a uniquely sustained format. Literally in his "voice" (he dictated much of it to his amanuensis and secretary, Fred Hodge) and in the remembered voices of Zuñi friends, companions, cooks, and wayfarers, the Itinerary is, taken altogether, a unique text of travel in early southwestern archaeology, as much a moving and changing cast of characters as a sober set of observations. Yet within the parade of characters and events lie very serious purposes.

In the first place, Cushing intended for the Itinerary to serve as vindication for the worst personal and professional failure of his life, as proof that he had in fact undertaken serious archaeological fieldwork and kept proper financial and scientific accounts—as he stated in the preface, he intended to tell of his "doings and movements, discoveries and observations, motives and efforts." To Cushing

it was a matter of nothing less than retrieving his badly tarred honor as a man and a scientist. But of equal importance, and beyond any personal justification, Cushing wanted in his Itinerary to explore the relationships between the present and the past in America, between landscape surfaces and the subsurface depths of an unknown region, and between ethnography and prehistory in the American Southwest.

The Itinerary was aimed first and foremost at Mary Hemenway, from whose presence he had been banned after 1889. As his patron, she also became finally the primary audience of his unfinished account. Therefore, before addressing the vital issues at stake in Cushing's narrative, we must first fully grasp her understanding of what she was supporting and the mutual purposes—as well as misunderstandings—that lay at the heart of her enterprise with Cushing.

### Mary Hemenway's Vision

In early July 1886 Cushing announced proudly to his boss at the Bureau of Ethnology in Washington, John Wesley Powell, that his “generous friend” Mary Hemenway had offered to support his research into Zuñi folklore, ethnography, and archaeology “in many ways.” “Having become greatly interested in Ethnographic research (as, in her estimation, bearing on the solution of the Indian question),” he enthusiastically explained to Powell, “she has decided to turn much of the fund she has heretofore devoted to Missionary work, into this, which she now thinks a more rational way of aiding the Indian as well as humanity in general.” Cushing hastened to assure Powell that Mrs. Hemenway's decision was not the result “of importunities or even of suggestions” by himself.<sup>6</sup>

Whatever importunities or suggestions Cushing may actually have made, Hemenway's offer came at a propitious moment for him. Ever since his recall from Zuñi in 1884, the ethnographer and his devoted wife, Emily, had been at loose ends in terms of finances and health. Employed by the Bureau of Ethnology but dependent on friends for support, he struggled unsuccessfully, under the benign tolerance of Powell, to recover from the stomach ailments that had arisen during his years at Zuñi Pueblo and to complete the works on Zuñi language and folklore that he had repeatedly promised and then deferred.<sup>7</sup> He felt, Cushing told Powell, like “a fly in a web”: “The more I have struggled to effect [my work] the more hopelessly restricted have become my powers of accomplishment—until I have at last rested absolutely—and let the spider *gnaw!*”<sup>8</sup>

Much of 1885—a terrible, “gnawing” year for the Cushings—had been spent at the summer home of Harvard professor of chemistry Eben Horsford on Shelter Island on Long Island Sound.<sup>9</sup> Horsford, who had amassed considerable wealth from the development of baking powder, took great care for the comfort of Frank and Emily, and with every sign of improved health Cushing renewed his long-standing request to Powell for bringing his Zuñi friends, Palowahtiwa and Waihusiwa, to the East Coast for language and folklore studies with him.<sup>10</sup> By November of that year, though, Horsford and Cushing had to admit that his health was not improving sufficiently, so the Cushings moved to Horsford’s home in Cambridge for the winter so that he could be under the direct care of Horsford’s private physician.<sup>11</sup> A few months later, Mary Hemenway invited the Cushings to continue recuperation (and, Cushing hoped, his Zuñi folklore work) at Old Farm, her family estate in Milton, Massachusetts.<sup>12</sup>

Why did Mary Hemenway choose to support Cushing’s proposal for a major archaeological expedition to the Southwest in the summer of 1886? If we accept the challenge of the southwestern publicist and booster Charles F. Lummis that the Hemenway Expedition was “an affair which may invite scientific criticism, but certainly merits comprehension,”<sup>13</sup> Mrs. Hemenway begins to emerge as a central, rather enigmatic figure in the story. The penumbra of silence that surrounded this prominent woman only increases the allure of an historical personage who rarely wrote letters and thus left a spare textual record, choosing instead to express herself indirectly through the works and words of others. As her minister, Charles G. Ames, said at her funeral, she was a woman who “constructed for herself a dialect of deeds.”<sup>14</sup> Hemenway’s close friend, Boston author Mary Claffin, fondly recalled the quiet that surrounded and accompanied her: “She sometimes drove from her country place in Milton, and sat on the piazza under the shade of the elms; and that she may have conceived there some of her wonderful schemes for the good of the world, and especially of our own country, renders all the sweeter the rustle of the leaves and the murmuring of the brook, to which she listened. Her kindly bearing, her noble response to everything proposed for the benefit of humanity, her hopeful attitude toward the world, made her presence and spirit never to be forgotten.”<sup>15</sup>

Such indirection in a life practically dictates indirection in our reconstructive understanding of it. Let us consider, then, another private description by Cushing of his patron:

My dear Adolfo

... Now I wish to tell you something of this noble lady;—this good friend of mine. It is an unspeakable honor, privilege and pleasure to me to thus say that she is my friend; but this is not enough. In all works of enlightened, far-reaching Philanthropy she is a foremost but silent . . . promoter [and] helper. A woman of lofty ideals and though not as widely known as the effects of her work, a truly great and noble woman. This will be better known as time goes on.<sup>16</sup>

In these terms Cushing introduced Hemenway to Adolph Bandelier in the fall of 1886. With the letter he enclosed Bandelier's first \$100, an advance paycheck from Mrs. Hemenway for his anticipated work as historian on the Hemenway Expedition. But Cushing's draft letter also contained some crossed-out description of the Boston widow: "Apparently a woman among women, that is to say, an enthusiastic, joyous, wholly impulsive and even somewhat superficial person, she is really a hard thinker, a most lofty true and noble soul, and with all her paradoxes of appearances what she cannot help appearing constantly, a queen among women and one of the Greatest women of America, [even] The World."

At her death in 1894, only five years after her southwestern expedition had ended in disarray and recrimination, those who gathered for Hemenway's funeral at the Church of the Disciples in Boston and those who wrote laudatory obituaries of Boston's wealthiest woman celebrated her generosity and civic spirit in terms similar to Cushing's. They mentioned her support for African American education after the Civil War; her promotion of sewing, cooking, and gymnastics for girls; her substantial role in saving Old South Meeting House in the year of the nation's centennial; and her enthusiasm for American history and its recovery in the works of John Fiske and others. They even made oblique references to the disappointing results of her experiment with Cushing and southwestern archaeology.<sup>17</sup> But none of her contemporaries understood the intertwined nature of Mary Hemenway's various philanthropies or the complex person behind them.

Mary Hemenway was born in New York in 1820. Her generational cohort was already mature and formed in its values and habits by the time of the Civil War; those who lived through that war and then grew old in its aftermath either abandoned their faith in antebellum values or (more frequently) transformed them into new shapes and purposes.<sup>18</sup> What were Mary Hemenway's values? Re-

cent research has begun to sketch out her early life and provide some suggestive clues.<sup>19</sup> She grew up as Mary Porter Tileston in a large, prosperous New York City commercial family. Her father, Thomas Tileston, regularly attended the church of Rev. Orville Dewey, who has been described by historian Ann Douglas as “an artistic, gentle, and supremely literate Unitarian clergyman” of the pre-Civil War metropolitan Northeast.<sup>20</sup> Reverend Dewey offered regular sermons to the merchant princes of the New York metropolis on such themes as getting and using property, the moral limits of accumulation, wise methods of charity and reform, and “the danger of doing more harm than good by careless distribution” of wealth.<sup>21</sup> His was a conservative gospel of wealth; but he also preached cautiously against a preoccupation with the accumulation of wealth for its own sake: “There is need among us of objects that kindle up admiration and enthusiasm, that awaken the sense of delight and wonder, that break up the habits of petty calculation and sordid interest, and breathe a liberal and generous soul into the people.”<sup>22</sup>

The oldest of nine Tileston children, Mary was, according to one account, “a brilliant and dutiful girl . . . reared principally on her household duties, the Bible and Shakespeare.”<sup>23</sup> Throughout her life, first as a young mother of five and later as a widow, she maintained strong emotional and intellectual bonds with clergymen (first James Freeman Clarke, later Charles Gordon Ames), collecting their sermons and reading them over and over, apparently in preference to other forms of literature.<sup>24</sup> Her niece recalled of “Aunt Mary” that her taste was always for history, biography, and sermons: “She bought almost every volume by any preacher of note, and had it read aloud” while she crocheted or knitted.<sup>25</sup>

Both her maternal Porter family and her paternal Tileston family had deep roots in Salem and considerable seafaring wealth as well,<sup>26</sup> and it was on the North Shore of Massachusetts that she was ultimately to spend most of her life. After a two-year epistolary courtship (1838–1840), she married Augustus Hemenway, a Boston merchant and self-made man who, like her father, had amassed a fortune in South American and West Indian trade. She was nineteen, he was thirty-four. Over the next twenty years she bore five children but saw little of her husband: son of an alcoholic father, he had seen his mother and siblings abandoned and dispersed, and he was obsessively determined to provide for his own family, even if, ironically, his own absence was the price. Tragically, he collapsed from nervous exhaustion in 1860 and was institutionalized for thirteen years; Mary and Augustus enjoyed only three more years together (1873–1876) before



Figure B. Mary Hemenway as a young woman, ca. 1840. (Eustis, *Augustus Hemenway*, opp. p. 33; reproduced courtesy of the family of Mrs. Charlotte Cabot Bartol)

his death in 1876. In effect, as Lea McChesney has observed, Mary Hemenway was a widow at age forty.<sup>27</sup> But the Civil War years held even greater losses for her: in 1864 her father died, and the following year her beloved eldest child and daughter, Charlotte Augusta, suddenly died as well. She was only twenty-three.

The devastation of civil war was thus compounded in Hemenway's personal life by a sense of profound loss and isolation, as shown in her letters to her closest friend, Sophia Hawthorne, at the time.<sup>28</sup> While she had previously employed her wealth privately on occasions, now in the postwar years of national "reconstruction" she began to emerge as a publicly visible benefactor. Her numerous activities on behalf of female education—cooking classes, home economics, gymnastics—date from this period and should be seen as part of a larger educational agenda, as explained in 1900 by Kate Wells: "she saw in the slow, cumulative force of educa-



tion the surest method of combating the ills of a narrow spirit, a weak physique, and unhealthy living. . . . [She realized] that a woman's care of home is the foundation of a country's progress in prosperity and honor."<sup>29</sup>

There is much truth in this perspective, especially the recognition of Hemenway's connection between the woman's domestic sphere (and her own associated philanthropy) and the health of the nation. McChesney has developed this insight further, arguing that

in a changed and changing [post-Civil War] society, Mary Hemenway was concerned with socialization, via public institutions, to provide a moral education which instilled patriotism and democratic values. It was only by this means that a national unity could be maintained in the face of rampant immigration, industrialization, and the divisiveness resulting from the Civil War. Put more bluntly, [she] was deeply involved with the formation of a national identity and ideology, and she provided the necessary support of the institutional means to foster this agenda.<sup>30</sup>

Hemenway's personal agenda was essentially conservative reform aimed at national health and reunification, couched in the terms of Christian charity, individual self-help, and community harmony that were her intellectual inheritance and touchstones. Cushing correctly grasped that her support for his anthropology fit into this program of philanthropy as a form of "mission" and as such was clearly the successor, in the mideighties, to her post-Civil War enthusiasm for the efforts of Samuel Chapman Armstrong in educating freed African American slaves at Hampton Institute in northern Virginia. Indeed, her involvement with Armstrong, which was long, complex, and serious, is the most promising key to understanding her support for Cushing.<sup>31</sup>

The chaotic decade ushered in by Appomattox and Lincoln's assassination proved to be an era of unprecedented economic opportunity and corruption; for some observers it amounted to a national nightmare of vulgarity and disillusion. Viewed from the Washington vortex of this new world of scandal, the country appeared to Henry Adams to be "dragged on by an attractive power in advance, which even the leaders obeyed without understanding, as the planets obeyed gravity, or the trees obeyed heat and light." To such men the postwar American cultural landscape emerged as dingy and barren.<sup>32</sup>

Still, every age requires its heroes, and an age enamored of energy and power tended to enshrine men of stamina and force—survivors of a grisly war, leaders

who seemed determined, perhaps even visionary, actors with a practical nobility. But neither materialism nor practicality alone sufficed, for the “divine message” of the Civil War in the eyes of its survivors lay in the virtues it had taught: “courage, strength, endurance, duty, principled sacrifice,” and the supreme importance of the application of one’s energy and passion to high purpose.<sup>33</sup> The crusading Christian zeal of the victorious Union was not to be lost; the unspent moral energies expressed so movingly in “The Battle Hymn of the Republic,” which had been composed, so it was said, in a single feverish night by Mary Hemenway’s close friend, Julia Ward Howe, were to be transformed and redirected toward the salvation of newly freed souls. The transmutation of prewar abolitionism into postwar nation reconstruction required only the proper agents to “tramp[le] out the vintage [of] the grapes of wrath.”

Viewed in this light, Armstrong’s Hampton Institute (like Booker T. Washington’s Tuskegee Institute, which Hemenway also subsequently supported financially) provided a postwar outlet for the impulses of charitable reform and for a time kept alive the conservative ideal, from antebellum Republican Party ideology, of a mobile yet cohesive American society that would embrace all citizens—at their proper levels and places.<sup>34</sup> Armstrong’s vision for freed African American slaves (and, from 1878, Native Americans as well) required an educational philosophy and praxis that involved both manual and moral training—a model that Armstrong inherited from his missionary father in Hawaii.<sup>35</sup> In the case of the newly freed slaves, Armstrong aimed to “redeem their past” and fit them for a future in American society. For this “they needed not only the teaching of books, but the far broader teaching of a free and yet disciplined life” with what today might be called marketable skills.<sup>36</sup> Armstrong advertised in the postwar North his approach to creating “free yet disciplined” African American (and, later, Indian) citizens as “practical Christianity,” and he found that it struck a strongly responsive chord among the wealthy and idealistic elite of post-Civil War New England.

“General Armstrong,” as he was commonly known, embodied heroic, masculine force infused with an energetic, seemingly indomitable Christian missionary spirit—an irresistibly charismatic man well suited to America’s “age of energy.”<sup>37</sup> Historian Donal Lindsey noted the “commanding presence” of this man who “excelled at everything ‘manly’ he tried”; while Francis Greenwood Peabody, a Harvard professor who knew Armstrong in his final years, considered him a “present-day saint”: “If it be consistent with Christian saintliness to be virile,

daring, sanguine, brilliant, and sane; to work by faith when sight is denied; to communicate the contagion of a confident and sunny religious life; and to bear with joy the burden of a backward race, then the name of Samuel Armstrong is secure in its place among the saints of the modern world.”<sup>38</sup>

By 1870 Mary Hemenway was a central, reliable supporter and entrée for Armstrong to northeastern wealth. His daughter recalled that “a social introduction proved to be the very means whereby he was able to approach and to know charitable Boston.” She continued:

He saw that here was an opportunity to meet the people, many of whom had been friend to the rights of the Negro when abolitionism was unfashionable and who were the most ready of all in the North to help and understand his work. For their part, they saw in the freshness and vigor of his work, in his entire absence of selfish ambition and in his notable war record promise of future success. They were attracted by his delight in working for the right—his youthful buoyancy of outlook joined to intense moral earnestness, qualities that spoke of staying power and effectiveness.<sup>39</sup>

Armstrong and his young wife, like the Cushings fifteen years later, stayed with Mrs. Hemenway on their northeastern fundraising campaigns. Over fifteen years (1872–1887) she contributed thousands of dollars and personally provided fellowships for at least fourteen Hampton students—black, Indian, and white—over as many years. She also bought a nearby farm for the institute (Hemenway Farm) and provided the printing press on which the *Southern Workman*, Armstrong’s news and publicity organ, was printed.

Clearly, Armstrong was a man of charm, power, and persuasion, engaged (as he saw it) in the Lord’s business—“the good work.” He knew, too, the appeal of individual sponsorship as a way of encouraging personal investment in his enterprise. For example, a young African American man named Whit Williams, sponsored by Mary Hemenway, graduated in 1878 from Hampton and, at Armstrong’s request, offered the following reflection for the institute’s benefactors: “Figures and words will not show to them [the benefactors], very clearly, the hundreds of young men and women who, through them, are intelligent, influential, property acquiring citizens, who are doing a great deal toward solving the great race problem, but who, without help, would have grown up simple hewers of wood and drawers of water, ignorant tools in the hands of evil designing men whose chief business is to keep up race feuds and prejudice.”<sup>40</sup> Williams could hardly have

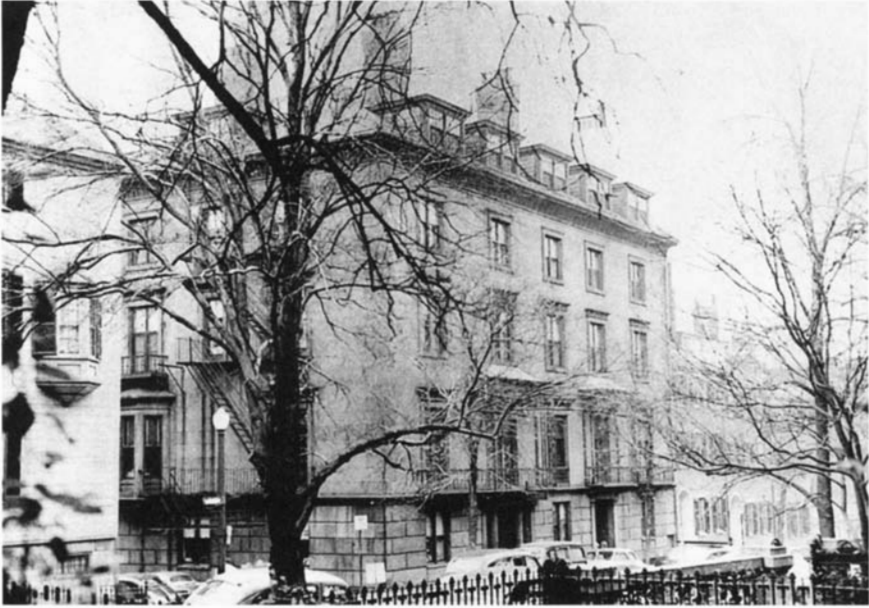


Figure C. Mary Hemenway's home at 40 Mt. Vernon Street in Boston. (Eustis, *Augustus Hemenway*, opp. p. 49)

realized how precisely he was addressing the dynamic of hope and fear and the accompanying moral and social vision that inspired Mary Hemenway's various gifts. Within that vision lay both a terrible fear of further social disintegration and a great hope of national redemption, with the prudent philanthropist standing vitally between the two.

Hemenway's most lauded act occurred in 1876, when she contributed \$100,000 to save Old South Meeting House, thereby preserving a national landmark and recommitting it to public service. Her "Old South work," as it came to be known, over the years involved, among much else, encouragement of schoolchildren's essays on American history, support for the historical studies of John Fiske and other professionals, and mass reprintings (in convenient pocket-size pamphlets) of significant documents in American history, from the Mayflower Compact to the Declaration of Independence. But above all it was preservation of Old South itself—the building, the place, the "very spot" of history—and her intention that it should stand henceforth as a physical reminder and a living historical presence that bespoke her concern for the preservation of national memory.<sup>41</sup>

The loss of shared memory, especially through the destruction of landmarks and monuments, haunted Hemenway's generation in the postwar decades. No observer expressed the feeling more effectively (or sardonically) than Hemenway's fellow Bostonian Henry James when he wrote (in *The American Scene*) that "the human imagination absolutely declines everywhere to go to sleep without some apology for a supper." James meant thereby to suggest the universal hunger for memory and its devices: "The collective consciousness, in however empty an air, gasps for a relation, as intimate as possible, to something superior, something as central as possible, from which it may more or less have proceeded and round which its civic life may revolve—and its dim desire is always, I think, to do it justice, that this object or presence shall have had as much as possible an heroic or romantic association." There seemed to be so little of the heroic or romantic in Gilded Age America that one had to look to the founding years of the Republic—or even farther into the past—for inspiration and integrity.<sup>42</sup>

Through her acts of historic (and prehistoric) preservation and his words of lament and exhortation, Hemenway and James pursued a common purpose: to "do justice" to American history and its monuments, both physical and textual, with an eye to integrating America's past with its future. They hoped thereby to counter the destructive force of industrialization and its progress.<sup>43</sup>

Knowingly or not, Cushing tapped these cultural concerns and personal enthusiasms through his performative, poetic, and scientific accounts of southwestern Indian life.<sup>44</sup> He presented Zuñi Pueblo as a pastoral world: a still integrated, functioning society of rhythmic, satisfying artisanal and agricultural work undergirded and regulated by religious piety—a hard and threatened existence in the late nineteenth century, to be sure, but one in touch with preindustrial artistic and religious truths.<sup>45</sup>

Hemenway first met Cushing and the visiting Zuñi chiefs in 1882 in Boston on their celebrated pilgrimage to the "ocean of sunrise." In fact, she had them to dinner at her home, as they later fondly recalled to her:

we still see the Shi wau o kía [Woman Priestess, i.e., Mrs. Hemenway] and her daughter [Edith Eustis], she who was endowed with the goodness of beauty; we still grasp their warm hands. Pleasant thanks! They too, it seems still remember us, for her good decorations make us to understand this. Surely! she feasted us. We did not like dogs press about her windows. She opened the entrance way unto us; she bade us enter; of her good tasting food we added unto our flesh. It is well!

We shall forever thus be friends each one to the others. Happily may she sit all days. Happily may she by good fortune grow old. Preciously may her trail of life be finished.<sup>46</sup>

Cushing, who often pushed his imagination to the edges of plausibility, was already speculating that Zuñi ancestors had migrated from the region of the Salt-Gila River Valley in southern Arizona, and he was developing his methodological conviction that ethnography was a reliable starting point for archaeological pursuit of the Zuñis' "Lost Ones" or "Ancient Ones." But his initial and enduring appeal for Mary Hemenway lay in his recovery and presentation of Zuñi folktales and songs. She delighted in such performances, just as she enjoyed the gospel singing of Armstrong's traveling Hampton Jubilee singers in the 1870s. Her niece recalled, "Oh, the long quiet summer days at Old Farm, ushered in by the birds, and by the singing of the Hampton Quartette, who awakened us by chanting the Lord's Prayer and Psalms. Their voices rose with ineffable and heavenly sweetness to our ears. Such a beautiful opening of our day."<sup>47</sup>

Hemenway's enthusiasm for Cushing's anthropology should be seen, then, as an instance of her concern to recover African American and Native American voices and meld them into the common, threatened heritage of the reconstructed nation. Accordingly, when Frank and Emily Cushing, Emily's sister Margaret Magill, and three Zuñi men spent the late summer and fall months as her guests on the northern Massachusetts coast, studying, recording folktales, and performing, they were laying the groundwork for an expedition that was intended to ground those stories, myths, and songs empirically in a deep, migratory history. Mary Dewey, Hemenway's childhood friend who lived nearby, described the sense of intimacy and sharing of those days:

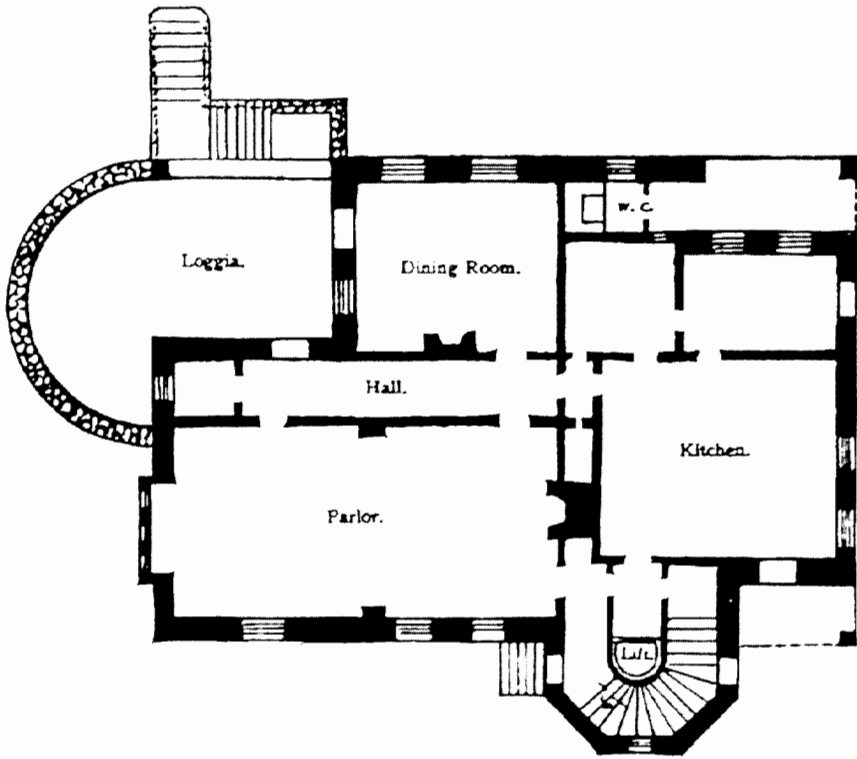
It is evening, and we have gone over to Casa Ramona [figs. D and E], and are sitting in the great parlor, for the August-evenings are chilly on the North Shore. Near the fire, in a large arm-chair sits Wai-hu-si-wa, our story-teller, his dark face half shy, half pleased at being the centre of attention. On a low foot-stool, almost on the floor, is Mr. Cushing, his slight, active figure and his face, with its striking combination of keenness and gentleness, eager and ready for the task of interpretation. The circle forms, and Wai-hu-si-wa begins his recitation in a low voice, sitting very still, and only making a little play with his hands, his arms resting on the arms of the chair. The language has a pleasant, melodious sound, but is of



Figure D. Casa Ramona, Manchester-by-the-Sea. (Sheldon, *Artistic Country-Seats*, 49)

course intelligible only to the interpreter and to the other Zunis, who listen with evident interest and satisfaction. Wai-hu-si-wa stops at the end of one or two minutes, and looks at Mr. Cushing, who in fluent English gives us what has been said, and then nods to the story-teller, who takes up the tale without delay or break and carries it a little farther, when it is given to us as before, and so on for one or two hours without apparent fatigue to speakers or listeners. The charm of these stories, thus told, is quite indescribable . . . but nothing can give the effect that this gathering into our very ears [of] these utterances of past centuries had upon us with Wai-hu-si-wa's dark, smiling face, and slight expressive gestures contrasting with his interpreter's highly cultivated intelligence, and both bound together by a common sympathy and appreciation which included us all, men and women, whites and Indians, in its great human clasp.<sup>48</sup>

Beyond the immediacy and intimacy of autumn evenings by the fireside on the Atlantic coast, Mary Hemenway was most anxious that the Indian stories be



## GROUND PLAN.

Figure E. A floor plan of Casa Ramona. (Sheldon, *Artistic Country-Seats*, 49)

placed in written form — so much so that, according to one account, she hid a stenographer behind a screen when Cushing visited for tea at her Mt. Vernon Street home.<sup>49</sup> Just as she retextualized American history by disseminating to public schoolchildren key documents of America's national history, Hemenway strongly desired that the spiritually and socially integrating stories of Zuñi Pueblo life be written down and made publicly available. As with her other "good works," she intended Cushing's sponsored anthropology in the Southwest to serve, ultimately, as a small counterweight, perhaps even antidote, to the dislocation and destruction caused by the unregulated commercial and industrial civilization of her time. It may not be too much to suggest that she sought, personally and for her society, relief from the recent terrors of history, perhaps physical and psychological places



of refuge and reverie (as Henry James might have expressed it, places of romantic, sacred associations), in order to do justice to history, including even history's manifest injustices.

The key to understanding Mary Hemenway's benefactions lies finally in her experiences with destruction and loss: destruction of national unity, loss of shared national purpose; destruction of cities and countrysides, loss of hundreds of thousands of lives; destruction of political and social cohesion, loss of civility; destruction of landscapes, loss of meaningful places; destruction by industrial "progress," loss of her husband, Augustus, to breakdown, mental illness, and final collapse. Like Armstrong, Cushing offered the antidotal vision of a redeemed and fraternal humanity:

We know what influences our future Ethnology is to exert on the political economy, as on all the burning humanitarian questions of that future which shall be its future. We know . . . that more than any science born of Culture, it already gives promise of usefulness, in fostering, in righting and in guiding the future intellectual efforts of our race; yet, in doing all this, and ten-fold more, in fostering, righting and guiding the Moral efforts of our race, our young Science will fast become pre-eminent. Has there ever yet been followed lovingly by men, a Study or Faith more calculated to establish peace and good will and Universal Brotherhood amongst all nations of the earth? Shall ours not, as a sweet young mother, demonstrate the relationship, the establishment in practice, of that which is to be the highest achievement of men — universal brotherhood?<sup>50</sup>

### The Itinerary: Narrating the Landscape

Frank Cushing was heir to a long-standing Euro-American tradition of male exploration and discovery that was characterized by a distinctive set of discursive practices. It was a discourse that combined the categories and activities of politics, commerce, and science into a common genre: part scientific observing and collecting, part travelogue, part adventure story, and part investment prospectus. Early-nineteenth-century precedents included Napoleon's scientific conquest of Egypt and Alexander von Humboldt's powerfully influential model of comprehensive exploration and reportage of South America.<sup>51</sup> Over time (and across languages), the names employed for the genre varied: *Voyage*, *Notices*, *Relación*, *Wanderbilder*, *Notes*, *Travels*, *Journal*, *Incidents of Travel*—these were some of the

alternative terms for a single knowledge process that was deeply embedded and implicated in the enterprise of Euro-American national and imperial power projection. The intended product was always a report back home on the nature of peripheral territories, landscapes, and peoples in the process of national conquest and digestion. As Mary Pratt has explained, the project of such exploration narratives was to “incorporate a particular reality into a series of interlocking information orders— aesthetic, geographic, mineralogical, botanical, agricultural, economic, ecological, ethnographic, and so on.” The expansion of natural history and other knowledge groupings was joined with the expansion of a global system of investment and appropriation into a single, powerful “planetary process” of expansion and domination.<sup>52</sup>

The “discovery” of the American Southwest in the nineteenth century was one variant of these global dynamics, and it was itself a process of long duration that evolved its own narrative patterns and practices. As literary critic A. Carl Bredahl has remarked, America’s national story has been invariably “western” in the following sense: “it is about going into uncharted, uninscribed territory both as narrative and as experience.”<sup>53</sup> In the decade following the Treaty of Guadalupe Hidalgo of 1848 the “uninscribed” territories of the Southwest gradually began to be inscribed, or textualized, for the first time for a national audience. The process was usually carried out by men on the move, and, not surprisingly, they followed lines of speculation and argument that had been under development long before the 1846 entrada of American troops into the region. Indeed, at least half a century of historical and speculative writing about Hispanic America predated the national acquisition of the Southwest and Alta California, centering on a set of puzzles involving prehistoric ethnological and migratory relationships between Central America and the southwestern deserts of the United States— a series of north-south hemispheric problems concerning the “semicivilizations” of the New World and past migrations between them.<sup>54</sup> These were precisely the questions to which Cushing would eventually return during the Hemenway Expedition.

American military invasion gave renewed vigor to this quest as well as a wealth of new, firsthand observations in the reports of army topographical engineers.<sup>55</sup> Commercial and military reconnaissance reports, too, followed after midcentury: Simpson’s journal of 1852, Sitgreaves’s report of 1853, Whipple’s *Pacific Railroad Reports* of 1853 and 1854, and John Russell Bartlett’s *Personal Narrative of Explora-*

*tions & Incidents in Texas, New Mexico, California, Sonora, and Chihuahua*, which he wrote while serving as commissioner to the United States–Mexico Boundary Survey Commission.<sup>56</sup>

At the end of the Civil War in 1865, most of the territory west of the 100th meridian was what might be called “unincorporated American space”—largely unexplored, undefined, and unoccupied by people who qualified as American citizens. As such it stood in significant ways still unmeasured and uncontrolled, economically and politically unknown, and culturally undigested.<sup>57</sup> As Kevin Starr’s studies of the dreaming and inventing of California have demonstrated, the decades after Appomattox saw the incorporation of western regions into the national imaginative and political domain as distinctive regional entities, based on landscapes, natural resources, aboriginal inhabitants, and the wishes and projections of travelers, settlers, promoters, and tourists.<sup>58</sup> With the completion of the transcontinental railroads—the Atlantic and Pacific (later Santa Fe) and the Southern Pacific—through New Mexico and Arizona in the early 1880s, popular defining and opening of these territories for settlement and “development” became a matter of some urgency. Indeed, the accelerating impact of the railroads on the flow of people, goods, and influence in and out of Pueblo country was immediate and stunning. As T. C. McLuhan observed in *Dream Tracks*, the railroads “set about . . . mining the landscape for culture, the culture for artifacts, and the country for tourist traffic.”<sup>59</sup>

Cushing’s expedition took place in the midst of this profound historical transition, and his Itinerary serves, among other things, as an eyewitness to the rapidly changing landscapes—natural and human—of northern and central Arizona in the mideighties. But his purposes cut more deeply than those of a transient historical observer. Like Powell in the Grand Canyon in 1869, Cushing sought to look beneath the surfaces of the desert to the cultural traces of the subsurface prehistoric and to the now hidden but still accessible processes that linked historic and prehistoric, surface and depth.

The case at hand, of course, involved the Zuñis and their ancestral “Lost Ones.” In his Berlin paper of 1888, in which he attempted to explain the logic of the expedition, Cushing announced that he had come to believe that every people carries “through all succeeding environments—relatively unmodified—the impress or the *Idea* of the earliest environment which affected their culture.” Accordingly, the tasks of the anthropologist are, first, “the ascertainment of . . . what *Idea* possessed” a people; second, an understanding of the origin and history of the idea;

and third, an awareness of how it influenced or modified all other ideas and institutions of the culture. Cushing had various terms for this dominant cultural idea: the “Culture-soul,” the “living soul,” the “dominating or all-fashioning Idea” of a people. But whatever the name, the search for the guiding principle within a culture’s history involved two stages, the first of which Cushing felt he had already accomplished at Zuñi: he had grasped the sevenfold (septenary) nature of Zuñi life and had isolated the search for the Middle (or Center) of the World as the organizing principle of Zuñi culture. It now remained for him, archaeologically, to trace both the Zuñis and their central cultural idea back through time and space to their origins. This was the focus and goal of his expedition: a specific (pre)historical and migratory sequence, paying special attention to the relationship between people and their physical environments through time. It is important to emphasize that Cushing argued for the tenacity of deep, original ideas—his entire method assumed their perseverance. Rather than being repeatedly shaped by environment and altered by historical experience, the mental structures of peoples, he wrote, give the framework to the world as they perceive it. These were the working hypotheses for Cushing’s archaeology in the Salt River Valley.

Initially, Cushing planned his expedition as a “reconnaissance,” following the models of the postwar geological surveys of the western territories, the United States Geological Survey parties of the early 1880s, and, more personally, the Smithsonian Bureau of Ethnology expedition of 1879 to Zuñi and other pueblos, under James Stevenson, which had brought Cushing to the Southwest in the first place. The common feature of these precedents was movement across space for purposes of mapping the landscape and assessing resources, with intermittent stops at places of particular interest or collecting promise. Cushing’s original “Programme of Operations,” submitted to Mary Hemenway and the expedition board members on 12 November 1886, envisioned a year of “thorough surveying, mapping, sketching, and excavation of the Ancient Ruins, Cave shrines, Burial-places, and other remains” along the Gila and its tributaries and, moving in a northeasterly direction, the river valleys leading toward Zuñi (Gila, Little Colorado, Rio Puerco), “including, of course, the making of exhaustive collections at all these places.”<sup>60</sup> The rhythm of the reconnaissance was double: alternating movement and stasis and a corresponding alternation between horizontal sighting across the landscape and in-depth excavation. The products of these activities were projected to be new knowledge of the human past, whose signs lay

within and beneath the visual landscape; an account of the process of discovery (the Itinerary); and material collections for Mrs. Hemenway's projected Pueblo Museum in Salem, Massachusetts. But the most important point to recognize about Cushing's plan is the indispensability and the intuitive nature of the knowledge that he personally presumed to bring to the process, as he clearly stated in the original prospectus:

My acquaintance with the subject and familiarity with the work in hand, as well as my knowledge of the system of distribution of the ancient remains throughout the region designated, *together with my ability to call Indian experience to our aid*—all fully warrant me in saying that . . . a unique collection, containing many thousand objects of Archaeological interest and value, will be formed. . . . Finally, in view of all this, *and of the understanding of these collections which my present knowledge of the modern representatives of the peoples who occupied the grounds our operations are to cover will give me*, I trust I shall be able to make these perhaps the most popularly instructive and scientifically valuable Archaeological Collections yet locally brought together in our country.<sup>61</sup>

In other words, the interpretive value and the meaning of the artifactual collections would depend entirely on Cushing's emic ethnographic knowledge. Further, the very locating of the ruins and remains in the first place would depend as well on Cushing's visual acuity and intuitive sense of the past human landscape. As early as 1880 Cushing had become convinced that knowledge of Zuñi history and culture was impossible without grasping the people's imaginative geography and the nature of its correspondence to actual places on the land—thus he traveled, after the first six months in the pueblo, in all directions to caves, shrines, springs, and mountains. Now, in 1886, he could write in full confidence of his own ability to “read” the landscape as he rode—a capacity, not coincidentally, that Powell had claimed for himself in the depths of the Grand Canyon. Where others might see mere sagebrush vistas, Cushing saw southwestern prehistory. A landscape is only truly understandable, Cushing staunchly believed, in terms of the peoples who have occupied it; accordingly, American settlers could never establish a legitimate claim to belonging in the region without somehow recognizing and engaging its indigenous occupants of past and present.

His capacity for “intuitive” or “Indian” knowledge of the land—as if he were in a sense tracing his own ancestors and thinking as they must have—runs as an insistent red thread through Cushing's account. Repeatedly we encounter the

moving image of Cushing, riding ahead of the wagons on his horse, Douglass, and visually scouring the valleys and deserts for telltale signs of previous “ruined cities,” as on 12 February 1887, at the site he named “El Ciudad de los Pueblitos”:

As I was about to descend from the mound I saw from the vantage ground I occupied, being on horseback, twenty-eight lesser mounds, seemingly so low and sloping that they might well have been taken for natural features, in every direction, near and far off. Riding down to one of these I discovered it was wholly artificial in origin . . . this led me to the inference, proven afterward to be correct, that the mound itself was but a great central structure—a citadel or temple—whilst these lesser mounds seemed then to me to be blocks or assemblages of houses in which the main population of this buried ancient city had dwelt.<sup>62</sup>

As in this passage, throughout the Itinerary Cushing positions himself as active interpreter between the expedition’s discoveries, his own daily observations, physical or climatic conditions, and the supposedly Zuñi-like reflections and ruminations of his own mind. Consider, more extensively, his account of the afternoon of 3 March 1887. The crew has been digging at the expedition’s first site, Los Muertos, for two days with rich initial finds, and Cushing is about to begin laying out the grounds for detailed excavation. He notes his immediate plans: to ask the artist of the expedition, his sister-in-law Margaret Magill, to be present for on-site sketching; to get a camera; and to push the digging hard for several weeks. Abruptly, though, Cushing’s narrative voice shifts as he remarks on the idyllic climate and purple mountain rims to the south and west. His mood becomes rhapsodic:

The sky, save for a few white and brown clouds hastily gathering today, so soft a blue, yet so bright, that it seemed more than tinted—alive with liquid turquoise as the ocean sometimes is—alive as a face is with blood. Then the great valley was raggedly green with mesquite groves, or olive gray with broad stretches of sage brush level as lakes, and the whole plain seemed to wave tremulously, yet very slowly, in the tremendous but always soft flood of light, as though this light were in some sort of luminous gauze, and were swayed from side to side by the ceaseless winds. The two Mexicans sang at their eager work . . . and the coveys of quail, scudding about everywhere under the bushes and across bare spaces, sang also for all the world like the fowls of an Eastern farmyard in springtime, but with a more gladsome and constant plaint.<sup>63</sup>

Cushing's reverie is suddenly interrupted by a violent late-afternoon monsoon that ends, however, as abruptly as it started, and a rainbow appears: "a splendid dazzling rainbow, double (and at one point triple), and connected, yet cut into sections, by radiating bars of prismatic color and light. There it bended, on hands and feet (so it seemed to Weta [Cushing's Zuñi companion]), over the whole great mountain-centered valley, between us, seemingly, and the flying clouds, and all the rain ceased far and near. Never before, except in Zuñi-land, had I seen anything approaching this in gorgeousness and sublimity—nothing ever so spectacularly swift!" The rainbow stirs in Cushing mind images of the Zuñis' great Man-Worm of the Skies devouring rain clouds, and he pursues the new connection:

The relation of such fleeting scenes and incidents as these to the primitive history for which we were delving after the material data is sharply illustrated in a discovery made long afterward by me in the Maricopa Mountains, just under where the sun shone so brightly that day, for there I found a triple arch crudely depicted . . . two lower segments of which were connected by radiating lines precisely as had been the remarkable rainbow we saw on our way. Further elaboration there was none, but the presence underneath this of an emblem or figure of the sea-serpent . . . so sharply undulated that it expressed the rapid fleeing away of that which, of course, in this connection it was merely designed to symbolize, namely the rain-cloud and rain—clearly showed that the Ancient City Dwellers, like the Zuñis of today, held to an identical mythical interpretation and belief regarding the God of the Rainbow and associated phenomena.

At this point Cushing's narrative shifts back to evening events in camp. But in this remarkable passage of storm-rainbow reverie Cushing has inserted the thread of his anthropological authority. Seemingly immersed in excavations, he experiences a series of natural phenomena. Drawing on his Zuñi knowledge-experience, he "ceases to wonder," as he says, that ancient Zuñis understood and depicted the rainbow as they did. This in turn reminds him of a rainbow petroglyph discovered nearby (after 3 March, but years before the writing of the Itinerary), thus providing proof, to Cushing, of connection between peoples present and past. In this manner Cushing both establishes and demonstrates his interlocutive position between past and present, between archaeology and ethnography, within the context of the daily, immediate events of the expedition. Through the interplay—and the play—between his imaginative sensibilities and those events,

Cushing creates an ethnographic past. The thread of authority runs, then, through three critical points: his field data and observations (the petroglyph); the events of the moment (rainbow/clouds); and his presumed knowledge of life at Zuñi Pueblo (the myth of the god of the rainbow). From these positions Cushing derives an interpretation, moving (along with the reader) from earlier suspicion or wonder—two of his most common self-descriptions—to explanation and final conviction.

Two weeks later, in the face of rumors of Apache violence, Cushing undertook with two companions a reconnaissance of the Superstition Mountains. Exploration in the face of danger is vintage Cushing, and the account of this two-day adventure occupies a significant segment of the Itinerary. It centers upon one eternally long, cold night of wakefulness in the mountains. As Cushing watches the shadowy mountain rims while his companions sleep, his imagination slips its moorings:

I constantly scanned, through the long hours that succeeded, all these cliffs and forms, expecting that at any moment others would rise up from amongst them and, if unseen in so doing, cheat my closest scrutiny by their mimetic motionless. No change in those outlines occurred, however, until their nature was fully revealed, and in such stately magnificence that description is belittling. Yet when the moon had fully risen, there even it stayed, fixed like the stars, and with all this wondrous change no change seemed to have been wrought save only in my own looking; all the world seemed as dead frozen and stony as before, I only saw more, and more than ever it seemed as if Time would never return,—never! No wonder that the Ancients of that wondrous land tell of the countless destructions of men, monsters and cities, whole countries and regions,—changed to stone everlasting! No wonder they sought such scenes as this for their mystic midnight rites and sacrifices, deeming these latter as lasting as the mountain caves they were laid in! And this thought became so suggestive, as with the growing light my dream of a dead and timeless nature became less dominant, that I felt already amply rewarded for all the toil and risk of our journey by this new light on our researches, dawning in my mind.<sup>64</sup>

As with the previous passage, the key term that Cushing repeats in this account of night in the Superstitions is “wonder”—“No wonder [they] tell,” “No wonder they sought.” And his reflections eventually, again, transmute the wonder of ignorance into the certainty of new knowledge.



On at least one occasion the Hemenway Expedition caravan was mistaken for a traveling circus as it wove its way down through the central valleys of Arizona: wagons, mules, and horses; Chinese cook, Zuñi Indians, Mexican laborers; the Magill sisters; Charles (“Don Carlos”) Garlick, quartermaster and head mule-skinner;<sup>65</sup> Cushing and his sidekick/secretary Hodge; and a variety of fellow travelers at various points along the way. Once encamped, they became a local phenomenon for Anglos and Indians alike, a curious community of inquiry in the desert, surrounded by the sights and sounds of a world that was itself in buzzing transition: “Our nights are enlivened by the brilliant brush-fires gleaming around us in all directions, near and far. The mesquite trees are cut down and burned in piles above their roots.”<sup>66</sup> A mere twenty years later, when Herman ten Kate revisited the site that had been Los Muertos, he could barely recognize a scene “changed beyond recognition”: “The white man has turned the sandy desert plain into green fields, many with alfalfa, and orchards with orange trees. A new life has developed on the ruins of the gray past. In the distance I search for the location where Los Muertos, the City of the Dead, was situated and where we camped, but I only see an ocean of green.”<sup>67</sup>

### Writing the Itinerary, 1890–1893

In early 1890, within a few months of Cushing’s removal as director of the expedition, Mary Hemenway’s close friend Mary E. Dewey was appointed to the expedition board and immediately began urging him, both directly and indirectly through Emily, to submit his written report.<sup>68</sup> Mrs. Hemenway, she informed the Cushings, had been seriously ill for a year with diabetes and was “obliged to be treated as an invalid in many respects,” but she was nonetheless anxious to publish the scientific results of the expedition no later than in the autumn of 1890. The projected volume was to include, in addition to a “prominent place” for Cushing’s account, contributions from Bandelier and Fewkes, as well as Dewey’s own reminiscences of the summer of 1886.<sup>69</sup> She exhorted Cushing “that there can be no more delay” since, as she put it, “priority of publication is as important for your reputation as for that of the Expedition’s.”

There was to be considerable delay, as matters turned out. Financially destitute, emotionally collapsed, and physically exhausted, Frank had already moved with Emily back to his family’s farmstead in Barre Center, a crossroads south

of Albion, a small town on the Erie Canal in northwestern New York. As the weather warmed in late spring, Cushing moved to a small cottage on the shore of nearby Lake Ontario, where he built a wigwam and experimented in pottery making with local clays:<sup>70</sup> “Our little place of refuge is a most picturesque cottage in thick woods whence only the broad lake can be seen — no sign of man save only the sailing-vessels and steamers that daily pass, away out on the water, eastward-, and westward-bound.”<sup>71</sup> Reporting to Baxter a year later, Cushing could still barely contain the excitement of his experiments with manual and mental development: “I would particularly like to tell you of the experiments — in the woods — on primitive handicraft, [which] the misery of my sickness and inability to write or even rest drove me into, last Summer, and of the beautiful thought suggestions and discoveries which resulted from such almost physical research. Herein is truly the Embryology of Culture!”<sup>72</sup> But the lakeshore retreat, while initiating a new phase of Cushing’s research, could not resolve the deep and lingering Hemenway troubles. As one biographer has aptly noted, these were desperate months, during which “he was in physical pain much of the time and in mental anguish almost all of the time.”<sup>73</sup> Even as he debated an opportunity to write about the expedition for a general audience, Cushing admitted to the editor of *Forum* magazine in August that “the need for getting on record the most interesting and significant results of the work of the Expedition . . . becomes daily more pressing.”<sup>74</sup>

Cushing constantly anticipated and repeatedly announced the arrival of improved health, but by the end of 1890 he had moved to Invalids’ Hospital in Buffalo; he was prostrated, often confined to bed, and still totally without income. His situation at this point was simply terrible, and it was further compounded by guilt and depression associated with the death, in childbirth, of Emily’s closest sister, Catherine, in early February 1891. “I have been, although better, very busy, very hard at work, worried at times and always tired,” Cushing told his mother.<sup>75</sup> Attempting to justify the continuing delays in his Hemenway report, he confessed to William Harris:<sup>76</sup> “It is only part of the two past horrible years — full, still, of lessons as of hardships, . . . that I recover from relapse but to watch day and night over me [Emily], who is ill and more, *needs* every comfort to lessen the sudden and sad loss of her nearest sister. For I had no way of taking her to the home she needs and is needed in, and must do all else for her I can.”<sup>77</sup>

At the turn of the year Cushing took the initiative to travel to Washington in order to talk directly with Harris with the goal of clearing up financial misunder-

standings and, possibly, laying out a plan for proceeding with his expedition report. The talks were seemingly fruitful, as Cushing was soon promising the first installment of the journal “for transmission as we agreed to Mrs. Hemenway.” “At least I promise to work faithfully and regularly,” he added after his return to Buffalo.<sup>78</sup> He arranged for Hodge, at the Bureau of Ethnology, to send him “notes” from the expedition—presumably from Hodge’s personal diaries, since Cushing had possession of his own daily reports from the expedition—as a basis for the first draft of what Cushing was now calling the “Journal.”<sup>79</sup>

Hodge’s ambivalent role in Cushing’s efforts to compose a narrative of the expedition now began to emerge, and as it did so potential strains in their relationship also first appeared. At the collapse of the expedition in 1889 Cushing had arranged for his future brother-in-law a position as assistant ethnologist in the Bureau of Ethnology. Hodge immediately took up his position in Washington and began laying plans for his marriage to Margaret Magill. At the same time he depended heavily on Cushing for his own bona fides in government anthropology. There is no small irony, therefore, in the situation that had developed by mid-1891: Hodge occupied a solid and well-salaried position in the government bureau, had fine prospects for marriage (he and Margaret were married on 31 August), and was preparing his first major works—drawing heavily on Cushing’s epistolary advice and knowledge—on the Salt River expeditions and on Pueblo synonymy for Powell’s perennial project, the handbook or cyclopedia of North American Indians; while Cushing occupied a position of exile and poverty, receiving in exchange from Hodge occasional “notes” from the expedition (and Bureau stationery).<sup>80</sup> Expressing both hope for his former secretary’s career and mutual antipathy, as he thought, toward Jesse Fewkes, Cushing was effusive in praising Hodge’s early work: “I want to tell you, my dear Hodge, how well I think of this piece of writing of yours. It is temperate, smooth, remarkably accurate. . . . You must go on with the writing you speak of. And I will repeat here my offer of every assistance I can give, in addition to my prediction of your entire success.”<sup>81</sup>

While Cushing was advising and encouraging Hodge (and sharing with him hard-gained information), Harris was lecturing Cushing on how to economize his energies and urging him on to vigilant efforts at producing the expedition report and other papers.<sup>82</sup> In early June he managed to simultaneously rebuke, exhort, and bribe the former director as he once again laid out Cushing’s tasks for him:

There are no hard things said against you as yet. There may be hard suspicions. But I am sure that Mrs. Hemenway not only has said no hard things but has not permitted herself to harbor any hard suspicions. The South West expedition has cost her something like one hundred thousand dollars. The results, as you know perfectly well, are so fragmentary and incomplete as to be worth very little. Your own labor can make these fragments so valuable that a hundred thousand dollars will seem a wise outlay for them. What is wanted is your written account of your expedition. That is the first thing. In the next place there is wanted a commentary on the specimens in the museum [Peabody-Essex Museum in Salem]. This commentary may go into the notes or appendices, to which reference is made in your report. Then thirdly, we may have your history of your many years' stay in Zuñi, and your recollections of the ceremonials and manners and customs of the people together with your reflections on those things. This will be a work of tremendous value, if you are able to do yourself justice in the writing of it. Fourthly, there should be your presentation of the original of one of the folk-lore stories, together with a translation of it, and a vocabulary. One of these stories at a time.

But I repeat it, the first thing to do is to give a written journal, detailing what happened at Los Muertos during the time your expedition was there. As soon as the first chapter of this is ready, please send it to me, and I will forward it to Mrs. Hemenway. It is my confident belief that money will come for the first chapter and more money for the second chapter; and that you will have a means of subsistence so soon as you get regularly to work on this journal of the expedition.<sup>83</sup>

At the same time that Harris was urging disciplined writing on him, Cushing received the first volume of Jesse Fewkes's *Journal of American Ethnology and Archaeology*, published by the Hemenways, and became furiously angry at seeing Fewkes's treatment of his Zuñi work. He fumed to Baxter:

Except in the most superficially descriptive way, it is utterly valueless, and inexcusable. It is the most astounding of the works of injustice done toward me . . . in the last three years. Not only does Doctor Fewkes preëempt my field, or rather, jump my claim, but he makes use of my material in their hands, freely, without even quotation marks where my own words are used. He seeks every occasion possible, for questioning my statements relative to the Zuñis—written and uttered, or for insinuating their unreliability or erroneousness.<sup>84</sup>

Until this point Cushing had assumed that his Zuñi folklore materials, which he had gathered in part at Mrs. Hemenway's estate five years before and which were

still in the hands of the expedition board, would await his eventual attention for publication — which had seemed, indeed, the import of his communications from Harris. Now the situation had suddenly turned for the worse. As he explained to Baxter, the folklore material “is the only material I had which was capable of immediate popularization, by which I have hoped, in my dark hours, to sustain myself in part when able to bring it out. . . . I shall have to take measures, legal if necessary, for recovering my writings from the Hemenway Expedition. You see I must live, and I am utterly destitute and not yet well. I cannot afford to lose all I ever had,—my original work and chance of further work.”<sup>85</sup>

The publication of Fewkes’s Zuñi work in the 1891 volume spurred Cushing into a flurry of activity in an effort to come to a workable understanding with Harris and the Hemenway circle not only for completion of his expedition Itinerary but also the reclaiming of his folklore materials. For weeks in June he took great pains to outline an agreement — “an entire readjustment of the work of the Expedition”<sup>86</sup> — with Harris; in the course of doing so, he also clarified his understanding of the arrangements that had conditioned the expedition in the first place. His own withholding of his daily director’s reports was more than offset, he told Harris, by the board’s “seizure,” from his Hemenway-built house in Zuñi, not only of all the other expedition notes, maps, and papers but of his folklore materials as well, “which, while chiefly written at Casa Ramona and with the generous assistance of Mrs. Hemenway, had yet no nearer relation to the Expedition than any of the rest of my Zuñi work done under salary of the Government.” Besides, Cushing added, he had only withheld his daily reports “that they might be rendered more intelligible and less liable to misinterpretation, intentional and otherwise.”<sup>87</sup> Cushing demanded as the chief conditions of continuing with the Itinerary that all these materials, including the Zuñi folklore notes dictated at Casa Ramona, be returned to him and that no further publications be issued on the expedition until he had published his report.

Harris responded by rejecting Cushing’s demands and reasserting Mrs. Hemenway’s legitimate interests in the folklore work as well as the expedition proper: “There is no other way that I see possible for the recovery of ground lost except to complete and forward the chapters of the journal of the expedition. These will build up hopes and will secure good will and probably invitations to new undertakings.”<sup>88</sup> Cushing then refused what he saw as a “humiliating concession” and repeated his demand to see Mrs. Hemenway personally. He also attempted to contact his original stenographer of 1886, a Mr. Leighton of Boston, in the hope

of somehow reconstructing the original folklore notes from Casa Ramona and publishing a volume of folktales himself.<sup>89</sup> By the end of June the argument with Harris had become a standoff.<sup>90</sup>

Cushing always spoke with more than one voice, and he always had more than one iron in the fire. While sincerely outraged by the publication of the Fewkes volume (and the clear message that, with or without him, the expedition board intended to go forward in retrieving Mrs. Hemenway's investment), Cushing had also been steadily writing through late spring and into the summer the paper that would become "Outlines of Zuñi Creation Myths." He initially considered the paper a study of dramaturgy in Zuñi ritual and dance, but from the moment of its presentation at the Washington meetings of the American Association for the Advancement of Science in August 1891 it was recognized as much more, a tour de force that provided a model for understanding the Zuñi septenary division of the world and its pervasiveness in the culture's processes and structure. "Outlines" became nothing less than the pioneering study of Pueblo social organization; indeed, it was probably this work more than any other that led Claude Lévi-Strauss to consider Cushing a brilliant precursor of structuralism.<sup>91</sup>

Cushing was fully aware of the importance of the Washington meetings and deeply proud of his paper: "I was able to make this an unusually complete and convincing piece of work—not only scientifically but also in relation to the various insinuations which had been made regarding the character of my work," he reported to his old California friend E. J. Molera.<sup>92</sup> And, indeed, the Washington meetings marked Cushing's return to the world of scholars. He was received at Section H (Anthropology), he told Molera, with "a regular ovation—as 'a man risen, as it were from the Dead.'" Powell discussed the paper at great length, "dwelling on its 'important generalizations and lines of new thought' as he kindly termed them" and "gave me more than my old place in Ethnology within a brief two hours."<sup>93</sup> Further, Cushing's ever-supportive mentor promised to publish "Outlines" as quickly as possible in the Bureau's annual reports with full-color illustrations.

Vindicated and triumphant, Cushing returned from Washington to upstate New York with confidence and energy. He immediately sent the paper to Harris, who read it a few days later to Mrs. Hemenway, her son Augustus, and Mary Dewey.<sup>94</sup> The gesture restored comity between the two men (Harris and Hemenway offered to publish the piece in Fewkes's *Journal*, an offer that Cushing firmly declined),<sup>95</sup> but Cushing did not resume his work on the Itinerary. Rather,

he applied his renewed energies to revising “Outlines” for publication and to composing “Commentary of a Zuni Familiar,” his contribution to a volume of poetry by Edna Dean Proctor proposed for publication by Mary Hemenway.<sup>96</sup> In November he informed Harris that he had decided to publish henceforth with Powell; at the same time he made arrangements to move to Washington, with the possibility—though not the certainty—of resuming employment at the Bureau. At the close of 1891 Frank and Emily Cushing were back in Washington; their two-year exile was over.<sup>97</sup>

The Cushings set up housekeeping in Washington with Emily’s sister Nell and Nell’s husband, George Payne. It was a convenient and soothing arrangement for both the sisters, and they frequently also saw Fred Hodge and their sister Margaret, who had moved outside the city to Garrett Park, Maryland, and were already expecting their first child. Despite having recently told Harris that he planned on publishing with Powell, Cushing began the year in high confidence and with the best intentions concerning the expedition work. Many of the questions concerning his handling of expedition finances seemed to have been settled in his favor, he had reasserted his intellectual superiority to Fewkes, and the “Boston people” appeared prepared to offer some concessions at last. Cushing explained to Ezra Coann, his banker friend in Albion, that the Hemenway circle had finally seen the light:

They also realize from recent accounts of my lectures and writings for the Bureau, that I am sure to take my old place in the scientific and literary world, and likely to advance therein, and hence that they are in danger not only of suffering thereby, but that they will be the losers rather than myself, my title to rights in the case being finally recognised. They are therefore increasingly fearful that they will lose utterly their work, but likewise myself and my future, to them, great possibilities in such works. They have moreover discovered, thus late, that Doctor Fewkes is both incompetent and unwilling from prudential considerations, to complete, as they it seems, hoped and intended he should, the working up of my material. It is now claimed by him—and will be, I suppose, by them,—that he wrote and published what he did, and said many of the things he did, “*in order to pique me and call me out*”!!! “*not knowing*” at the time “*that I was so ill and that this was the sole cause of my silence*”!!!<sup>98</sup>

His honor again intact, Cushing assured himself as the year began: “They in Boston find, two things. Fewkes can’t do it, [and] I have rights as well as they, and

am *not* in debt to them. This alters matters.”<sup>99</sup> He delayed plans for returning to the Bureau and set back to work on the Itinerary.

Powell had always been a steady supporter of Cushing, and although the aging major had his own growing troubles with the Geological Survey in Congress, his near presence now made a great difference in the younger man’s outlook—not the least because the Bureau offered alternative options for work, salary, and publication that Cushing, as we have seen, was not hesitant to employ.<sup>100</sup> Powell still hoped that the Hemenway family would publish Cushing’s work: “He [Powell] gives me my whole work for anyone who wishes to publish it rightly, and advises me to let questions of personal nature go by—for science’s sake.”<sup>101</sup> Finally, the news of Mrs. Hemenway’s battle with diabetes continued to be bad, and Cushing made a New Year’s resolution that “I will do what I can and am let to do before she dies, wh[ich] I hope will be years delayed!”<sup>102</sup>

Stocking up on his favorite “America’s Wonder” notepads, Cushing soon attacked the Itinerary again, and two days later he visited Harris’s office at the United States Education Commission. He came away with positive results: “Had amiable visit and have arranged to get stenographer and resume work to [limited] extent, my conditions having nearly all been conceded, virtually in withdraw[al] of Fewkes and promise of satisfactory salary etc.” He immediately arranged to employ Hodge to work with him on the Itinerary in the evenings.<sup>103</sup> Within a matter of days the Itinerary draft had grown to more than a hundred pages. Fred and Margaret reviewed their personal diaries and provided information, and by mid-month Cushing was writing his descriptions of the Salt River Valley and Camp Augustus.<sup>104</sup> But by the end of the month, following another conversation with Harris, relationships again soured, as Fewkes had (it appears) revealed plans to publish something on Casa Grande—another encroachment, as Cushing saw the matter.

Cushing concluded that the agreement with Harris was not as solid as he had thought: “I have not lacked for overtures and half pledges; but these have been not only too indefinite, but also, too conditional, and manifestly not single purposed.”<sup>105</sup> He came away dispirited and fed up: “Long talk. All sorts [of] points about me questioned. Don’t like the spirit at all and must try Bureau. If I cannot be trusted by these people why dally with [them]. Am so weary.”<sup>106</sup>

The following day (28 January) Cushing arranged to rejoin the Bureau on 1 February, taking the place of linguist and myth collector Jeremiah Curtin.<sup>107</sup> He decided to finish writing the preliminary chapters of the Itinerary over the next



weekend and not take the narrative beyond 2 March 1887—or about a month after the expedition’s arrival in the Salt River Valley and the initial camp.<sup>108</sup>

Over the next six months Cushing became deeply involved in the duties of his new job, chiefly working on North American mythologies—a long-standing preoccupation of Powell—and preparing the Smithsonian’s anthropological exhibits for the upcoming Chicago World’s Fair. He remained open to the possibility of returning to the expedition narrative but made the point repeatedly—to Baxter, Morse, Bandelier (who visited him in April in Washington), Garlick, ten Kate, and others—that the expedition had been stolen from them. At the same time, he showed some (temporary) softening toward Fewkes, claiming to discern some “improvement” in his insights into southwestern anthropology: “if this continues,” he admitted to Baxter, “I see no reason why he should not be able after awhile to replace me and my work as well as another; tho, naturally I would have liked my successor to love and understand me more, and more kindly, than he has or probably ever will; but a personal feeling of this sort has no place in science after all.”<sup>109</sup> It was not until July that he and Hodge again resumed their dictations and revisions; and on 18 August, on his way out of town to the American Association for the Advancement of Science meetings in Rochester, Cushing at long last personally delivered to Harris the first installment of the *Itinerary* with a bonus of Zuni folktales of Coyote and Woodpecker.<sup>110</sup>

As they had done the previous autumn, Harris and Hemenway (with Katherine Stone, close advisor and new member of the expedition board) sat down to read Cushing’s work in the evenings on the Atlantic shore. They were thrilled by what they read, both to themselves and aloud to Mrs. Hemenway:

You cannot easily conceive how delighted I was to get your manuscript [Harris wrote] and to find on reading it to Mrs. Hemenway & Miss Stone how fine it is in its English style: It is altogether an exquisite piece of English and the details are given in such a picturesque manner that one finds the landscape in his imagination vividly after many days. Mrs. Hemenway was so surprised that she could not really believe that she saw at last the manuscript (or a beginning of it). The Folk Tale was just what we wanted. Your literal translation (found after I saw you & read at Manchester) was read one evening by Miss Stone.<sup>111</sup>

Once again Cushing felt grateful and enlivened, for both the “commendatory” words, the “delicacy” and magnanimity of Harris, and the money; and once again

he saw the expedition work in a hopeful light: "I begin to perceive—or think I do,—that someday, without knowing quite how, I shall find that every thing has been worked out to a good end, and for a good and full achievement of what we all once aspired to and all now so sincerely hope for, by one and by another of us all, but by you more than by any of us all. In that day I will not be alone in my offering of grateful thanks to you, so much as I am to-day, but I will scarcely be more sincere."<sup>112</sup>

Cushing set to work again on the narrative, but after only a few weeks all the goodwill again blew to pieces when Harris proposed, on behalf of Mrs. Hemenway, that Cushing's Itinerary be placed in the hands of Fewkes for reviewing and editing. Since Fewkes was in Spain for six months on Hemenway business, the plan would delay any action toward publication. Cushing was incredulous and furious, and Baxter's advice added to his determination not to cooperate with such an arrangement: "Such a fellow [Fewkes] is not to be trusted one inch out of sight. In any arrangement you may make you should have it clearly understood that you are not to be associated with him in the slightest degree, and that he is to have no supervision over your work, editorially, advisory, or otherwise."<sup>113</sup> Baxter was deeply sympathetic with his friend's dilemma and unsparing toward "the Boston codfish" Fewkes: "Even without his trait of meanness and treachery he is made what dull, unimaginative plodders always prove to be in all departments of research when raised to any position above that of ordinary routine calculators or recorders—a dead weight and a wet blanket upon progress."<sup>114</sup> Finally exploding in frustrated rage a few months later, Cushing released years of anger toward the man who had presumed to replace him on the expedition:

They continue to urge me for the Itinerary of our Southern explorations—the only thing their "Agent" didn't succeed in making away with—, yet wish my manuscripts for examination by Doctor Fewkes, before they can decide on the conditions of publication I make!! To say nothing of the man's past relations to me, I think the proposal to submit my manuscript to such an utterly incompetent judge of Ethnologic data, as that stupidly indiscriminating and perspiringly painstaking recorder of meaningless, disjointed, random half-observations of mere tribal externalities, always misnamed, (and yet, invariably set forth as accurate scientific material for future use!)—is the most presumptuously insulting proposition on the part of those who once so heartily endorsed my interpretive methods, that could be offered.<sup>115</sup>

With the new year Cushing relented and vowed, once again, to “publish, publish, publish.”<sup>116</sup> He proposed to Harris a series of volumes that would comprise the Itinerary and probably Zuñi folktales, beginning with the “introductory” manuscript submitted the previous August. While preparations for the Smithsonian’s Chicago exhibits took up more of his time each month, by mid-February he was once again dictating to Hodge in the late afternoons and evenings and finding he might be able to make a “very complete report,” after all, of the early excavations.<sup>117</sup> Indeed, as he rediscovered illustrations, site plans, photographs, and letter books he noted his surprise that “the material is more abundant than first seemed.”<sup>118</sup> During these weeks Cushing dictated steadily to Hodge, worked assiduously on mapping the ruins (“not very successfully [it must be confessed!], but faithfully,” as he admitted to himself), and made the sketches that would accompany his report of the first weeks of the excavations.<sup>119</sup>

But then suddenly on 18 March Hodge balked. Though the historical evidence is meager and ambiguous, it now appears that Hodge protested against any further use of his expedition diaries as sources for the Itinerary on the grounds that they were his personal property. Cushing argued that on 31 March 1887 he had directed Hodge to “keep the Itinerary of [the] Expedition” and that, consequently, he as former director had claim to Hodge’s diaries as the official record from that point onward: “I told him that this was simply true and that [the] right of the Expedition to his material through me as director, was unquestionable. His attitude in this is not honorable in that ethical sense and it disturbed me.”<sup>120</sup>

Hodge’s diary for the relevant dates is unclear. While his entry for 31 March 1887 makes no mention of a request from Cushing to keep an Itinerary or narrative record, two days previously (29 March) he notes that he has begun “a synopsis of the doings of the party, from the time we reached Albuquerque [30 December 1886], to-date”; and three weeks later (on 20 April) he records: “I worked to-day on the ‘Itinerary’ until lunch-time.” While we will probably never know whose memory recalled more precisely the understandings of March and April 1887, there is certainly indirect evidence that Hodge was directed to keep, and was keeping, some sort of record of events but possibly separately from that of his personal diary. At the same time, Margaret Magill was keeping a diary (often quite hilarious) of events over the same period, and Cushing was drawing on this memory source as well.<sup>121</sup> Thus when the collaboration on the writing of the Itinerary effectively ended in mid-March 1893, Cushing lost the use of both Hodge’s and Magill’s diaries. Although he and Hodge continued to work for a few more

weeks together, their relationship became badly strained until Cushing stopped work altogether on the draft of the Itinerary.<sup>122</sup> He never returned to the project. Cushing called 14 April 1887 “the most interesting and significant day we had yet spent among the ancient ruins of the farther Southwest.” Written in the spring of 1893, these were the last words of Cushing’s Itinerary of the Hemenway Expedition.



PART II



Envisioning an Expedition



## Introduction

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Cushing wrote two accounts of the formative months of the expedition at Mrs. Hemenway's summer home on Massachusetts's North Shore, and we have combined them here: a very brief introduction intended as a description of the circumstances of Hemenway's original proposition; and a more substantial set of "notes" focusing on the activities of his three Zuñi friends who visited that season at her home. Cushing probably intended the notes—some of which may have originally been made by Hemenway's close friend, Mary Elizabeth Dewey—to be part of his recording and study of Zuñi folklore, in which Hemenway took a deep and abiding interest. With the arrival of the Zuñis on 13 August, the gathering at Manchester-by-the-Sea took on a sense of cross-cultural intimacy mixed with serious ethnological intentions. Cushing and Palowahtiwa shared their dreams, whites and Indians introduced each other to their religious worlds, the men shot bows and arrows in the orchard by the shore, and Cushing and Hemenway made commitments to a southwestern expedition. The account ends with a letter from the three Zuñi men and Cushing ("Tenatsali") to their friends back in the pueblo.





# Preliminary Report, or Itinerary, of the Director of the Hemenway Southwestern Archaeological Expedition

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Little in the way of introduction seems needful to this simple narrative of my doings and movements, discoveries and observations, motives and efforts, while acting in the field, from December 13th, 1886 to October 20th, 1888, as Director in charge of the Hemenway Southwestern Archaeological Expedition.<sup>1</sup> For, properly, this report should follow one less official, less extended and detailed, more popular, and if possible far more entertaining, on the Summer passed by me with three of the Zuñi Indians under Mrs. Hemenway's friendly and ever sympathetic patronage, in one of her beautiful Summer homes, at that time Casa Ramona, near Manchester-by-the-Sea.<sup>2</sup>

The tale of this ever to be remembered Summer [of 1886], with its picturesque incidents and contrasts of the olden and the new, with its wealth of stories told by our dusky guests—as it were to the Ocean and the land of light, from the Desert and the realms of night, so old their theme and setting—must, however, be reserved for my maturer literary efforts; for days when my strength will have returned, in lightness of heart as of head.

Within that story—as the very outcome of its essence and beauty, will be found the causes which led Mrs. Hemenway, ever devising good, it seemed to me, to conceive the greatness and the purpose of the work it is the mission of these pages

to only too soberly record. No small part of the closing chapters of that story will be the history of the growth of this idea and its consequent embodiment in plans by Mrs. Hemenway. But I would not rob that first part—what though destined to be the last—of this its crowning good, by relating it here even in outline. I will rather pass on to the first definite propositions made to me by Mrs. Hemenway, whence grew within a few weeks the organization with which justly to all it seems to me my report properly begins.

One afternoon, late in October, 1886, Mrs. Hemenway invited me, with evident particularity, to call in the evening at her other and more beautiful home near Manchester, Meadow Beach, saying that her friend, and mine, Mrs. Martha LeBaron Goddard, (since alas! lost to us) would be there, and that she was very desirous of talking over some interesting plans for the future of the Casa Ramona, or, more particularly, the Zuñi researches, of which she had been of late thinking a great deal.<sup>3</sup> In other conversations, previously, I had referred to various earlier writings of mine, touching more or less on the subject of what I supposed should be the future of such work, and especially amongst these, a letter written during my early years in Zuñi, to Professor Baird and Major Powell,<sup>4</sup> then my joint directors, as well as to a lecture on the Seven Cities of Cibola, in which I had at last been able to locate those until then mystical places of old Spanish narrative, as at and around Zuñi itself.<sup>5</sup> As in the midst of the interesting work at Casa Ramona opportunity had not arisen for the reading of these, Mrs. Hemenway expressed at the same time a wish to hear them, and that her friend also might hear them. I may be pardoned if I give a somewhat particular account of that evening's readings and discussions, because definite arrangements for the organization of an archaeological expedition to the fields referred to in these papers, were then first begun.

This very naturally led first to the reading of the letter, which I think I cannot do better than reproduce here, and then of the paper in question, which I also reproduce, since it will be seen hereafter in these notes it has an important bearing upon the work of the Expedition which was afterward organized, as well as to some extent no doubt upon the shaping of the organization itself.

Notes Made during a Visit of  
Palowahtiwa, Waihusiwa, and Heluta at  
Manchester-by-the-Sea, Massachusetts, 1886  
[11 August to 12 October 1886]

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On the eleventh of August I received information from my brother, by a telegram, that he had arrived with a party of three Indians in Albion, Orleans County, N.Y.<sup>1</sup> We instructed him to be prepared to join us here at Manchester-by-the-Sea, on Friday, the 13th of August. Mrs. Hemenway invited a party of friends to be present at my meeting with the Indians. Later I learned by letter from my brother that the names of these three Indians were Palowahtiwa, my adopted brother, Waihusiwa, and Heluta.<sup>2</sup> I was therefore prepared to say to Mrs. Hemenway's friends that the meeting would be a very interesting one. It may be imagined that I awaited with great interest this arrival. It took place at noon of the day mentioned. Mrs. Hemenway and her friends were gathered together in the drawing-room of Casa Ramona, as we have named it, while I went forth to meet the carriage as we saw it turning the corner of the lawn. When the carriage stopped before the door, my old brother Palowahtiwa was the first to descend, closely followed by the others. Before he had fairly stepped to the porch, he extended his hands and grasped mine, and, withdrawing a little under the shade of the awning, he placed his arms around me, and began the usual prayer of greeting between the members of the priestly order of the Zuñi who have been long separated. The Ritual which he

pronounced, and which is always couched in the same phrases, is of considerable interest and beauty. It runs somewhat as follows:

[no account follows]

Now it should be mentioned that Waihusiwa, although the son of one of the chief priests of Zuñi, does not himself belong to the priestly orders. His greeting was therefore much less formal, being confined simply to the ordinary greetings of the day in Zuñi, with the addition of "Tom tekohana anitchianaptu" ("May the light of the favor of the Gods be upon you").

Heluta, the youngest of the party, is one of the four priests of Zuñi who hold in their keeping the epic ritual of their people. He is also a member of one or more of the priestly medicine orders of the tribe, and consequently his greeting was similar, mainly, to that of Palowahtiwa.

It may be well, however, to mention these differences as illustrating the varying relations which are supposed to exist between the priests of one order and those of another toward the same gods.

As soon as these greetings were over we entered the room where Mrs. Hemenway and her friends were gathered. Mrs. Hemenway and Mrs. Cushing came forward. The Indians each greeted, first Mrs. Hemenway, and then the others, with the usual Zuñi salutation, "How have you these many days been?"—at the same time breathing on their hands and on the hand of those whom they greeted, at least of those whom they considered the most important of the party. We then went through the house to the rear porch, and took the seats which had been placed for us, and the two younger members of the Zuñi party first enjoyed a fair view of the ocean. Their simple exclamation was, "What a wonderful and delightful world this is." I asked for various friends in Zuñi, and they replied by giving a brief history of the doings of each since I had last been in Zuñi. They then began to relate also, very briefly, a history of their journey eastward with my brother. Heluta referred to the earliest impression he had of the extent of our population and civilization by saying that at the first village or city which they entered—a city magnificent in extent to their eyes, and standing upon bluffs under which ran a railroad—Kansas City, it seemed to him as he looked out of the windows, along the streets and ways, somewhat as some extremely difficult thicket and tree-entangled road in Zuñi land seems to a hunter: that it seemed to him as though he were facing such an impossible, impenetrable thicket, and that every branch and twig became suddenly a man or woman or child, every trunk or large bough some vehicle with horses or other creatures drawing it, and that it

would be no more easy to pass through that entangled mass of humanity than it would be for a man, without cutting his way, to pass a close thicket of piñons and cedars. Then he spoke of the marvelous fields of maize, which lay spread out, to use his words, like the plains of grass under the mountains of his own country, along either side of the way.

Here Palowahtiwa interposed and took the lead in the conversation. He said that from the time when they left Zuñi twenty-two days had passed. Two days they journeyed from Zuñi to Fort Wingate; a day at Wingate, and in the night they came, without laboring in travel, to Albuquerque, or the Town of the Great River [Rio Grande]. There they remained a part of the next day, and toward evening entered the train of houses which came from the south, and travelled a day and a night until they had passed the mountains and dry plains and valleys of the Zuñi country, and entered into the level country, where of old the buffalo wandered, and where you could still see his trails and wallowing places. A day more of journeying and they came into the village or city mentioned by Heluta. Two days more, and they entered Chicagokwin, where, Palowahtiwa reminded me, on the former occasion of his coming east [in 1882], he and his companions on that journey had been bathed in burning steam, and had afterwards been taken to see three of the monsters of the great ocean—sea lions—who accepted thankfully and joyfully their greetings and sacrifices of prayer meal. He said that toward evening of the next day they left this city of the great lake and entered another city of another great lake, [of] which, although they could not see it, they had been aware they were travelling along the side throughout the night. They were met [in] Chicago, he said, by a very large and virile friend of my elder brother, Dr. F. G. Sherwood, who had journeyed with them to this second city of another great lake. This friend took them with my brother to a house very carefully and hastily, and very secretly disposed of by the virile friend and elder brother, in an upper room, where the former, spreading out his hands and talking with them as best he could, explained that the fine white cloths hanging about and the bowls of shining pottery were for the washing and drying of their hands and faces. "Then he further told us," continued Palowahtiwa, "as best he could with his hands, that we were like, well, precious things of apparel which women put away in boxes, hidden. By all this we understood that we were to cleanse our faces and hands of the dust of the journey and sit still in this room. But not long had we to sit there, when there came a great fool of an American young man into our very midst, without manifesting the least shame. Yes, he was a great

fool, except in his own estimation, and therefore he said to me, 'Oh, yes, I know you, you are Sioux.' 'We are not Sioux, but Ashivi,' said I; to which he paid not the slightest attention, but when he was presently joined by two or three others, women I think, turned to them and said, 'These are Sioux. I know them very well.' Then he began to touch us, and pick at our clothing, thereby preparing himself to be unto us, by his shamelessness and impertinence, what water is to the fire, a disturber of our peace. And there would have been a pretty mess of things altogether, considering that we were preciously hidden away, had not the virile friend of your elder brother and your elder brother soon returned, and cast these foolish, self-conceited, noisy-mouthed people out of our sitting place. That night we came to Tchotchis Village — Georgia's Village" (by which the old man meant Albion, N.Y., the home of my brother's wife). "Here we rested very pleasantly all night. The next day sometime came your father, Thomasy Cushie, with your elder brother, younger than the other, and some friend or relative young men, in an ample wagon, and we understood that they had come to take us to the home of your mother.<sup>3</sup> Said your father, Thomasy Cushie, to your elder brother, (so we supposed) 'Do these young men speak Mexican or Spanish?' 'No,' said your elder brother, 'but the oldest one' (myself) 'understands it well.' Whereby we were led to suppose, ah, ha! in journeying to the home of his mother with his father, Thomasy Cushie, we will not go as people dumb for want of hearing, but entertained with conversation. Now, therefore, when we entered the wagon, and had driven on some way, (I was sitting between your father, Thomasy Cushie, and your brother, elder, younger than the other,) we all turned our faces and eyes expectantly upon your father. And thus we drove on for a long way, and still with our eyes and faces turned expectantly in the direction of your father, Thomasy Cushie. Now, your brother, elder younger than the other, is a man who does not speak much, but jokes much without speaking. When he saw how my ears were turned towards your father, Thomasy Cushie, who had his head bowed as though he were thinking something he had forgotten, he, this brother of yours, who has a hard thumb, extended it out from his hand and punched my knees with it, and smiled under concealment with his eyes, whereat we all laughed exceedingly, and nodded our heads, and intensified our expectancy. Still we drove along in silence; neither the silence ended, nor our expectancy grew less, until your brother, elder, younger than the other, punched me so vigorously with his hard thumb that I said, 'Hold! This may be a practical joke, but it hurts me. Now, punch your father, Thomasy Cushie; perhaps that will remind him of what he is thinking.' Still never

a word, and we drove on and on, would you believe it, until we reached the identical little valley that descends past the home of your mother, and when we had come to the home of the horses, which as you know, is somewhat this side of the home of your mother, once in Spanish spoke Thomasy Cushie, '*Aqui mi casa*,' (Here my house). 'Indeed, my poor father,' said I, 'do you live with your horses now?' Well, we said to one another, 'When water or speech begins to flow, it is more likely to continue.' And we began to query as well as listen, but no other word did he say to us. After we had greeted your aged ones and relatives at the home of your mother, and had eaten and sat down to smoke, your father, as best he could, explained to us that he could not talk just now, but went away to write you a letter, I suppose."

"Was my father pleased to meet you," said I, "and did he treat you kindly?" "Ah!" said they, "not only kindly, but he fairly pampered us for two days, would not let hold of our society for so much as the doing of an errand, but took us round about his great woods, where to while away the time in submitting to his attentions my two younger brothers here shot at the birds which were continuously passing over with their arrows. Then suddenly there came a change, without any apparent reason; he wholly let go of our society, and left us utterly forlorn. The second day after this there came a man with a very gray but crooked beard, who drove his little wagon close to a post on the top of which stood a box. And in his hand he had a bundle of papers which two or three times he extended towards a small hole in this box, like an old woman whose sight is not good trying to thread a needle; and I saw among these papers one whiter than the rest, with a red mark on it, which I know to be, though at such a distance, the impression of red gum of your totem. 'Ha,' said I to them, 'this paper comes from our younger brother, who is wherever he may be, and sends us greetings, no doubt.' Then your grandmother—by the way, do you know that I saw your grandmother too, whom I did not see the other time?" "Yes," exclaimed Waihusiwa, straightening himself up, as if to tell a folk-tale, "in the days of the ancients they dwelt on the top of Thunder Mountain with their mother's aged mother—" "Hold your tongue," said the old man. "It was this time, not long enough ago for folk-tale. And fine specimens of heroes you two are! Yes, my younger brother, I have met your grandmother, and although very aged and exceeding dry of flesh she is young in activity and speech. So she quickly ran out towards the box into which the crooked-bearded man had placed these papers, and opening the lid, drew them forth, and came past us, holding one of them in particular, which she told us came from Tenatsali.



'I know,' said I, and I pointed to the mark of your totem, which was made with this ring you have on, according to your custom. Now, presently your mother called to us from inside of the house, (we were on the veranda, drilling shells) and, said she, as well as she could, 'Here is a paper to his father, Thomasy Cushie. Take it to him.' 'Where is he,' said we to one another. 'Who knows?' said one. 'Well,' said I, 'yesterday morning, when for some unknown reason he let go his hold of your society, I saw him with papers under his arm, and a big straw hat on, walking down toward his woods, where, as you know, he has a small hut of cloth, and where it is his pleasure, notwithstanding the mosquitos, to sit, when he has let go of our society or that of others.' 'Run,' said I to Waihusiwa, 'take this to him. It may be word from our younger brother.' So away ran Waihusiwa. Then again called your mother, and said, 'See here. This letter is from Tenatsali;<sup>4</sup> run and take it to his father, and he will be able to talk with you most quickly and joyfully.' Heluta grasped the letter, and ran away, following in the trail of Waihusiwa."

At this point Heluta took up the conversation: "Yes," he interposed, "and when I arrived at the place of the little cloth hut in the woods, there sat your father, Thomasy Cushie, with his front eyes [glasses] balanced on his nose, looking at that paper which Waihusiwa had given him, and when he had finished it, we stood in front of him, both looking down expectantly; and he nodded his head, then folded the paper and put it into one of the little bags [pockets] in his coat. Then he went to making marks on his paper, as he had been doing before, and I handed him the paper they had given me, which they said was from you, and he tore it apart, and looked at it through his front eyes, then turned it over, then turned it back, and looked at it again, but never said a word. Then he looked it all through again, and never a word. Then he rose up, and took off his front eyes, and put them into another little bag in his coat, and never a word said he, and he turned, and without ever a word started away through the woods, and like two poor dumb little puppies we followed him without ever a word. He did not go home, but he led us to the home of your brother, elder, younger than the other, whose wife called him, and when he had come, your father, Thomasy Cushie, said to him something about a wagon, which we knew meant a *tatopolonna*. 'Ah,' said we to one another, 'he is sending for his' (that is my own) 'elder brother.' So after all, you see, your father, Thomasy Cushie, had but one speech: 'Here my house,' said he, when really his house was over there some ways off."

The report of this speech, freed of its significant gestures, and utterly robbed

of the genius of narration which dwells in the Zuñi tongue, but dimly represents the comicality of the narrative, which was designed to be humorous, as it seemed to me when I heard it, and to my friends when I translated it to them.

“No,” added Palowahtiwa after a while, “your father, Thomasy Cushie, is not a bad man, but an exceedingly good man. I esteem him highly, but I love to speak of him always as I do, and when I think of him it is in the same way, because he is such a strange and funny man. He was very kind to us; he took us to Wilum, the pounder of iron, who not only made many arrow heads for us, but gave me a strange kind of Indian moccasins, covered all over with beads, much unlike those we wear in appearance, but like them in form. He is a good man, this Wilum. Some time in the night, your elder brother, younger than the other, and your eldest brother, came home, and then for the first time we heard speech, and ceased to be dumb: that is, with any satisfaction. Your brother Enosy told us most clearly, as if indeed it were with your own mouth, what you had written, and we knew that in five days we were to meet you here beside the great waters. One day they took us away from the home of your mother in a wagon to Tchotchis Village [Albion], where towards evening your brother Enosy placed us in a room all by ourselves, with large bowls of metal and wood, which they filled with hot water. Then they gave us foam cakes and big brushes, and told us to wash ourselves, which we did with great pleasure. And that night, behold, we entered into a house of the iron road, with beds like the shelves in a wall, where we slept until morning. Now, here we are, thanks be to the beloved! After growing strong with anxiety many times and much, we behold one another, my younger brother, and grasp each other with warm hands. I know this country perfectly well. It is the border end of the world. Why, over yonder,” said the old man, extending his hand exactly in the direction of Deer Island, “over yonder, out of sight from here, we made our first greetings and prayers to the beloved of the waters.”<sup>5</sup>

Soon after I went through the ceremonial of the Smoking Kin—rolling a cigarette, drawing four whiffs from it, then presenting it to the mouth of my elder brother Palowahtiwa, who drew four whiffs from it and returned it to my lips, exclaiming “Suemo” (verily my younger brother); to which I replied “Papamo” (verily my elder brother), drawing a whiff from it, and then I gave the cigarette back to him, that he might continue smoking it. I thus made a cigarette for each, going through the same form with each. As they received these cigarettes, they stealthily smoked to the Six Regions, and prayed to the Gods dwelling in them: then resumed conversations.

“So these sitting here round us are the Shiwanok’ya Mother” (Mrs. Hemenway) “and her friends, are they?” said Palowahtiwa, waving his hands towards our visitors. “Some of them I know; some I know not, not having seen them. The mother, and her sister of the generous, pleasant countenance” (Mrs. Goddard), “user of the left hand as the right, Weshik’yana” (Professor Morse),<sup>6</sup> “Thliákwa” (Mr. Baxter, the Sacred Blue Medicine Stone)—“these I know, having seen them. I know these two when first they greeted my sight this morning, Thliákwa at the railroad-end in Bostonkwin, and Weshik’yana when he came in at the village down here on this road. So their questions are needless,” said he, with a knowing but sly look, as he perceived that the latter was asking precisely the questions which he was already answering.

As soon as our pleasant party had broken up to prepare for dinner, I led the Indians to the suite of rooms in Casa Ramona which Mrs. Hemenway had set aside for their use. They were delighted with them, but thought them too many at first. They spoke of the rest and pleasure they would have in them; but lingering only a little to examine them, mentioned a wish to visit the rocky shore below and make their prayers to the Beloved of the Ocean. I immediately guided them down the path that runs along the promontory, keeping close to Wáhusiwa and Hé-luta,<sup>7</sup> in order to see what effect the near approach to the water would have upon them, and hear what remarks, if any, they would make. When we descended the sloping rock, (accompanied, I should add, by Mr. Baxter and Prof. Morse) against the base of which the waves were beating quite strongly, I noticed that my two younger companions began to tremble quite visibly, while Pálowahtiwa, who had witnessed this phase of the sea before, stepped boldly down, close to where the waves were breaking, drew forth his pouch of prayer meal, took a large handful of the sacred substance, and began his ritual. Controlling themselves perfectly, the two younger men followed his example, one of them stepping nearer to the breakers than even Pálowahtiwa had done. There was no exclamation made by any one of the Indians, no uplifting of hands, no voluntary manifestation of feeling of any kind whatsoever, except that of reverence exhibited in their bowed attitudes and fervent prayers. As these progressed, the tide having just turned, the water began to come in more strongly, until large fragments of it, as it were, were thrown against the legs and feet of the worshippers, and the waves seemed to reach up towards them. I could see that the two younger men trembled more and more, intoned their prayers more and more solemnly, but this was all. Just as Pálowahtiwa ended his prayer, and cast his sacred meal into the water, a large

wave broke at his feet, wetting the soles and upper parts of his moccasins; whereupon he, turning with a look of satisfaction, but no word, towards me, reached his hand out over the edge of the water, raised himself to his full height, and holding his palm upward as though he had some invisible fluid in it which would be spilled, brought it to his mouth and breathed deeply from it. The others finished their prayers as he had, looked neither to the right nor to the left, but only downward, and walked away. I was just beginning to call Pálowahtiwa's attention anew to some of the things which he had seen at the ocean-side before, in order, without seeming to do so, to tell the two younger men about them when, on turning to where I had last seen them, I observed that they were again praying close to the water's edge, even more fervently and lengthily than before. So we left them alone there, and strolled towards the house, Pálowahtiwa accompanying us. The others soon joined us, but not a word did they speak of the many thoughts which must have been occupying them.

We returned to dinner, and in the afternoon joined Mrs. Hemenway and her guests at her beautiful little cottage among the walnuts, across the meadow from Casa Ramona. Soon a game of archery was started. Pálowahtiwa was most ready to join it, and shot with extraordinary skill, considering the fact that our bows were so much longer than his own, our arrows of different weight, and our targets not the living things which he had been accustomed to. A most fascinating description of this novel scene by a New England seaside home has been written by Mrs. Goddard, so true a description, at least as relating to the Indians, in the main, that I cannot but incorporate it in this fragmentary journal.<sup>8</sup>

After tea I went up into the rooms of the Indians, and sat until late at night, talking to them. The subjects of their conversation were many, relating almost wholly to affairs in Zuñi, and to the many messages which had been sent me by my friends there.

One characteristic of the Indians during the whole evening's conversation was conspicuous, namely, an apparent studied effort on their part to avoid all allusion to the natural features of the scenes by which they had been surrounded during the day, although the conversation relative to the events and personages of the day, though not so excessive, was thoroughly natural.

On the next day but one, remark was made by the two younger Indians, but this was not voluntary, in regard to the ocean. Prof. Morse asked me why they did not speak of what they had seen. I told this to the Indians, on our way up from prayers at the waterside that morning. They were walking at my side. Both

stopped, and turned, and looked at me intently for a moment. "What should one say," said Héluta, "if one should see so much water as this, having always believed that in all the world not so much could be seen, though having known all his life that there was this much and even more? When an eater of food comes into the presence of the Beloved, though he see them not, is there anything to be said? What could we say, when to say anything would only show how little our thoughts, instead of how great?"

Here the subject was dropped; nor was it taken up again until several days later.

For the first time since they arrived here my Zuñi companions discussed at some length today the Ocean. Two of them, Waihusiwa and Héluta, as has been before stated, had never seen the ocean, and as has also been before stated, they found sufficient reason [in] the vastness, wonderfulness and awfulness of the sea for remaining quiet.

For a long time in the morning Pálowahtiwa was missed from our party. His bent form was seen three or four times emerging from among the rocks, and this was all the intimation we had of his whereabouts. After dinner, however, he said to us all, "Come now with me; I will show you where I have been, and what I have seen and found." He led us down the pathway and along the northern edge of the rocks by the shore until he came to a pool. "Now," said he, "you shall see a pair of the star beings of the ocean which are in a size worth consideration." And he took us to a shallow, brackish pool on the top of the rocks, where lay extended and motionless two enormous star fishes, at least eight inches in length from point to point. On examining these star fishes, we found that owing to the heat and the partial freshness of the water, two had died. I took them up carefully and placed them in the salt water again, whereupon Heluta remarked that it was a pity to waste them inasmuch as they were already dead, and asked why they should not be put into a bottle of water and carried to Zuñi, one thus made to serve the purpose, in some small measure, of creating the awe amongst the Zuñi people which had possessed them during the past six days. To this Pálowahtiwa replied, "What would you propose to do in exhibiting these creatures to the priests of Zuñi? Would you propose to take them out for such a purpose?" "Why, certainly," replied Heluta. "My younger brother," said Pálowahtiwa, "you would only have to take out the stopper; the priests would not remain to see the rest; they would follow the indications of their noses." "Why take out the stopper, then," said Heluta; "why not exhibit them through the glass? — one can see through glass." "Yes,"

said the old Chief, "but one would hardly be able to see through the water in which these creatures had been kept for a few months." By all this, without any direct statement of the fact, Heluta was given to understand that the star fish could not be preserved for any length of time in mere water. I then suggested that they might be placed in spirits (burning water), by which they would be preserved any length of time perfectly. Palowahtiwa was quite sure this would do, but the others remained doubtful about it, and abandoned the discussion.

We then went down further toward the rising tide, and the eldest of the three said, "Here let us sit down on this sloping rock, and wait and watch the coming of the waters." The waves were very large, and for some time interested and amused all three of the Indians greatly. Meanwhile I sat carving an image on a pine stick. Presently Heluta questioned me: "you say that one can cross these waters; that while they are not a river, yet they are not endless, but in very truth the embracing waters of the world?" I said, "Yes, that is so." Said he, "In what particular direction is it the shortest, this journey across these waters?" I pointed in the eastward direction. "How many days, were it possible, would a man journey on foot to cross them?" "I do not know," said I. Said he, "As many days as would be required for crossing from this country to Zuñi, and beyond to California—so many, I think." "No," said I, "more, certainly; as many days as would be required for going to and returning from the land of Zuñi." "And yet," said Palowahtiwa, "the great sailing chests which move by means of coal and steam, travel as fast, I am told, as the iron horses and their strings of houses. This being so the journey might be made much sooner, I conceive." "Yes," said I, "it may be made in eight days and eight nights of constant travel, providing the winds and waters do not oppose their progress." "Ah! these Americans!" exclaimed Waihusiwa. "How far is it across these waters in a southeasterly direction, or a southern direction, through their middle?" asked Heluta. "Almost endlessly far," said I, "for a sailing chest of coal and steam might pass southward over the middle of these waters a full month without the appearance of land in any horizon." "Wonderful! wonderful!" said he. "Yet probably," said I, "at the end of that time, perhaps sooner, it may be that something like land would be found, for at the extreme southern end of the world great mountains of ice appear, and the solid islands of ice soar amidst the waters and rear themselves from them; and beyond, over those mountains, and everlasting fields of snow. No one has passed into that region." "Not even the Americans?" asked Waihusiwa. "Not even the Americans," said I. "How is this?" said Palowahtiwa. "Toward the south, say our traditions, lies the

land of everlasting summer and never cooling waters and toward the north the land where the snows lie forever. How is this?" "What your ancients have said is true," said I. "But beyond the land of everlasting summer comes again, as in the north, the region where the snow lies forever, which is the end of the world." "I see," said Palowahtiwa, "neither by heat, nor by danger, nor by any difficulty whatever, can the wanderings of the Americans be restrained; but by cold and snow and ice a divided line is put to them." "Yes," said I, "that is true, and yet again and again have they tried to pass over the ends of the world. For instance, during the last year I spent in Zuñi, an expedition of many Americans was fitted out to penetrate into the great ice country of the north. They sailed away under a Captain of the Army named Greeley. They sailed away in the middle of summer, and at last entered the region of eternal ice and snow which lay upon these waters, and through a wide track broken in them proceeded further than ever before any Americans had gone. But at last the ice closed in upon them, and broke some of their vessels, and cast others high in the air, as it were, so that some of the men died, and those who remained hastened to make houses of the wrecks of their sailing chests, and remained there month after month, consuming their substance until it was all gone. Some of them died of cold, others of starvation. They became like corpse demons in appearance, and like corpse demons at last began to consume one another." Here the attention of the three was absolutely rigid. "Yes, they consumed one another, and not long after I returned, vessel after vessel having sailed to rescue them, they were at last found, those remaining alive, five or seven of them, and were brought to their own country. I saw some of them, and they were fearful to look upon; their flesh was wasted away, and their eyes were sunken deep into their sockets. For this reason it is rare that Americans attempt to pass into the regions beyond; yet they sometimes do attempt it, and will until they either perish or find their way through."<sup>9</sup> "Strange people, strange people, these Americans!" said they. "And beyond those mountains of ice and snow is the home of the beloved Gods," said Palowahtiwa. "True, no doubt," said the others; and Heluta added, "Yes, beyond those mountains of ice and snow are waters like these, and still beyond, no doubt, a great and beautiful world wherein the Gods dwell in peace. Ah, the Gods know full well the passions of the Americans, and they girdle their world about with barriers impassible by the eaters of food" (mortals). "Such indeed are the Americans," remarked one of them. "Though we the Indians live in a poor and dried-up country, though we may love them not, and

treat them despitely, yet they gather around us and come into our country continually, and even strive to get our land from us. Is it possible for any one to say what they want? Where is there a country more beautiful than this we are sitting in now? Is there any water needed here? Without irrigation, on the very tops of the mountains and hills things grow green, and there is water to drink." "Yes, and to spare," said Waihusiwa. "What a shame that so much water should be wasted as now lies before us, contributing neither to the good of man nor the sustenance of the earth." "In that water," said Palowahtiwa, "there are many other creatures, it may be quite as important as men. To their sustenance the water contributes; it is therefore not wasted." "True! I had not thought of that," said Waihusiwa. "Yes, the Americans have all this; they have enough to eat and to spare; though their houses and villages lie scattered over the land as thickly as the pine woods and sage brush in Zuñi land, still they have enough to eat and enough to wear, and what they eat and what they wear are also of the best." "Well, it is not only that," said Heluta, "but the sentiment of home affects them not; the little bits of land they may own, or the house they may have been bred in, are as nothing to them; and, more than all, their thoughts do not seem to dwell contentedly even on their own wives and children, for they wander incessantly, wander through all difficulties and dangers, to seek new places and better things. Why is it they are so unceasingly unsatisfied?" "I think why," said Palowahtiwa; "Above every people they are a people of emulation; above every kind of man or being a people of fierce jealousies. Is not this an explanation?" "Why, even so," exclaimed the other. "Most certainly so," said Palowahtiwa. "And if one American goes one day's journey in the direction of a difficult trail, it is not long ere another American will go two days' journey in the direction of a more difficult one. One American cannot bear that another shall surpass him. Ho! were it possible, no American would be taller than another one. Is it extraordinary then that the Gods begirt their dwelling places with barriers of ice and snow, and fatal, unceasing cold, or that they dwell in the lands above the skies or the regions under the world?"<sup>10</sup>

Our conversation then turned back towards Zuñi. It alluded to those who had been left behind, who would have been much interested in these things, and also to ancient traditions relative to the subjects we had been discussing.

When Palowahtiwa had completed his evening meal, he rose from his chair and stood behind it as if waiting for something. He stood very quietly, eyeing me intently as I ate, but saying nothing. After a while I asked him what disturbed



his thoughts. "You," said he. "Six days I have been here. So many days I have observed you. So far as I can see, you are an American, not a Zuñi. My younger brother, I am waiting for you." "I will follow you shortly," said I. "It is well," said Palowahtiwa. "When you were in Zuñi you established an allegiance with the beloved of Zuñi" (referring to the Gods); "you became their child, as we are their children. Are you not now as then, their relative? A father once or a son is forever a father or son. It occurs to me that you have not kept this in mind, and that you have neglected to sacrifice and pray to the Gods." "When my prayer meal gave out, I ceased to pray as a Zuñi, but according to the father of my ancestors I have not failed to pray." "Nor would I have you fail to pray according to the faith of your ancestors," said Palowahtiwa, "and even so I would not have you fail to pray according to the faith of our ancestors. You will and you must pray and sacrifice thrice daily hereafter. Why deceive yourself? You are still a Zuñi. In the morning you will cast forth to the Gods prayer meal and sacred speeches, at mid-day while the sun rests, and at sunset. This you must do. I shall see to it."

I give these examples of Zuñi conversation as they occurred, because some parts of them may prove not only interesting but of value toward our better understanding of the Zuñis.<sup>11</sup>

#### Manchester-by-the-Sea, August 30, 1886

Night before last I had the pleasure of listening to a conversation by my old brother Palowahtiwa—in some respects the most remarkable I ever heard; certainly the most remarkable I ever listened to from Zuñi lips. We were sitting on the veranda of Casa Ramona after tea, smoking our cigarettes, when one of the young men alluded to something which had occurred when they were at my old home in New York. Palowahtiwa being thus reminded of other occurrences there, said, "What was the matter with your father, Thomasy Cushie, and the somebody else old man who came there one day and talked with him? It was this way: This somebody also was a man shorter than your father, with gray hair, a little grown long at the sides and back of the head, but thin on the top. His forehead was narrow, the temples being hollow; his nose was a little like a bent finger in outline, and his beard, which was full and white, bended two ways, outward from his chin, inward, as well as from side to side. Well, he came there one day, when your father was sitting under the trees in front of the house, and this man

of the crooked beard leaned himself against the fence, with his elbows thrown back to support him, and began to talk. He seemed an excessive talker. Who was he, anyway?"

I told him that I suspected it was my uncle. "Where was his house?" I asked. "Why, you know," replied the old man, "where the hatchet-maker's working house is. Well, it is just beyond there in a slanting direction, back from the wagon road." "Why, it was my uncle then," said I, in a more assured tone. "Is it possible?" said Palowahtiwa. "Yes, I think you did tell me it was your uncle when I was with you in the sunrise land before, but it is very strange." "Why?" said I. "For this reason," said he: "After this your uncle had talked rapidly for some time, your father leaned his elbow on the arm of his chair, and placed the side of his face in his hand, and only nodded his head occasionally, or with a slightly bitter expression shortened his neck and his shoulders."

The old man illustrated the actions of both most perfectly, by his positions and movements during the narration; so perfectly indeed that, knowing those he referred to so well as I do, I had no difficulty in inferring almost precisely the nature of their conversation.

He continued: "This was not all. By and by your father began to grow restive, and got up and chopped the air with his hand, and then sat down; and occasionally he spoke quite sharply, and these young men thought they must be quarrelling about some serious matter. 'I wonder what the trouble is,' said one of them; and the other suggested that it might (be) something relative to their crops, possibly the beasts of one had broken into the fields of the other, and eaten up much corn, and they found it hard to agree on the amount of damage done." "No," said I, "it is not that. These Americans have strong corrals all round their fields of growing crops. It is not that." "Before long we saw that things were getting to a bad pass. They looked at one another as they talked, they gesticulated with their hands, and broke up one another's conversation frequently, and looked up and down, and from side to side, as though not regarding one another, like some cocks about to fight; and presently this war of words reached a crisis, for your father strode forward, and shouted out three times that exclamation which angry Americans use, with a little something to the end of it, and then strode away. Now, for two days these two, your father and your crooked-bearded uncle, thus contended; always beginning gently, and ending in a regular sputter of words. We were not satisfied; we wished to know what was the matter. Your uncle seemed to be a kindly sort of

man; your father seemed to be the one who got the maddest; for your uncle said to us one day, as nearly as we could guess, 'You are the friends and brothers of our child; come and be my guest sometime. I am to cut my wheat before long. Would you not like to come and see the work go on in my fields? It may be new to you.' It thus happened that we all went down to this farm one day thereafter. So I said to these two young men, 'It could not have been the crops. I have looked over all the fields as I came along, no grass is trampled, no straws are bent, no corn stalks are broken; and the same may be said of the fields on the farm of your younger brother's father, and his elder brother, younger than the other. No, it was not of such things that they were talking.' Now, what was it, younger brother?" said Palowahtiwa, turning to me. "Was it anything in the relation of the two families which had to be regulated by these their heads?" "No, I think not," said I. "I think that these conversations that you refer to were a religious discussion." The old man did not understand me. He sat trying to do so for some time, and then asked me to explain it again. I did so, not once, but two or three times, as picturesquely and in as illustrative a manner as I could. I thus at least succeeded in convincing Palowahtiwa that it really could have been a discussion arising from differences of religious opinion. When he had comprehended this thoroughly, he leaned himself back in his chair, and bowed his head and began to speak to me in a very earnest and low tone. "Light now breaks upon us," said he. "My eyes are no longer in the dark. I now understand many things about these Americans which have much puzzled me heretofore. When we came to this country before, I often noticed, for example, as we rode through small towns, that there were many ample houses of worship in them, and I said to myself, 'Any one of these sacred houses would hold all the people in the town. Why then have so many? It cannot be that in such small villages there should be many sacred esoteric societies; yet it must be so.' All the while I could not be satisfied. Now I am. It is very strange and very lamentable that your people, my younger brother, should be as they are in matters of religion. It seems that they are such a great people, so wonderfully well off, so equal to the gods themselves, in the affairs of social life, why should they not also be wise and supreme in religion and their relation to the Gods? I think it is because they are so great in other respects that they are wrong in this. It was said by our ancients that in nearly all, save in this, Americans, except when they strive to excel one another, join their strength together; whereas in this which requires the strength of all men, they divide themselves. Instead of uniting their hearts, they sever them."

## Manchester-by-the-Sea, Sept. 22, 1886

I incorporate in this account of Zuñi conversations notes made by Miss Magill and Mr. Tenny of the remarks made by Palowahtiwa on the occasion of the third of the religious exercises at Mrs. Hemenway's home, held on the afternoon of Sunday, September 19th.<sup>12</sup>

Mr. Tenney selected for the readings of the day the story in Matthew of the young man who came to Christ, asking what he should do to be saved, and a series of questions and answers from the Catechism was also read by Mrs. Hemenway's request.

A part of these I translated to the Zuñis, inasmuch as they related to the conduct of life. I also translated the verses in Matthew, preceding this translation by a short story of Christ, as follows:

"My brothers, younger and elder, this ancient record says that there was once a being, the God Himself, as it were, who, that he might teach men the better ways of living, assumed the form of a man, the flesh of a man, and the ways of a man. He, one of the Beloved, for the sake of the children of the world, was content to submit to all manner of humiliation and the suffering consequent to poverty and lowest estate of a man, and he went about on foot throughout the cities of the land, teaching and was reviled, unloved, cast away, and even made captive and killed by men whom he had come to benefit."

"No other," said Palowahtiwa, "than the story of Poshaiank'ya, the father of our sacred societies of worship."<sup>13</sup>

"The story is much the same," said I; "it may be some part of the same, for even as Poshaiank'ya was despised and cast away as he journeyed from one city of men to another, even as he was poor as the poorest, so indeed was this Beloved One, a man only in his disguise."

"Is it possible that this is so," said the two younger men, "that the Americans also have this ancient tradition?"

"It is of course possible, it is only to be expected," said Palowahtiwa, "for all ancient religion, unbroken by the interpolation of modern guesses, having one source, must be in effect at least the same."

"Then," said I, "this Beloved One in his wanderings, was once met by a young man who said, 'Good Master and Father, what shall I do to be rendered safe, and to be considered most good?' And he who was like your Poshaiank'ya replied, 'Nay, do not say that I am good, for only the Beloved Holder of the trails of our

lives, the Father, only is he good. If you would be what you ask, keep the commandments, be a man who slays not a brother man, who deprives not a brother man of the faithfulness of a wife or daughter, by the thieving of the happiness of the flesh, who speaks not in any kind of manner that happens, thus with indifference speaking false things of a neighbor, who prefers above others and honors and loves his father and mother, who shall not of the precious possessions or any properties whatsoever of another add unto his own, for this is stealing, and thou shalt not steal.' Thus he instructed him in reply, and the youth said, 'All these commandments, even from the time of my coming forth, have I regarded.' 'Yes,' said the Beloved One, 'and if you would be still more perfect, then wish to be so as earnestly and with such strong anxiety that you will sell and give away all of your earthly possessions.' But the young man bowed his head and thought, and said to himself, 'This is unpleasant,' and went away thinking such.

"Then at another time, one of those whom this Beloved One had taught, and who believed in him, when he was asked, speaking of his Master, opened his mouth, ('and Peter opened his mouth, and said') and looking upon the people earnestly, said, 'It has been said by the Beloved, I have made all people of one blood and flesh, and those who seek me earnestly by means of any kind of worship whatsoever, provided it be straight from the heart, they are acceptable.'"

"This is true, most true," said Palowahtiwa, "and this ancient speech (pointing to the Bible) is not a bad commandment in the light of which to walk the way of life. Why should we not therefore all equally desire it?"

After the regular exercises were finished, Mr. Tenney very briefly gave a history of the condition of our forefathers in the dark ages, of their predatory expeditions in ships or boats, of their debased unsettled condition, the sending to them from the south of priests teaching these things about the light of life, of the killing of these priests and missionaries by them, and of the coming of yet more, so that by and by they were brought into the light, "the light of this book," added Mr. Tenney, taking up the Bible, "which is like the sun, full of light for the ways of life, and it was so considered after those ages, so that when our people came here they brought it with them and walked by its light, and are a great and prosperous people, having so done. Now as was the case with our ancestors, so with you my children; we wish you to walk by the light of this book, all of us, and that is what we labor for, and what we pray for, day after day, and it is why we invite you to join in these our sacred observances."

These remarks I translated, amplifying them, and adapting them to my hear-

ers. I said, among other things, that the father had said to them that many ages of men ago, as many as thirty-five or forty generations ago, the fathers of the Americans did not live here, as they would remember I had told them the night before, when I had given them the story of Columbus, that they did not live then even where they lived and as they lived when they came across these waters to this world of the Indian peoples, but they lived beyond there, most of them, in a country called Scandinaviakwe, they being called the men of the north; that their worship, their medicines of life, their thoughts and wishes, were all for war, and for their predominance over the cities and tribes of men, and that in their ships and boats, of which they had many, both large as well as light, they would sail from their country to the countries round about, ascending a river, for example, where a people of ancient sort lived, living more peaceful and wise life, building houses of worship, and planting great fields of grain, and when the grain was ripe, and stores of much property had been gathered together in these cities of theirs, these ancestors of ours, coming up the river in their boats, like eagles seeking small creatures of prey, at sunset, or in the early morning would pounce upon these cities, slaying the people in them, stealing their goods and stores of food, and burning their houses; that the spirit of war, the medicine of war alone then was their commandment, and that in war they excelled above other men; that as time went on it came to be understood in the southern lands, where people were wiser and walked in the light of the commandments we here read, that these our ancestors were such a people, incomplete and given to wrong directions. Therefore there were sent to them many priests and teachers, who said, "You are wrong, and we come to teach you, that ye may live in the light of these our better commandments." And these our ancestors of the north rose up in reply, and said, "Ah, ha! this is what you think, that we are wrong, and you are right?" And they turned on them and killed them, every one. And when more teachers and priests were sent to them, these also they killed, saying, "This is our sacrament, and we are able to maintain it, verily!" But as time went on, in a most difficult way they were brought to understand their crooked ways, and then they adopted the teachings we have read, and in part the commandments, by the light of which they should walk. And this ancient book of our primitive worship, this they conceived to be the source of the light of life, even as the sun is the source of the light of the world; and in the light of these commandments and this book they walked; and they prospered above other men, even so far that they became a great people in Englekwe [England], and finally their children were so many

that discords arose even in regard to these teachings which they had adopted, as I had told them the other night, and part of their children rose up, as it were, in rebellion against their lords, and came to these shores, bearing as the light of their lives this book. And here also they became a great people, and they are now called the Americans. Their strength is as great as the strength of any people in the world, and their prosperity even greater than that of others, and they claim that this light whereby they have walked has led them into this state of things, and even made them better than other men. So says our father, and he says, "My children, therefore we work and pray, and invite you to join us, that you may also walk in the light of this same ancient teaching, and that you may have all the advantages, prosperity and privileges which," as he says, "through this have come to the Americans."

"Indeed," replied Palowahtiwa, "it may be true." And he said no more; but being impressed, probably, with the idea that this was an effort toward leading him to adopt our religious opinions to the exclusion of his own, he decided to hold his peace.

I translated the brief remark that Palowahtiwa had made, and then, sitting down near to them began to tell them, somewhat more fully and picturesquely, of the Scandinavians. I showed them the ring on my finger, and said, "From these people am I directly descended, for one of them named Halahulkono (Malshulcius) was a great leader and warrior among these men of the north, who, with his nephew, who afterward became the great lord of the cities they conquered, went on these predatory expeditions in a great boat rowed by many men, on one end of which was pictured a raven, which was their dark symbol of craft, and on the other a great yellow eagle, which was their burning symbol of war. And he and his children carried a shield on which was a white eagle, for in their habits of life and religion truly they emulated the eagle. So you see to this day, descended from father to son, after it became the main symbol of my clan or Cushikwe, this eagle, which was held as the ancient spirit of war and shield of my grandfathers, has been handed down to me at this late day, and is engraved on my ring so that it is today the totem which I stamp on my papers as one of this clan."

This relation, which, on account of the objectivities I associated with it, as well as of its personal associations with me, seemed to appeal more directly to Palowahtiwa and the others; so much so that he decided to make a reply. This reply, with the proper additions and emendations, I incorporate in the form of notes made at the time by Miss Magill and Mr. Tenney.

“Thus it seems it was with your people in the beginning. Indeed thus it was with our ancients, and not unlikely with the ancients of all peoples. Though your ancients and ours came into the light by different trails, yet after all by the same way they came to it. As nearly as we can know by what has been untied to use from generation to generation on the string of our ancient traditions, it was this way in the beginning: At first we were all in the darkness, just as the seed corn in the ground is in the darkness when putting forth young sprouts. Not seeing the daylight, they cannot follow it straight, but they take crooked ways toward it until they reach it. Thus through crooked ways having to come to the light and learned the straight way, they grow up straight until the blossoms cover their being and they produce their harvest. So it is with men. In the beginning the ancients saw not at once the light, but came toward it in crooked ways, even as the corn sprouts; for if one would see a light on the horizon, beyond a hill towards which he is journeying, he must wait until he has reached the hill and climbed it before he can see it. So with a man in the conduct of life. He cannot find wisdom until he has gone far upward and onward in his journey. Thus it happened with the grandfathers of our ancients, as of yours. The Gods had given to the grandfathers of our ancients in the beginning, plumes, sacred medicines, and the seeds of things precious, wrapped in strings of beads with meaning; but they cared not for these things, nor cared they for such other, as they would have cared for each other had they for these things cared. So they thought only of strife; they were imbued only with the spirit of war. Instead of devising to plant and work their fields that corn might grow and many men might be fed, they spent their time in devising how to lay low others and cornfields of others, that many men might be weakened and die through hunger as well as strife, and they alone be left to prevail. Whatever stood in their way, forthwith they hesitated not to pull it down or cast it aside violently. Forsooth this is the reason why they were nearly all finished up, these our ancients, not long after they came to Hanthlipink’ya.<sup>14</sup> You know the story, younger brother, of how there they began to get into trouble, into a trouble which nearly resulted in the utter wiping out of these our ancients, and had not the Beloved Two who fell to win the daylight of life for men, fallen for the redemption of these our ancients at that time, they would indeed all have perished; for, see, like your ancients, they thought of nothing but strife. Could you have been there in those dark days with either your ancients or our ancients, and could you have heard what was said down beyond in the heart of any one of them, you would have heard the heart of this any one of them saying, ‘Be a



man! Be a man in such a way as the mountain lion is a mountain lion, and not in any other way whatsoever.' This was their thought. So when they had journeyed a little further they came to a city of men who it seems were there before them, having preceded them on the journey towards light; and this city as you know was Heshotyalla.<sup>15</sup> Now, these our ancients seeing it saw not that the people there were better than themselves, and wiser, having great fields of corn and irrigating canals, so that they never hungered nor lacked for anything, and had time to think of things sacred, and were in all this surely better than our ancients, who often encountered much misery in consequence of their folly and love of warfare. So these our ancients foolishly said only, 'See this city, it and its people! They are in our way. Let us cast them out of our way.' And they made war upon these people, and these people rose up and opposed them for they were a wonderful people, and possessed strange arts, and the favor and protection of their Gods, as you know from the story of the Goddess who carried her heart in her rattle, as it were, and led the forces of these people who opposed our ancients."

(I did not translate this reference to the Goddess, because it was designed only to remind me of the tradition in its entirety from which Palowahtiwa was drawing illustrations.)

"Now, had it not been for these Beloved Two, their counsel and guidance, by the advice of the Sun Father, our people would have been utterly annihilated; but through their counsel and guidance, these our ancients and the people whom they opposed, through much strife made an end of strife, becoming much over-satisfied thereof, and they clasped hands, and our ancients showed to the people of that city their sacred things, their medicines and the seeds of precious things; and the people of that city showed to our ancients their sacred medicines and precious things, and taught them their manners of life, and they were at peace with one another, and thereby came into the daylight.

"Even as it is darkest just before morning, so you see it was darkest to these our ancients just before the dawning of light.

"You say that priests came to teach your ancients, and that these your ancients killed them; and there came still more of them, and your ancients killed them Well, if they had come to our ancients at that time, when they were in Hanthlipink'ya, or before, they would have killed them too, for we were not ready then for the light, any more than were your ancients when the priests first came to them, telling them of it. Now, had those priests not come to your ancients, or the ancients of any people in the dark, nevertheless they would have found the

daylight of life, just as the corn sprouting under the ground, by much growing in crooked ways, finds the daylight, and then grows straight. So even as a foolish boy, who spends his time in the pelting of dogs and such idle play, thinking of no better things, comes nevertheless in good time to his reason, so your ancients would have found the daylight of life, as the boy comes to his reason, even without priests to show them the way.

“Now when our ancients and these wise people whom they warred with had clasped hands, these our ancients began to shorten their prayers for war, and to lengthen them for the promotion of peace and the growing of corn. Behold, they then became the greatest people of their world, because they were walking in the daylight, even as you say your people came to walk in the daylight, and prospered accordingly.

“In all councils of worshippers amongst those who look on, there are some young ones who are foolish. Are there not among you such unwise young ones, who might say, for example, that all this sacred writing of yours” (pointing to the great Bible which lay upon the table) “is but paper, common paper which any one might roll into cigarettes and smoke away? Even so there are some among us who say of our ancient sacred plumes and medicines that they are nothing but old turkey feathers and eagle plumes, crumpled and broken, old cotton strings, musty and worn out, and broken bits of beads and shell stuck in a lump of clay and pitch mixed with cornmeal. But as the wise among you would say to these foolish ones of yours, ‘This ancient writing is nothing but paper, it is true, yet wrapped up in its heart, as it were, is something else, with a wise and precious meaning.’ So also our wise ones would say to these foolish ones, ‘Ye see not into the hearts of these things. True it is that these are only musty old plumes, broken beads and cornmeal and pitch tied up with rotten cords; yet when the Gods gave these medicines and seeds of precious things to our ancients, they wrapped up in them the prayers and powers which are still there, that we might through them supplicate for all the surrounding cities of men, from the sunrise even unto the sunset, the seeds of earth for food, the water of life for drink. So verily, the meaning and potentiality that are wrapped up in these old plumes are such that they are too precious to be bought by the largest herd of horses in the world.’”<sup>16</sup>

Palowahtiwa watched with evident interest the interpretation of these speeches of his, and when I had finished them was about to go on, when I said to him, “Let us make this sufficient, inasmuch as I am not strong or well today, and I am weary.”

He replied, "Be it so, younger brother. It is nevertheless true that I have much to tell you concerning the life of Poshaiank'ya, he who was like this Beloved One of whom you speak, or perhaps it would seem the same."

I told him he should tell this story, and those who had listened to him this time were so pleased that they would be only the more glad to listen to him again on another occasion of the mother's worship.

After we had returned to Casa Ramona, and the evening meal was over, Palowahtiwa, who had been throughout the whole sitting somewhat thoughtful and silent, began to tell me more about Poshaiank'ya. I had been meanwhile speaking to others at the table, regarding not only the utter futility, but even the harmfulness of attempting during the critical period of transition from a state of culture like that of Zuñi to our own civilization, the changing of religious beliefs and conceptions. Palowahtiwa had asked me what it was that I had been speaking so warmly about, and I told him simply and frankly. It therefore occurred to him that the others at the table would like to hear this story of their ancient Hero God and Teacher, Poshaiank'ya. So, as I have said before, he began to tell me a part of this story at the table; but as the others were speaking together, so that it disturbed my attention, I requested him to follow me into the study, where I would listen closely to all he had to say, after which I promised him I would return to the dining-room and translate the relation. He joined me most reluctantly, and the result of the move was, alas! that he greatly shortened his story; yet, such as it was, I relate it here:

"In ancient times," said Palowahtiwa, "Poshaiank'ya, much the same as your ancient Beloved One, appeared among men, poor, and clad only in a tattered garment, which was slung over his shoulder, and descending, left a part of his body bare, and which was tied about his loins with an old string, as was the custom of the Koyemashi or garden priest clowns of the Dance or Sacred Drama. On foot he journeyed from one country to another, from one city of men to another, teaching them what they had not known before, the uses of the sacred medicines which they had received from the Gods in the time of creation, and the worship connected with the sacrificial plumes. Wherever he appeared he was reviled, he was persecuted by the priests of our sacred societies, such as they were, for they did not recognize in him the Master and Father of all sacred societies; and it is to be believed that as they cherished him not he disappeared from amongst them, leaving however, his precious teachings, which too late they learned the value of. Now, it is that Poshaiank'ya appeared upon the earth, issuing from the four super-

imposed wounds of the Earth Mother, long before mankind came forth; and he came eastward, it is said, over the ways which should afterward be followed by his children—men.

“There is a round tower, strongly and beautifully built, standing in a lonely glen of the Zuñi mountains, north and east from Taya or El Pueblo de Las Nutrias. On the slope of the northwestern plateau of the Eastern World apex (Mount San Mateo or Mount Taylor) there stands another of these towers, even larger and more perfect, also in a lonely place among the mountains. And west of Cotchitema, above the valley of the Rio Grande, far up among the solitary mesas, stands yet another tower, of still larger proportions, round and surrounded by other buildings; and before the main entrance of these buildings, guarding their portals, as it were, are mammoth figures in stone, side by side, of the guardian warriors of Poshaiank’ya, the mountain lions of the north and west. Long, long ago these temples were sacred to Poshaiank’ya, marking the places where he rested and contemplated for the good of men, long before they were born, as he journeyed from the West, to the eastward sacred temples of Poshaiank’ya (and remain indeed to this day as such), and hence also their wondrous perfection of proportions and their marvellous endurance. Who knows how long at each one of these places the Beloved One rested? From the last he took his departure, and went to the most sacred city in the world, in the estimation of our ancients,—Shipapulima, or the City by the Sacred Mists Surrounded.<sup>17</sup>

“Now in the Sacred City of Shupapulima remained Poshaiank’ya. It was there that he gave his commandments to the ancient prey beings of the world—his warriors we call them now—and divided the earth between them, so that one, the mountain lion, could be guardian of the North, or the land of everlasting winter and fierce winds; another the black bear, the guardian of the West, or land of night; another the badger, the guardian of the South, or the land of everlasting summer, midway between day and night; another the great gray wolf, the guardian of the East, or the land of day; and another the great speckled eagle, the guardian of the many-colored sky; and another the little mole, the guardian of the black lower regions.

“Here it was that he formed his commandments; and here a great city and great temples were built up around him, and in time many disciples were gathered about him, and from far and near came the Master Priests of the sacred societies to gain instruction from him. It is said that once he sent forth a summons to those who were thus in relation to him, and he gathered together all the priests

of our ancient world at his Sacred City by the Mists Surrounded. And they came into his temple there, and were wonder stricken with its majesty and beauty. In the northern portion of his sacred room stood an altar, many-colored, carved of wood, called the Place of Taboo, and guarded on either side in front, not by the little figures which we place today beside our altars made in semblance of that altar, but the actual living warrior priests of Poshaiank'ya, the two mountain lions. And on the western side stood yet another altar, similar to though differing from the other; and before it on either side were the actual living warrior priests, the bears of Poshaiank'ya. And on the southern side stood yet another, similar to yet differing from the others, and before it were its proper guardians themselves, not figures of them. And so also at the east; and so also above, was suspended the sacred tablet altar, and perched thereon were the eagle guardians of the upper regions. Below also was the altar of the lower regions. And the sacred fire burned unceasingly, and the music of wise incantations and the sound of precious prayers, they might have been heard always.

“Here then Poshaiank'ya gathered his disciples together, and he said to them, ‘Observe well the things by which you are surrounded, in order that you may hand the like down to your children among men in the surrounding cities of the world. Whomsoever of you would be a priest of sacred things and medicines, whomsoever of you would be a member of a sacred society for the keeping of commandments and sacred medicines, let him be duly initiated, and let him breathe from you, my children, the breath which I and my Brothers Beloved breathe upon you, that he may verily say, Of the breath of the Beloved I breathed; of the life of the Beloved do I therefore partake. And let him lead a wise and deliberate life, speaking from the left hand things only true, not wavering things or the things which come first uppermost from the heart, whether that heart be swift with passion or subdued with desire. Each man among my children, the priests of my societies of worship, or the initiates in them, must reflect that he partakes, so far as he will merit it by his behavior, of our sacred breath and power. Reflecting on this surely he will lead a deliberate and perfect life, loving his children among all men, and using kindness toward them. If any men among these my children would do these things, let him feel that in his left hand—which is on the left side, in which side the heart is planted—he verily carries his own heart. And if in a moment of anger he would strike his brother or one of his children among men, let him strike with his left hand, reflecting that as he carries his heart in this hand, his own heart will be bruised by the blow he gives another. Whoever would

follow the deliberate, wise, and good life of priest, shall his prayers and incantations for the good of men, that daylight may be granted unto them, and great age, remain unanswered? Surely no, for he who leads a perfect and acceptable life, perfects the imperfect lives of others; and not only can he ask, when another is laid low in sickness, that his daylight may be extended unto him longer, and that he may grow yet more aged despite of his sickness, but he may also ask for the light of life, which ends not with this life.’”

Here Palowahtiwa quoted from some of the ancient rituals of the priesthood of Zuñi, giving in more exact words these traditional teachings of Poshaiank’ya. I regret exceedingly that I could not induce him to repeat these things, in order that I could record them more faithfully; and also that I could not induce him to continue to relate to me much more of the abundant lore of his people referring to Poshaiank’ya. He merely urged this as his apology for not acceding to my wishes: “These are things in themselves perfect, and I see that you wish to perpetuate them in enduring writing. They should therefore be given with perfection. I cannot thus give them.”

Referring to a reverie which I had had, a vision during the year last past, I said to Palowahtiwa, “The most wonderful and incomprehensible thing I heard at the home of my friend on the island west of here, last summer. I would tell it to you if I thought you would understand it, but you will not, and it is better that I should not tell it to you.”<sup>18</sup>

After smoking a long time in silence, he said to me, “Why should it not be understood that a brother should be direct with his brother, and why should this his brother not comprehend him in a straight and perfect way, even so that that foolish act, our hiding of important facts from one another, should not be done?”

“I merely thought, my brother,” said I to him, “that it would be quite impossible for you to comprehend, much more for you to believe, such an unheard of thing as I was tempted to relate to you.”

The old man simply repeated, with great gravity, the statement with which he had begun.

“Very well,” said I. “As many days ago as this (a year ago) I had been very ill, as you know, and I was sitting one day in front of my house, red all around me, for the trees were turning red and yellow with cold, and the sun was red in the smoky western sky; and it was said to me by some one, whom I seemed to see in the form of an ordinary man, as plainly and circumstantially as this it was said to me, ‘You are not what you seem to be; you are not an American, you your-

self, but you are an Indian, truly an Indian, disguised as it were in the flesh of an American. Do you not mind how you were born before your time, not being perfected in your mother's womb?<sup>19</sup> You are the soul of an Indian of olden times, you yourself, in the flesh of an American. Therefore as a child you led the life of an Indian. Therefore you had eyes to see, as a dog on a trail has nostrils to smell, the places of your true people; and you sought out where others could not find them, their remains, and gathered them together, and placed them in your little room, and slept surrounded by them. Therefore you went where others of your race had not gone, and lived the life of the Indian in Zuñi. Therefore you quickly learned to understand what others would not or could not understand, his thought and his language. Therefore you foresaw, years before, the finding of the shrine of Heluta and Metsailema in the caves of Arizona where others had not found them, in a land which you knew of by sight and hearing. Was not this because you were to become one of the initiates, understanding the things pertaining to these shrines? I say to you, you are not an American, though you think yourself one, believe yourself one, and would laugh at this strange fancy, not understanding it; but sometime you will understand it well, when you shall have come to understand better the Zuñi language and the Zuñi life, and all will be well, that it may be well.'

"This, my brother, did I hear, this strange and most incomprehensible speech. You laugh: I knew you would."

The old man had been leaning forward toward me as I recited this to him, and smiling, and he continued to smile and laugh in a low, perfectly satisfied sort of way. Then for the third time he repeated the grotesque sentence I have given above. "Certainly," said he, "you don't understand it; and it was because you didn't understand it you thought I could not. You don't understand and you don't believe what I perfectly understand and fully believe of what you yourself have told me. Was this a daylight being who spoke to you, did it seem such?"

"I don't know, my brother," said I. "It may have been a dream, it may have been a reverie. It was as if it were a man speaking to me according to the strange beliefs of other parts of the world than that which I live in."

"You don't understand it, I repeat," said he. "How long had it been since you had sacrificed any plumes, or properly and perfectly said the rituals relating to that part of our worship with which you were connected? You need not answer, for I know. You had not sacrificed one solitary plume after leaving Zuñi, and you had not prayed with any regularity whatsoever nor had you ever prayed with

any due sincerity, according to the forms of worship which you had deliberately adopted. Now this is why you seemed to hear the things which were told to you; and it was fortunate on the whole that one of the masters of Life and the World should deem it worth his while to instruct you with such a reverie, rather than let you be utterly cut off while a young man. You will get well. If this thing, and as I suspect other things like it, had not happened, we might conclude that you would not get well. It seems now that you did not understand your fathers, the Priests of the Knife Order in Zuñi, when they performed over you the ceremonies which made you one of their children, a member of the Priesthood of the Bow. Do you remember the ritual and the incantation which they pronounced over you, saying that had you not been one, even before you were born, chosen to become of the number of the children of their Gods and your Gods, you would not have become so; saying that in the times most ancient you were of the membership of their family, like to them, because you were to become like them. This ceremonial of your fathers, the laying on of all the sacred black paint, the laying on of the yellow paint, the distributing over your person of the sacred apparel and the symbolic down of the eagle, this was only that you might be brought to the surface and see yourself in your relation with these the fathers, which you had not been aware of before, and which it seems, forsooth, you did not become aware of then. Don't you remember how they laid these things upon you, repeating the prayers and incantations, which should have informed you of as much as I have told you? And when you went not from the dance, don't you remember how they took these things off from you, waving them up and down your person, that you might, knowing yourself to be, however humble, of the company of the Gods, resume your relations with man as man? With those prayers and incantations they placed in your hands the weapons of your order, symbolic of its functions and of your relations to those among the Beloved who have charge of those functions, placing across your breast the sacred badge of your membership, last of all crowning you and your being with the precious and sacred symbol, the headplume, as it were, of avowal before men of this your relationship, which had existed, because it would become so, in daylight, from the times when all things were new.

“Do you understand any better now the thing which you thought I could not understand?”

During this appeal to me, Palowahtiwa repeated long paragraphs of the rituals and incantations to which he referred, giving to them by the context, here so



imperfectly written down, a newer and deeper meaning than I had ever attached to them before. Some excuse exists for this in the fact that they are couched in archaic forms of expression, which even now are understood only to a limited degree by me, notwithstanding the fact that I have been initiated.

Palowahtiwa continued: "I will now relate to you an incident which occurred long, long ago in my own life: My uncles and fathers and older relatives, mostly all of them, had gone to Taya and Heshota-tsina (Los Ojos de los Pescados), to plant, it being spring time. I was very, very sick, therefore did not go with them. I was a comparatively young man then, and had not long since married the wife, who is your sister older,<sup>20</sup> and we were living in a large room, part of the house of my father below, where she your sister was nursing and caring for me, as I lay there day after day, by the side of the fireplace; and my uncle, the father of Mana, whom you know, he brought wood for us from time to time. And I became worse and worse, day after day, and it was said that it was finally not well with me, and the message was sent to my elder relatives and others at Taya and Heshota-tsina. And before they had time to come, I was dying, it seems, for I became but bones with skin over them, and weak of breath, and very slow of heart. And thus I was lying one day in the afternoon, and the light was coming in through the window at the end of the room but I did not see it. In daylight it grew dark, and it was bad for me but a very short time, for I had forgotten all things. Then I was again, and the light was coming through the window at the end of the room, brighter than before, so that all things were clear to me, very clear; and as I looked round the room, wondering that everything was so much better than it had been for so long, but still lying there by the side of the fireplace, yet feeling that I need no longer lie there, I saw a broad-shouldered, good-sized man coming towards me, he having opened and passed through the door. I did not know him. He was dressed in the ancient costume of my people, with red buckskin leggings, good and strong, red buckskin breaches, tight and smooth, with buttons of brass upon them—for you will remember that our people at one time had no silver, and then they used brass for their buttons and bracelets and earrings—and he wore the older coat of my people, woven by their own hands, and not the thin cloth of the Americans, and round his head, stiff, like that which you have on your wrist," said Palowahtiwa, stretching out his finger and touching my cuff, "and white, was his head-band, which was the kind of head-band worn by our people when the cloth of the foreigners was most expensive and rare. His hair was fine and

heavy, and as black as the hair of a youth, though he was a somewhat old man. His head-band was fine and large, and most properly arranged. He looked like a friend of mine and a relative, but I did not know him. He came toward me, holding in one hand, which was extended towards the door, a riata, as though he had a horse behind him. Then he stood over me, and looked down at me and smiled, not greeting me in the least, except by this word, 'Kōshi'" (which may be translated "Is everything arranged" or, "Is it all in readiness?"). "Then he said to me, 'Would you like to go with me?' and I looked at him, and said, 'Why not? But I do not know you,' said I, looking at him, as though against a strong light, with my hand shading my eyes. 'I seem to know you, yet I do not.'

"'My child,' said he, smiling, 'it is not surprising that you do not know me. I am your grand-grand-uncle, and went away from Zuñi a long, long time ago, long enough surely before you were in the womb of your mother.' 'Ah, yes!' said I.

"'Now, are you ready to go with me?'

"'Yes,' said I.

"'It is well,' said he. 'In order that this journey, which is long, might not seem strange to you, I have brought a couple of fine horses, such as my people and I see your people use constantly nowadays. Everything is in readiness for you. The horse is saddled and bridled, and is a good horse. Come, let us go.' And he turned to gather up the riata, and lead us towards the door, and I was rising from my bed easily enough, when there appeared, not coming through the wall opposite, but already through the wall, the form of a little old man, dressed in the most ancient costume of my people. White was his apparel, with leggings of knotted cotton, soft and in figures, fringed down the front of the leg, with embroidered breech-clout, and embroidered wide-sleeved cotton coat; and his hair was as white as snow, and very long, falling down either side of his head and in front, and done up in a strange old-fashioned knot behind. His face was surely pleasant, but very old, and he was short, not as high as the lower part of the window. Though so very old, he walked with an easy and majestic tread, noiselessly, more so than the wind. He came toward my uncle, reached out his hand and laid it on my uncle's sleeve, and said to him, 'What are you doing here my son?'

"'I have come for this, our child,' replied my uncle.

"'Why!' said the old man, looking at him not so sharply, but in a commanding way, 'he is not ready yet. You must not take him away. Go back; go back, my son!' said he. 'For many years he will not be ready.'

“‘But he is ready,’ said my uncle, dropping his head on his breast, and beginning to gather up the riata.

“‘We are not ready, if he be,’ said the old man. ‘Leave him and go.’

“My uncle turned, not sadly, but thoughtfully, and disappeared through the door.

“Then the old man turned towards me, and came to where I was lying, looking at me. ‘My son,’ said he, ‘it is not time for you to go yet. We do not wish it. One sometimes learns wisdom through great illness. Therefore you have been ill. You have been so ill that it has been said, “He will go.” But you will not go—no. For many a long year you will not go; you will become old, even as I am before you. Your hair will be white, your face will be wrinkled, and you will grow shorter as you have heretofore grown taller year after year. Were you now to go, one fewer would be those in the world where so many once dwelt who give us those attentions which we cherish, who sacrifice plumes of worship to us, and show that our children among men have not forgotten us. These things are most acceptable to us; we would not miss them from one individual, so few are they who are left among our priests, whose time is not measured out, and who has not properly and in a finished manner reached the dividing line of the light of his life. Live my child: live many a long year, until you, even as I am, are old. A few days, and your flesh will begin to gather upon your bones, and as you were so you will become again. And although it may not be pleasant to you to think that you must endure illness and suffering, and many unhappinesses, yet know it is best that this should be so. Live! Become well! and when the time has come for you to go, it will be said, “Yes,” and we will come for you. Farewell. Be it even as I have said.’ And the little old man turned, and I lost sight of him, and everything grew dark again, and in a moment I heard the people crying, crying, crying about me, and they began chafing my hands and feet, for they thought I had even died.”

Manchester-by-the-Sea, Mass

October 12, 1886

My people,

How are ye all? Is there anything of any kind by which any one causes you grievance? Is not there any cause for complaint? And furthermore, if there be any kind of cause for complaint, ye shall tell us, for a great length of days I have not been with you. Therefore I ask.

And, furthermore, how are the people of the Pictured Town (Pescado)? What news there? And yet again, how are the people of the Planting Town (Nutria)? And what is the news as well?

And the people of the Hot Springs (Ojo Caliente)? How are ye all? What is the news here? Likewise and at the place of Shrub Spring, as also at the place of the Hard Bottom Spring—how are ye all there? Concerning all these I question you.

In other respects how are ye all? Are you all living happily? Come now, in this respect how are you all? And moreover, concerning these things I also in this particular question you.

How has it happened? And moreover has the proclamation of the coming of the Sacred Dance been on the full moon of today? If before the moon was full the proclamation of the Sacred Dance was made, then tell us of this. Therefore we will remain encamped here, understanding this thing well. Therefore we will not have dubious memory of it.

Now thus much concerning whatsoever I question you. What should I say in addition (concerning these things)?

Of course our friend Black Mustache will tell you straight (what I say), and by means of this will ask these questions straight.<sup>21</sup>

And furthermore, our younger brother Heluta regarding his women will ask. When we went away his younger sister was badly off. Concerning this he asks. Possibly now she has become a little better.

And, furthermore, we live here happily, notwithstanding it be far away. Verily on the brink of the waters of the world, even there we are living. See! just now one of us came up embracing an enormous quantity of little twisted shells. And furthermore, you coughing old smokers, what have you to say to that? (we should like to know)? With nothing the matter we abide here. No one of us has any ailment. We are precious here sitting. Those who dwell with us here cherish us. We have a mother, and as if with relatives we dwell here. In the house of the rich we abide here, and furthermore here on the headland of the rich we abide. From a place of great quantity of speech making (and prognostication) we went away. When we arrived, our younger brother Tenatsali, and our younger sister Emilia, and Maggie, and also our mother the priestess, as well as her relatives, and all of our friends in good council awaited us when we arrived. Here we then happily looked one upon another; happily we spake one with another, and thereby became most happy. If only a little, yet our younger brother Tenatsali has recovered now. Therefore with nothing the matter we dwell here. Happy every one of us here we dwell.

According to words we heard we dwell here. We are not poor. Of good food day after day we thoroughly eat; and moreover we have fine rooms; good beds we have; and even sleeping rooms by ourselves, in them we sleep. Therefore we dwell here happily. There was nothing whatsoever of lying in what was said to us, verily it seems the truth, and nothing else. Whatsoever was said to us, it proves to be. Our elder brother Enos truthfully spake to us, and not otherwise. As he told us, it seems thus and not otherwise we here dwell.

How many days are included in the count of the coming of the Sacred Dance? Of course you will tell this straight to Black Mustache; howsoever many days you tell him it is, he'll furthermore tell us straight; and thus understanding it we will abide.

Possibly whensoever the guardians of the Sacred Dance (Mudheads) have recited their cry (the town through) we will come. Furthermore if there is any difficulty whensoever the Long Horn has recited his cry, and they shall have passed one night in the sacred council, perhaps then we will come. If moreover there should be any difficulty on the day before (the ceremonials) we will come. If, moreover, there is ever great difficulty, then when the Sacred Dance shall have departed, we will come.

Of course you will tell all this to Black Mustache. Tell him straight, and he, you see, will write how many days there are to be. A letter speech of it he will make, and will send it to us, and we looking at this will understand.

Now then, moreover, I will cause a letter to go to you. When I have caused a letter to go to you, you shall abide in expectation of us; understandingly you shall abide; for as many days as there are to be before our coming we will inform you of.

Thus much  
By Palowahtiwa,  
Waihusiwa, Heluta  
& Tenatsali,  
we speak

PART III



## Surveying the Territory



## Introduction

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In this central part of the Itinerary, Cushing relates the travels of the Hemenway Expedition from its arrival at Fort Wingate, New Mexico, in early January 1887 to its first campsite (“Camp Augustus”) near Tempe and the initial significant discoveries at the excavation that Cushing named “Los Muertos.” In often hilarious passages Cushing tells of his Zuñi companions’ first ride on a railroad, of a frontier night in Prescott Junction, and of marching down through Chino Valley, Bumble Bee, Black Canyon, and New River to Arizona’s central valley. As he progresses southward to what he presumed to be the prehistoric home of the Zuñis’ “Ancient Ones,” details of supplying and loading wagons, descriptions of a remarkable group of stray frontier characters, and sweeping views of the arid landscapes alternate in Cushing’s tale. Once settled in camp, the account ends with the unearthing of exciting finds at Los Muertos on 1 and 2 March and Cushing’s reflections on and anticipations of the future.





Field Notes and Journal of Explorations  
and Discoveries in Arizona and New Mexico  
during the Years 1887-'88 by  
Frank Hamilton Cushing, Director  
[Fall 1886 to 2 March 1887]

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Some account of the origin, organization and equipment of the Hemenway Southwestern Archaeological Expedition,<sup>1</sup> as well as of the lines of inquiry and methods of research I sought to follow as its Director has been given in a paper I contributed to the Berlin meeting of the Congrès International des Américanistes, in the autumn of 1888,<sup>2</sup> and again in a little brochure on our field work in southern Arizona, prepared by the first Home Secretary of the Expedition, Mr. Sylvester Baxter, of the *Boston Herald*.<sup>3</sup>

It has seemed to me desirable, therefore, that the fuller presentation of this portion of Expedition history be deferred for the present and later included in the story I shall ultimately relate of a singularly [and] quaintly interesting autumn we passed with three of my Zuñi Indian brothers beside their revered "Ocean of Sunrise," at Mrs. Hemenway's Home called at that time "Casa Ramona," near Manchester-by-the-Sea, in Massachusetts.

It was during that unique autumn of 1886 that I was enabled, through Mrs. Hemenway's friendship, aid, and abiding interest in Indian life, to carry much further than ever before, notwithstanding much ill-health, my studies of Zuñi folk-lore and myth, language, custom and music.

It was also through the interest of these studies and their humanitarian ob-

jects more than aught else, I believe, that the idea was conceived and formed by Mrs. Hemenway of an archaeological Expedition to the Southwestern land of Zuñi and other Pueblo antiquities. Hence the series of Zuñi folk-tales and other Casa Ramona studies which also I hope ultimately to publish, will form a fitting introduction to the special contributions of myself and of my collaborators in the Expedition proper which will follow speedily, it is likewise to be hoped, this itinerary report.

I have thought well, also, of giving amongst the latter the fuller narrative of my return with the Zuñis to their pueblo homes after the close of our autumn at Manchester, and of a subsequent visit there by Mr. Secretary [Baxter], Mr. [Fred] Hodge, and myself; since these incidents in our preparatory career were of unusual interest alike in connection with the Casa Ramona works and with my earlier long-continued residence in and experiences at Zuñi.

Let it suffice, then, if I merely mention that, accompanied by Mrs. Cushing, by her sister, Miss Margaret W. Magill as artist, by Mr. F. Webb Hodge, previously of the U. S. Geological Survey, as secretary, and by the three Zuñi Indians, Pá-lo-wah-ti-wa, Wái-hu-si-wa and Hé-lu-ta, we left the East early in December. Generously furnished with special rates and passes alike by officers of the Chicago, Burlington and Quincy Railroad, and of the Atchison, Topeka and Santa Fé System, we speedily won our way as far as Albuquerque, New Mexico. There, equally favored by courtesies then, and later, from the agents of the Atlantic and Pacific Railroad, we partially outfitted, and proceeded to Fort Wingate, then the nearest available station whence to reach Zuñi.

I was peculiarly fortunate in bearing letters from my former chief, Major J. W. Powell, Director of the U. S. Geological Survey and U. S. Bureau of Ethnology, commending me and the purposes of the Expedition to the consideration and aid of officers at Government posts. He had also granted me the privilege of temporarily using such transportation facilities as the winter camp of the Geological Survey, under charge of Mr. Arthur Watts,<sup>4</sup> of Wingate Station, might afford.

We were hospitably received amongst old friends at Fort Wingate by Captain and Mrs. Waterbury,<sup>5</sup> who made us welcome at their charming home there during the brief period I had assigned for rest before returning to Albuquerque for the purpose of more fully equipping and outfitting the Expedition for field service.

On the day following our arrival, however, a courier from Zuñi arrived, urging us in the name of the Chief Priests of the Bow, not to delay our return longer.

Our society was about to meet for the annual Ceremonial of the Middle, at which not only Pá-lo-wah-ti-wa but I also must needs be present, they said, since I had long been absent from my place in their circle, making it imperfect.

On the following morning, therefore, I succeeded, with Mr. Watts' assistance, in making ready the covered buckboard of the Geological Survey and in selecting from the herd four mules in moderate condition for service, though sadly run down from want of a good winter range. We made such good progress provisioning for a trip of six days, that we were able to leave the Post—Mr. Hodge, the Indians with their packs, and myself,—toward mid-afternoon of the same day.

Long before we had crossed the mountains and begun to descend into the Valle de las Nutrias, dark began to gather, deepened by the oncoming of a fierce snowstorm. To add to our plight the cold became intense and the mules balked exasperatingly at every turn of the road, giving us trouble in descending even the first and least frightful grade of the mountain road in Nutria.

I decided, therefore, to halt for the night, among the piñon trees midway down for, once on the way, and here, where we now paused to camp, I was seized with severe attacks of my illness which resulted in fainting. The building of a fire on either side of me by Mr. Hodge and the Indians revived me, and forthwith a little shelter was made in a nook among the trees by one of the Indians, whilst the other two took the mules down to water, turned them out to graze and gathered abundant firewood. Soon we had melted snow, made coffee and cooked supper, and our spirits brightened with the prospects of tomorrow's reunions in Zuñi.

But later, I was wakeful, and busied with renewed planning for the work of the Expedition. The poor condition of these, the best mules of the herd from which I had been given permission to select, the unusually severe winter and the condition of my health under such exposure made it necessary for me to arrange for this work in some other portion of the field we proposed to cover during our explorations of two years.

I had at first intended to begin field-work around and to the west and southwest of Zuñi and thence to progress gradually farther west and south, progressively connecting our northern research with studies of ruins in the Gila and tributary valleys through the important and comparatively unknown but archaeologically rich territory drained by the Upper Salado or Salt River. It had, it is true, occurred to me that in case snow or cold interfered with this plan it might be well to proceed as directly as possible over the Escudilla Pass and Mogollon Mountains directly to the Upper Salado. But now it became evident that to follow any

mountain route would be hazardous if not impossible. I determined then and there to make a long detour by railroad as far as Ash Fork, in western Arizona, then proceed, before the February snows set in, to the lower Salado, and thus by a journey of over three hundred miles reach by springtime the basins, valleys and canyons of the Upper Salado which I had hoped to enter directly from the Zuñi region.<sup>6</sup>

The more I thought of this latter course the more it commended itself to me. Already well acquainted with the Zuñi region far and near, I would, it occurred to me, thus be able to make a hasty survey of our southernmost field also, and so, perhaps, be the better prepared to make the archaeological and ethnologic connection between the northern and southern sections which seemed so desirable.

With this idea I sought counsel of my wise old brother Pá-lo-wah-ti-wa. I told him that I was thinking of going far away from the cold, and that I would want with me two or more of the Zuñi, himself, if he would go, and Wái-hu-si-wa, if not some others of my near adopted relatives. He reflected a moment. —

“Look you,” said he, “you were faint by the way. This came of the hardening of the sinews of your navel, a thing, as you know, a Priest of the Bow must expect, when he is aweary or cold.

“Now I am as like to prove a bad traveler as you for the same reason. It is wise for you to go to the land of summer warmth, but I cannot usefully go with you. Now Wái-hu-si-wa is not long married, and it were not strange, too, if he became at any time soon, the priest he is to be, sooner or later, of the clans to which he belongs. Therefore, let me choose for you a hardy but not over-deliberate comrade given to hunting and much travel—Wéta; and a deliberate but not over hardy youth given more to thinking than wandering, but needful of travel—my nephew, Sí-wa-ti-tsai-lu. Many others will wish to go; but take you these. I will speak to them.”

In the morning he went on to Zuñi. Delayed as we had been, alas, the ceremonial we were to have attended was performed during that same night, and the Zuñi knowing, as we harnessed our lazy mules, that the taboo against fire would presently be announced and signaled to all Zuñis near and far, would not smoke nor scratch a match outside of our house on wheels, nor suffer me to do so.

The day was well nigh spent in working our way to Zuñi, so poorly did our mules respond even to the free whipping they had. But hungry and cold we at last turned down our beloved Zuñi valley and with glad thank-offerings of prayer

meal, and many in-drawings of breath, saw over the lava hills the far off smoky and dun terraces of our pueblo home.

More in detail I will, as I have said, tell the story of our reception there, and rehearse the words, many and beautiful, with which we were welcomed. Here and there I found a new house had been built. Over in the campo santo the new graves were many, and I heard in deep sadness after our preliminary smoke and ceremonial greetings were over, how this father had died, that brother was no more. One of the oldest masters of our Order of the Bow sadly said how missed we were in our places around the altar fire since more than all others the Priests of the Bow had joined their predecessors at the Lake of the Dead and in the lightning clouds of the beloved.<sup>7</sup>

Late it was when the council gathered to hear and be heard by me broke up. It would indeed have lasted until morning as in the old days had I not retreated, much to the displeasure of old friends, to Mr. Graham's, still the hospitable trader of Zuñi,<sup>8</sup> but I was very ill and very tired, and the mournful and reproachful way in which my announcement that I must still be wandering further was received, had made this reunion after years seem far sadder than I had supposed it could be. But I noticed a curious welcome to my unwelcome plans, which was not explained until later. It arose from the idea which had been conceived during my long absence that I might be either a reincarnation of an olden hero priest of Zuñi, Te-na-tsa-li, my namesake, or more evidently so it was held Po-shai-an-k'ya—the fabled Montezuma of Mexican folk attribution—himself. When, therefore, I proposed that the fathers should bethink themselves what ones of their young men should journey with me among the far off ruins of the south and west, they exclaimed with one accord—through the Chief spokesman of the Council, “Look ye the younger brother would go forth from us again!” But “In the trail of our Lost Others he will go, haply to find them or whither they went, what time they fled along the upper vales of the Red Flowing Waters in the days of creation time.” And later, I understood too, the emphasis with which it was said—“Yea, and meet it is that such as he should follow their trail—meet too that of youths twain or more if he command them he should have of them to be his trail followers, as once before it was in the olden time.”<sup>9</sup>

On the morning after the council I awoke, not only still tired, but ill, very. As our animals were so balky and lazy it was necessary to set out as soon as might be. All harnessed and packed, I ran back to the home of my Zuñi family so full

of memories and of the friends who peopled these too. A considerable concourse of my kindred were gathered there. They awaited my coming back, not to bid me farewell; nay, but to make me promise to return in person for "the youths" ere I left for the south. This I had to do before they would speed me. It is true my clan sisters sprinkled me with water and meal as for a long journey; but this they did in a precautionary way, I take it, knowing of old my uncertainty of movement. On the other hand the brothers and fathers would admit nothing but that I would and must return to hold a great tribal council even if I did not want the youths. I left them insisting on this.

All day long we labored wretchedly on through bad snowy roads, or, where not rough and snowy, worse and sandy, until we at last turned into the deep cañeda leading to Nutria, from the Zuñi valley road.<sup>10</sup> Still we had far to go ere we could reach my old piñon-embowered camping place of Na-ta-ta-kwin midway to Nutria.<sup>11</sup> It was bitterly cold. First one and then another would have to get out and run along the way to keep, it seemed to us then, from freezing, and it was after ten o'clock of the night when I descried, by means of matches, the trail leading aside to the "Place of the Olden Deer Corral." There we built a great camp-fire, cooked supper, and being speedily revived, threw up a cedar-bough shelter, then stretched ourselves out to smoke a little and rest. Just as we were settled, tun! tun! I heard the thud of an approaching horseman. Then we heard the wonderfully weird yet melodious song of peace a Zuñi always sings if approaching a friendly camp at night. Presently an old acquaintance rode in — Hu-la by name — who was a priest of the Knife Order. When he had supped and smoked a little, he fell to examining me quite curiously. He said he had been out turkey hunting and had but late returned, learning of my visit to Zuñi. That he had come at once to greet me. Then he asked if I remembered himself how that he was one of the fathers of our order, the Priesthood of the Bow. I told him I did.

"Alas! you have long ere this forgotten the formula of your sacrifices as a member, have you not?"

"Nay;" and I repeated the semi-secret instructions.

"Listen to this and wonder," said he, as if to someone outside, and with increasing satisfaction he continued: "It is well; but you could not sing the Sa-wa-ni-k'ya Te-na-pi-lan now, could you?"

I hesitated. He motioned with his chin and a twitch of his cigarette toward Mr. Hodge, who, new to this life, had already fallen asleep.

"He would not understand, would he?"

"Nay, even if he were not asleep," said I, throwing a blanket over his feet. Still I hesitated.

"Ha!" exclaimed Hu-la; "you need not mind me; your buttons are safe brother younger. Am I not a father of your order?"

"E—e-e' he, lu—u-hu  
 La-sho-wa-ni,  
 K'ya-wai-a-ni  
     A-ni-kwa-a-a-  
     A-ni-kwa-a-ha  
     A-ni———

"Hold! brother younger," said Hu-la, lifting his palm. "Sing less precisely, you fearful fellow; do not conjure up stoutness of heart for a night of peace unless you would have it fail on a night of another time. I am satisfied. Well then, I hear you are going after the Lost, and would have followers of your trail."

Hu-la then proceeded to pour out lore of the lost Others, hinted knowledge of tales and rites I had vainly sought from him long ago, always to be met by this excuse or that forbidding reason; and after dwelling equally at length on his prowess, hardihood, skill as a hunter, and known good "traveling temper," proposed that I take him instead of "that leivitous We-ta" or "that weak richling Si-wa-ti-tsai-lu," etc.

Now I have not told all this idly. It evidenced to me that I would be able, as Palo-wah-ti-wa told me, to secure Zuñi companions without trouble, and helped to confirm me as to the expediency of going to the extreme south for winter work, even at the cost of changing my earlier plans and of doing the hardest part of our traveling at the outset. It also taught me the importance of testing whether the myth of the Lost Others was founded on fact, as there seemed reason to suppose, and in this the Zuñi could be of great help, confirming, for instance, my identification of ruins and the symbolic meanings of such pictographic and other art remains as might be found.<sup>12</sup>

I told Hu-la—fearing that he would urge his case until broad morning, and really happy to think I could get him to join us as a volunteer—that he should go, even if the other two went also. Then I prepared to sleep. I offered to share my blankets with Hu-la because there were a score of miles of zero surrounding our camp (to be entered only a dozen feet away from our fire); but no! Bent on



showing me that he was all he had claimed to be of hardihood, he was quickly in his saddle, and tat-tat, tat-tun—sounded the hoof of his pony on the frosty trail, whilst long after this sound had ceased, notes of his song came wafting back, making me pity his poor throat for the strain put upon it to convince me of his “traveling temper.”

Well, we slept like the piñon trunks not yet burned that brief night; but in the early morning we were awakened by a horseman—American, this time, who, when invited to breakfast, alighted and snatched a hasty meal, looking back occasionally, then at his horse—a good one—as if to calculate his power of endurance. I noticed the brand of the animal, the characteristics of the man, and decided that he was in great haste for most sufficient reasons and his attention to his arms, his spurs, the cinches on his saddle animal and pack-horse confirmed this. Yet whilst the coffee was boiling and the breakfast frying he gave me vastly important information about ruins in the far south which he had ranged over, proving his assertions unconsciously by the very descriptions he gave me in terse cowboy vernacular, and thus more than ever fostering the desire to open our lines of preliminary reconnaissance in the far south, rather than here.

I may add that a few days later, ranchmen were scouring the country for this same traveler—who was fleeing, it seems, from a shooting affray involving other, and to the rancher, graver causes for vengeance.

But despite our early caller we were belated in getting off toward Wingate, some harness having broken and needing repair. Then, as soon as we had descended into the plain of Nutria and our buckboard now pushed our almost hopeless mules along,<sup>13</sup> I had to bestride one of them, sick though I was, so as to reach with our goad the especially laggard leaders. Thus we worked our passage by mid-afternoon, to the top of Nutria mountains where, exhausted with the effort of keeping our mules even at a fair walking pace, we paused to warm ourselves and eat a luncheon. Whilst we were thus resting Mr. Graham, with Nick, his Zuñi assistant, joined us. He was on the way to Albuquerque, and with his companion had suffered the same annoyance (of balky animals) that we were lamenting. He spoke of a fine saddle horse which he owned, but could rarely have the use of on account of the distance of the pasture range from Zuñi. Contemplating, as I was, so long a journey, I proposed a purchase or the rental for a year, say, of the horse, for I knew of him already. It now appeared clear to me that it would be necessary to purchase or rent, if I could, all of the animals we would need. Therefore, I engaged to meet Mr. Graham in Albuquerque, whither I foresaw it would more

than ever be needful for me to return, and engage his kindly cooperation in some of the business arrangements it would be equally necessary for me to enter into there.

It was after seven o'clock when again we reached Fort Wingate already dark and bitterly cold. As a result of the exposure and over fatigue of the whole trip, both Mr. Hodge and I were far from well on the following day. Nevertheless, it was incumbent on me to launch the party along the lines I had now in mind as speedily as might be.

I returned the teams, engaged the aid of Mr. Watts in seeking for serviceable draught mules, wrote to the home office for authority to purchase rather than to rent the animals we would need—sixteen, at least—and arranged to visit Albuquerque on the following day if possible.

I soon had news that there would be a sale of extra mules at Fort Wingate, and that Mr. Crane, a locally celebrated rancher I had well known in former years, was about to sell out also, and had several animals. But nowhere could I find a sufficient number for rent in the hands of any one individual or party. This being the case I had to determine without awaiting authority from the home office for so doing, to purchase all the mules I could and to hasten in every other way our preparations for taking the road; for it occurred to me that even if the home office should not deem it prudent to invest in so much perishable property, I could purchase and then rent to the Expedition, certainly at much more reasonable rates, the transportation outfit, including mules, wagons, etc., than those customarily paid in the territories of New Mexico and Arizona by the Government in its surveys or military reconnaissances—this being not less than fifteen dollars per capita of stock.

I therefore appointed Mr. Watts, whom I had known for years as a thoroughly experienced man in such matters, to act as my agent at the sales I had learned would take place, as well as in searching for other draught and pack animals.

On the day after our return from Zuñi I chanced to meet, having some repairs of apparatus in view, Mr. Charles A. Garlick of the United States Geological Survey. In the intervals of his field work for this service he was engaged as Post wheelwright, his familiarity with various handicrafts being as complete as was his reputed knowledge of preliminary topographic work. As I had known Mr. Garlick before, and known also that he was thoroughly accustomed to such service as would be required throughout our explorations, I proposed to him that he should, at any rate during the rest of the time which would elapse before the

recommencement of the field work of the Geological Survey, enter our service as topographer and general field superintendent. He gave a night of consideration to the matter, and on the following day accepted the proposition, and was entered on the list of our employees. I therefore constituted him as well as Mr. Watts, also an agent for completing some of the arrangement which I had laid out at Fort Wingate, and taking Mr. Watts with me to aid temporarily in the final outfitting of the camp equipage, proceeded to Albuquerque.

As, on account of the new arrangement, I anticipated that considerable time would elapse before we could actually enter the field, the ladies accompanied me to Albuquerque, there to remain at the hotel until our preparations were perfected. During the following two or three days (*Thursday, Dec. 30, 1886–Sunday, Jan. 2, 1887*), aided during the first by the counsel of both Mr. Graham and Mr. Watts, and able to make, through the extensive dealings they had carried on with various firms there, extremely advantageous arrangement, I purchased the greater part of our supplies—all, in fact, that could be determined upon at so early a stage of the preparations. These included cooking and dining utensils, blankets, firearms, and one very heavy Newton wagon, and a large or double as well as a single buckboard, to the former of which I arranged to have a canopy top attached for better protection and comfort in our traveling at bad seasons. I had both of the buckboards also fitted up with boots and canvas coverings so as to enable us to load them to their utmost capacity and in an orderly way.

When all of our purchases were completed I had reason to congratulate myself not only on the very short time which had been required for this part of the work, but also on the much more reasonable figures of the purchases than I had supposed could be obtained in so remote a town as Albuquerque. It was during this visit that I also found renewed cause to be grateful to each of the several resident officers of the Atlantic and Pacific Railroad, all of whom joined in procuring for the Expedition not only the courtesies of the road, in half-fares and passes for our party, but also in reduced rates for transportation of our mule-teams, camp outfit, and the bulky store of provisions I was laying in.

Intent on attending personally the sales I have mentioned at Fort Wingate, and the neighborhood sales, on again visiting Zuñi, to add to our party the two or three Indians who had volunteered to accompany us, I speedily returned to Wingate station, taking up my quarters there, rather than at the Post, with Watts in his comfortable and well appointed winter tent. At Fort Wingate, with the assistance of both Mr. Hodge and Mr. Garlick, I was able still further and more

advantageously to fit out, in the way of tenting, etc., and in the way of various other quartermaster and commissary supplies—gaps which with this in view I had left unfilled in Albuquerque.

My former relation with the Government service, as well as recent letters and orders relating to our case, but more than all the courteous cooperation of old friends at Fort Wingate, particularly of Lieutenant Gilman,<sup>14</sup> Quartermaster and Commissary at that time, enabled me to procure many sorts of conveniences for precisely the kind of work and traveling we had to do, which otherwise would have been unobtainable.

Meanwhile, Mr. Garlick began at the shops of the Post the construction of a trunk for himself, and of some packing cases and a mess chest for the Expedition. In this work his services were invaluable, because he added to his perfect knowledge of joinery the interest of belonging to our corps.

On the next promising day (provided for as before for a trip of a week, more or less), Mr. Hodge and I set forth again for Zuñi. I was by no means well, but I was extremely anxious, for many reasons, to make this second trip. I wished to join my order and my Zuñi brethren once more, at last, in some of their ceremonies, to hold councils, and to gain important information from them. I wished also to meet them as under like circumstances I would wish to meet my relatives and friends in the land of my nativity.

A somewhat different selection of animals was made for this trip; but, alas, with scarcely better results. Mr. Hodge and I had a weary time and a cold journey, withal, in reaching, late that evening (*Monday, Jan. 3, 1887*) my always favorite and delightful old camping place of Na-ta-ta-kwin.<sup>15</sup> But during the latter part of the day I was extremely ill again, in much the same way as I had been on the first journey; and as the night deepened, it became manifest to me that the attack from which I was suffering would endure even if I rested a day or two at least, and would only be aggravated in attempting to journey farther. I therefore planned to send Mr. Hodge in my place on a most lonely journey, but one for which he cordially volunteered, and I wrote for him some little notes in the Zuñi language whereby my wishes could be expressed, not only in regard to the Indians who were to accompany me, but also in regard to the horse I had arranged, while in Albuquerque, to purchase from Mr. Graham as my personal saddle animal, as well as to convey an invitation to Pa-lo-wah-ti-wa, Wai-hu-si-wa, and others of my adopted brethren to council with me the following night at Na-ta-ta-kwin.

Whilst Mr. Hodge was engaged in learning his first lesson in Zuñi, the rattle of

a wagon and the peculiar language of a Zuñi driver to his horses were heard, and who should appear presently but Hu-la. I hailed him and he delightedly came up, stating that he was even then en route to Nutria to fetch away the grain he had stored there for the use of his family during the long absence he with me contemplated. Inasmuch as he said he would remain at Nutria probably a day or two, I prevailed on him to return to camp that night and talk over the various negotiations I wished to make in Zuñi, and to accompany Mr. Hodge on the following day.

This he did, and they set out accordingly at an early hour the next morning (*Tuesday, Jan. 4*), leaving me still very ill but as comfortably placed as could be under the circumstances. During the middle part of the day it was restful there in my little bower among the piñons, but as night began to approach clouds gathered somewhat and the heat of the sun was replaced by increasing cold until toward sunset it became necessary to keep a great fire burning continuously. Growing better as the evening fell, I gathered with my large hunting knife, considerable quantities of cedar boughs and piñon, extended our shelter, gathered also a large quantity of firewood for the night, and awaited anxiously for the return of Mr. Hodge and his party. It was after nine o'clock when I finally heard them climbing the long sloping hill that led up to the crest just over which, toward the north, lay our camp. I piled the wood high on the camp-fire to make it still brisker and lighter and began at once the preparation of a plenteous supper for the belated wayfarers, knowing that with such mules to drive and such labor of passage, they would be worn out, cold to numbness, and well-nigh exhausted. They came in, a few moments later, all of these, but as cheery as could be, every one of them, and very happy to find me so much improved.

Again Pa-lo-wah-ti-wa and I, with Wai-hu-si-wa this time passed a good part of the night in discussing our future and in arranging for the addition to my party of We-ta and Si-wai-ti-tsai-lu. Hu-la had remained behind to secure and bring to me Mr. Graham's horse; but Pa-lo-wah-ti-wa informed me that in all probability certain duties he had to perform in his priestly office would necessitate his abandoning the project of accompanying us, thinking also that he would speedily grow homesick or otherwise tire of the long travel and give more or less annoyance both to myself and to my other Zuñi companions.

To be briefer, all arrangements not completed by Mr. Hodge and Hu-la were attended to, and the night passed away very pleasantly, broken only by the arrival, well on toward morning, it seemed to us, of another party of Zuñis—some

young men, Quam Pu-mu-si, an elderly adopted San Felipe Indian, and my old friend Mi-tsi. . . . Each one confidentially informed me of his anxiety to join the proposed expedition toward the Ocean of Sunset and the "Land of Summer in Winter—*Ali!*"

So much remained to be said on the following morning, however, that Pa-lo-wah-ti-wa and Wai-hu-si-wa did not get started for Zuñi and the rest of us for Fort Wingate until a late hour, and we were unable to proceed farther than the summit of the mountains above Las Nutrias, where on a terrace high up this time we camped in another favorite old resting place of mine among the sheltering evergreens.

Nearly all night our Zuñi comrades talked with me; one in particular, a fine, hearty younger brother nicknamed He-pa-lo-k'ya K'ya-pi-k'ya told a folktale explaining, according to the native fashion, the bashfulness and general awkwardness of youths while courting. From the elder members of the party I gathered, moreover, information which I was anxious for, relative to the ruins of the farther west and southwest. Especially valuable were the descriptions of places and routes given me by my self-styled father, Quam Pu-mu-si, who had made, with two or three companions, a burro journey on foot to the Pacific, for the purpose of collecting shells and sacred water there. I was so interested in the talk of this aristocracy of the camp-fire, that I lost a new and most valuable ring through failure to note where I placed it in preparing for the night—the seal with which I had made the Zuñis acquainted in order that they might recognize letters which I might hereafter send them. Whilst the preparations for leaving this camp in the morning were going on, I searched diligently, as did two or three of the young men, for this lost treasure, but without success. Little delayed by this, at a comparatively early hour we set forth in a lightly falling snow for Fort Wingate, reaching the Post in fairly good season; nor were we so much fatigued as before.

We now redoubled our efforts to prepare for the field; the more happily and the more arduously, also, from the fact that I found awaiting me replies from the home office recommending the renting of animals for the outfitting rather than the purchase thereof. It devolved upon me, therefore, to purchase personally all needed additions to our transportation department since it now appeared more than ever certain that I could not find a sufficient number of animals, wagons, etc., near or far, for rent.

While Mr. Hodge, Mr. Garlick and Mr. Watts were left with direction to do what they could toward this, in the Wingate section I again proceeded to Albu-

querque, having in view the buying of such additions to our stores etc. as a more complete knowledge of our requirements revealed the necessity of. Furthermore I had received a message from Mrs. Hemenway which gave me the greatest pleasure; namely, that we might expect to meet her with a party of friends on a journey she had proposed to the Pacific Coast, but which had been determined upon only after our departure from the East. I was invited to join this party as far as practicable from Albuquerque on, in order to discuss other plans relative to the Expedition, to indicate the necessities that had become evident from such preliminary survey of the field as I had been able to make, and to report progress and prospects which such survey was calculated to render more evident.

My visit to Albuquerque extended over only two or three days, but during that short time I was able to complete all purchases and arrangements, inclusive of the transportation of our party to Ash Fork, the proposed junction of the Atlantic and Pacific Railroad with the Arizona Central Railroad to Prescott, then well on toward completion.

On the evening of the *14th of January* Mrs. Hemenway's car arrived at Albuquerque. I hastened down with the ladies to call upon the party of travelers. I learned that the train would proceed on its way that same night, and hurriedly prepared myself for the journey, happy in the prospect of spending the entire succeeding day in a trip over an archaeologically interesting country with Mrs. Hemenway, her daughter, and other relatives and friends, as well as with my esteemed friend—her companion for the time being—Dr. William T. Harris.

After these weeks of travel and hard service it was most delightful and encouraging to find that Mrs. Hemenway's enthusiasm and interest in the work had but increased, and that Dr. Harris's estimate of its scientific value and import was only confirmed by a vision of the country gained from our car windows as we sped along through valleys, over plains and mountain plateaus west of Wingate all through the following day.

In the valley of the Rio Puerco, some eighty miles northwest of Zuñi, I pointed out some low hills to the north, now apparently mere heaps of sand, and some wide plains, over the extent of which I had found fragments of pottery and other ancient remains. On a saddle trip through this valley and the surrounding region some years before I had discovered that these sand-knolls were ancient pueblos buried by the storms of centuries. As I pointed them out to Dr. Harris and described this to him he replied, as I had good reason to remember, many months afterward, that he would not be surprised if, in other valleys no less than in this,

I should discover that the deserts had once harbored large populations, and that under the surface of even the plains I might find the foundations of ruined towns or even of cities. This I believed myself, but felt wholly incompetent to prove at the time. But I did not dream then, or for long afterward, that these words would prove not only true, but even less rather than more than true, so great was the extent of our shortly subsequent finds.<sup>16</sup>

With the noblest expressions, and as ever enthusiastic, of ambition and hope for the future of our joint work, Mrs. Hemenway, Doctor Harris and the rest of their party bade me good-bye as we neared the station of Flagstaff, under the great peak of San Francisco. There I left them, awaiting the east-bound train soon due.

An omen of good fortune, it seemed to me, was, that as I was strolling up and down the track a quarter of a mile or so east of the station, I should come upon a cut where, in 1881, I had seen fragments of pottery and should there find, washed out by subsequent rains, a very ancient little vessel, rudely shaped like a bird—the first specimen, I might say, gathered by the Expedition. It was the second or third animal vessel I had ever found in the Southwest. Subsequently, I regret to say, this specimen was lost or destroyed; not, however, before I had secured note of it, and a rude sketch herein shown.<sup>17</sup>

The east-bound train whistling in the distance soon put a stop to my little archaeological reconnaissance. I hurried aboard of it and was soon speeding back to Fort Wingate, which station I reached on the following day.

I learned from Watts that the sale of stock had taken place and that six really excellent mules had been secured; and a day or two later four others were brought in and, according to previous arrangements made by Watts, sold to us from the Crane herd. These, together with my Zuñi horse, Douglas, a little but most enduring and excellent mule brought by Sí-wa-ti-tsai-lu and an Indian mustang by Wé-ta, formed the entire herd we were able to gather previously to reaching the farther west.

During my absence, short though it had been, Wé-ta and Sí-wa-ti-tsai-lu, escorted by Pá-lo-wah-ti-wa, and Wai-hu-si-wa had arrived at Fort Wingate, and Mr. Hodge had secured for them quarters with the Navajo-Mexican interpreter of the Post, Jesús, who, for the time being, was on terms of even cordial amity with the Zuñis.

Throughout the earlier part of our day at Wingate (*Jan. 19, 1887*) Mr. Garlick and I, joined by Mr. Hodge, were occupied in completing the loading of the cars



which had been considerably sidetracked for us by the Atlantic and Pacific officials and, after a late dinner, in placing our unwilling animals aboard and seeing Mr. Garlick off in charge of them on the west-bound freight for Ash Fork.

Now that their mule and riding pony had gone, We-ta and Si-wa-ti-tsai-lu felt that the last moment was near at hand and urged me to speedily follow them and Mr. Hodge as far as their hut in order that we might bid farewell to Pa-lo-wah-ti-wa, Wai-hu-si-wa and the others in a finished (deliberately proper) manner.

Much remained for me to do at the Post, hence it was fairly early when I alighted where my Indian party was lodged in the old adobe hut far down below the Post—the temporary guests, as I have said before, of Jesús, the Navajo-Mexican interpreter of his tribe, which latter was, as well as himself, on terms just now of easy good fellowship with the Nas-ti-dji, as they called the Zuñis.

When, after a long conversation inside the hut, we came forth to say our good-byes, Pa-lo-wah-ti-wa was very grave, and even Wai-hu-si-wa curbed for the moment his usual light-heartedness and veiled the twinkle in his eyes.

The leave-taking was impressive, as Zuñi farewells usually are, being solemn and sacred observances rather than incidents. Pa-lo-wah-ti-wa led the way around the old hut—once, back in the forties, the residencia of the Commandante of a tent-camp Wingate—to where the declining sun shone full upon us. There he pushed off his head-band, and laying his right hand around me raised his left to the sun, then laid it on my heart and gave the benediction of an elder brother in the Priesthood of the Bow to a younger, of course in ritualistic phrase. Then he added an earnest appeal that I should remain faithful to the Beloved of all the regions as became a Priest of the Bow; that it might be well alike with me and with my followers, and I should treat We-ta and his nephew Si-wa-ti-tsai-lu kindly as became a brother to brothers in the wilds even as I had ever been known to treat themselves in their homes and in my own in sunrise and sunset lands. The others each merely said, “This also, O ye Beloved”—then embraced me and then altogether breathed upon me as I turned to my horse, then gravely crept back into the hut.

Proceeding to Fort Wingate I completed the purchase of the few additional quartermaster and commissary supplies we had found needful in loading, and taking a final invoice, settled accounts, made my farewell calls on friends, then, bidding Mr. Hodge join me early with the Indians, hastened back through the cold and dark to Watts' cheery white camp. It remained only for me to pack up

my personal belongings and the more valuable papers of the Expedition—few as yet—ere all would be ready for the initial stages of our actual journeying afield.

Since this and the following preliminary chapters are to form the ground-work or skeleton, so to say, of the series of special contributions earlier referred to, and hence are to partake of the character of an itinerary of the Expedition's wanderings, of my operations as its Director, and observations as its Archaeologist and Ethnologist, it is thought best to continue the more detailed part from this day of our actual entrance into the field of exploration, and to arrange it rather in the order of a journal than in the form of a monographic report or general history of the Expedition.

Meanwhile, the incidents of the following day were not without their meaning, if only to reconcile those of our party still unacquainted with the advantages of having one's own camp, [and] the disadvantages of not having such even for a single night. Moreover, the day's talk with the Indians was not without significance, as I came, long afterward, to learn, in our southern archaeological findings.

It was not later than nine o'clock in the morning of *January 20, 1887* when Mr. Hodge with the Indians equipped with their well tied packs joined me at Watts' camp. They were accompanied by Pa-lo-wah-ti-wa and Wai-hu-si-wa, ready also for the journey back to Zuñi directly from the station. We had barely time to dispose our many small effects for quickly boarding the train and for bidding my dear old brothers one more good-bye, this time in informal American fashion, ere the west-bound train approached. I had arranged by telegraph that the ladies (Mrs. Cushing and her sister, Miss Magill) should take this train. We were to join them here and proceed without stopping to Prescott Junction,<sup>18</sup> which, it now turned out, was beyond Ash Fork a few miles. It was wintry and the sky was overcast; snow was still lying in wide sheets over the plains at the foot of Wingate. The train came steaming in, but we were happy as we stepped aboard, finding the ladies happy also to be rejoined by us; and the cars were warm and bright—so much so that this train seemed almost a lightning shaft of civilization cleaving its swift way into the wilds. As we moved off Pa-lo-wah-ti-wa and his companions turned their ponies southwestward, waving their hands and cheering our departure as long as we were in sight. We-ta and Si-wa-ti-tsai-lu were conducted to the forward smoking car, there, less under constraint, to bear each other company whilst we took the places reserved by the ladies for us in the sleeper, an unusually fine one at that time, antedating as it did vestibules and compartment palaces.

But a little later, when we were speeding past He-kwai-na-kwin or Navajo Springs plain,<sup>19</sup> with its low snow-clad mounds of ruined towns far off to the left and south, I went forward to the Zuñis and joined them with a cigarette. I told them what plain we were passing. One of them, who was sitting upright—as much “on behavior” as a school boy in a new place (he never having ridden on the “trail of iron” before)—was profoundly impressed to think that before they had fairly “gathered and lighted their smoke rolls” they should have reached the length of a full day’s journey on horseback; “nor would have been,” so he went on to say, “late for leaving camp at this same measure of the morning, it being lazy winter time.”

I invited them at the little station there, where we stopped to water, to go back with me to the sleeping car. They followed me thither closely. At first they looked about quietly and listened with interested attention to my explanations of the berth and sleeping arrangements, the bell buttons and fire apparatus—all of which, truly Zuñi, they had not failed to observe, but the uses of which they had as yet formed no theory of and had, of course, not questioned me about. When I had done and asked them if they would prefer to pass the traveling time there with us or in their own sitting place in the van, they preferred the latter. They even seemed ill-content to sit much longer with us as “guests,” “for,” said We-ta, “you see we are unsuited to such surroundings and such adornment of housing. Verily this is a lodge, as it were, lined with furs and carpeted with bedding in manifoldly painted patterns. It ill befits men and travelers to sit herein, whilst to breathe here is for us painful and laborious. Come, let us go. We would fain keep hold on you. Come with us for a little, do. The brother Wai-hu-si-wa said that you never weary of words ancient, or of the deceptive talks of the grandfathers, as though that were aught new, for you have clamored for such since the beginning time of my acquaintance with you. Well, come then, and sit over against us in our place forward and we will relate a te-lap-na tale of the land over here to the right (north) ere it passes us by; or tell of the loss of our others, for here the first towns were built after they went.”<sup>20</sup>

I returned with them accordingly and heard their fragments of stories of the lost others, of the town, also where the people became stone in the days when all was new, and even great priests were changed to rock. But ere I heard all this we had long passed the celebrated jasper forests of Arizona and were nearing Winslow, our dining station.<sup>21</sup> We-ta was ready to join us there at dinner. Not so Si-wa-ti-tsai-lu, who preferred not to dismount, considering the he-toosh (“iron

horse”), likely any other, like to run off. Therefore, I had some food sent in to them, and when the train moved off went back to join the rest of our party and write up notes of the weird and quaint bits of legend the Zuñis had been telling me. It seemed to me more than ever that what I had learned of We-ta of the Lost Others, whom he represented as having fled away south up the Colorado Chiquita valleys and disappeared beyond the mountain in summer land, had more the sound of tradition, however remote and vague, than of mere myth. Furthermore, the folktales so hastily suggested (and related all too hastily) by our swift passing of scenes in which these old time stories are laid, suggested to me the value of traveling over all the Southwest with Zuñi comrades—an undertaking I longed to fulfill at some future time, if only for this one purpose. These tales have a place amongst their fellows related at Casa Ramona by We-ta’s brother, Wai-hu-si-wa; and with those rather than herein I will give ere long, I trust, the notes of them I then took.

During the afternoon the ladies and Mr. Hodge amused themselves with playing at games, note-taking, sketching, etc.; but as night approached I returned to We-ta and Si-wa-ti-tsai-lu to induce the latter, if possible, to descend with us, at Williams, where we were to make a considerable stop, for supper.

Having seen that the he-toosh, though “impetuous,” was quite tractable at the last stopping place, he made no great objection to this, asking, however, that he might take his camp-pack with him in the way of precaution, for he had been somewhat disquieted afresh by our passage of that tremendous rock gorge, Cañon Diablo, where one looks down from the car windows more than two hundred and seventy feet, seeing wildly eroded rock-slopes, scattered broadcast by pristine meteoric showers. But even from this trouble of mind We-ta and I were able to win him, so that when the train stopped he speedily followed the rest of the party and ourselves into the large dining place. It was low, but ample and well-filled with tables which were waited on principally by good-natured negroes. A large table was reserved for our party well to the rear, which I was thankful for, for I did not know how my Zuñi comrades would deport themselves at their first meal in civilization. But We-ta watched me, and the other watched him. When I took off my hat, off came We-ta’s head-band; then off, also, Si-wa-ti-tsai-lu’s. So in the handling of knife and fork. But alas! the Indians sat nearer the kitchen than we did. The waiters, therefore, brought the bread first to them. When a plate was offered to We-ta he calmly took all the slices therefrom, laying them beside his plate, whereupon the waiter, beginning to laugh quietly, signaled another to

approach with a second plate which, being passed to Si-wa-ti-tsai-lu, the latter likewise took all the bread from it. Both waiters hurriedly retired returning, as soon as they could, with more bread which was supplied to us. I took the whole also (wishing not to confuse the Zuñis), plate and all, passing it then to the ladies and Mr. Hodge. When griddle cakes came the same happened, as also with the cakes of other kinds which soon followed; but the waiters had grown wary and brought only the requisite for an individual now.

Without further accident, except that both poured coffee into their plates to cool it, we finished, and to the evident relief of Si-wa-ti-tsai-lu we re-entered the train.

At first I joined the Indians as we moved away from the station, having learned that we could not reach Ash Fork until about half-past eleven o'clock; and seeing that the Indians were sleepy after the monotony of the whole day's ride and their abundant meal, [and] therefore thinking that they might wish to lie down awhile, I had the seats turned about to make, with their heavy serape blankets, a bed for them. We-ta at once comfortably stretched himself out; but Si-wa-ti-tsai-lu, like an elephant under a roof, could not be induced to trust himself otherwise than on his feet, or, as he expressed it, "in his stirrups; for," said he, "it is well to be fearless, but not foolhardy! Nought impetuous like this iron horse is safe from error. If the way grow crooked or uneven, or if the steam horse of iron defy the control of its master, what then? I am even ready at all times to dismount!" Whereupon, as I bade them wait contentedly until we summoned them, We-ta, already drowsy but good-humored, remarked—

"And I, lying down already, have at least less distance to fall, and, look you, will be the stronger for picking of myself up having slept, *a-li*, (charming!) should the way hap to become rugged, as our younger thinks, mayhap, it will!"

After three hours sleep, more or less, we approached Ash Fork where Mr. Hodge and Si-wa-ti-tsai-lu (sighing relief) alertly left us, sleepily followed by We-ta.

The station was but dimly lighted, and the midnight wind blew down from the mountains searchingly. Mr. Garlick speedily appeared. He had failed to receive my messages in time to make arrangements for the sleeping accommodations of the rest of the party, but thought they could be "accommodated somehow." Nor did his news of progress on the unloading much reassure me; hence I determined to return in the morning, if possible, to straighten out difficulties and hasten the party forward, and so said.



Figure F. The Pioneer Hotel at Prescott Junction, ca. 1887 (courtesy of Sharlot Hall Museum, Prescott; photograph by Erwin Baer)

I told the Indians that they would fare but ill for the rest of the night; but as I jumped aboard the train I heard them laughing about it, the cold and every other difficulty—now that I told them that I would come back—as the train moved on.

Within an hour and a half we arrived at Prescott Junction [fig. F].<sup>22</sup> There was a heavy bearded man at the station, lantern in hand, with very high top boots on, and a sort of hug-tight coat. He was thick-set and good-natured, but bent on business with all the ardor of a westerner engaged in a new enterprise.

He speedily conducted us, with some strangers—who had introduced themselves en route, a good, motherly lady and her most attentive son who was out for an after-collegiate tour of the West—to the new hotel. This was called by him the “Pioneer,” and commented on, all the way, as “the finest hotel outside of Prescott, specially in the way of grub-stakes.” But our reception of this eulogium was constantly jarred upon by the fact that the long plank walk we were following in the dim light had been but newly laid, “and,” as our torch-bearer remarked in compromising language, “drat ’em, they ha’int been nailed down yit.”

I am tempted to pause—not long—in order to give somewhat descriptively the incidents of this, the first cure-all frontier station night of the Expedition in western Arizona. The railroad from Prescott had been only two days completed.<sup>23</sup> I will recur to its distinguishing features as a road later. But the arrival of it at

this point, in an arm of the Ash Fork branch of the Big Chino valley under the shadow of the lofty San Francisco and Bill Williams peaks had been the signal for the usual setting up of the combined canvas and board stores, saloons, caravansaries and laundries of a freighting and passenger station, ready, so the natives thought, to modify the territory and grow—who knew to what an extent!

As we were about to see, here was a hotel. It contained a lower story of unseasoned lumber, cracky in the extreme, through which the wind played jewsharp music on the slivers. But the host waved us into a general assembly room, slenderly cut off to rearward to make a kitchen of its back quarter, as evidenced by a butler's slide curtained sluggishly with bright calico. Next to this horizontal dumbwaiter, back in the right-hand corner, was the dining hall, consisting of two tables, each decorated with an elaborate plated "castor" and a tumbler of dingy tooth-picks, whilst opposite, to the left, was the equally unenclosed woodshed and baggage room. For the rest, the front was office, hallway leading to the ladder-like stairs, and general assembly room in one, a biggish, roaring, red-hot stove surrounded by wooden chairs occupying the center. One or two very sleepy or ruffled men attracted my attention, as did also two highly-colored prints representing "Before and After the Fall,"—a negro with a whitewash bucket atop a ladder symbolizing the first—a pig had rooted down the ladder and the negro was lying prone under his whitewash bucket. But when the host turned to "show us up," he remarked that the house was "temprunce, by gad, and don't you fergit it!" This covered its many sins, but I will chronicle the latter nevertheless, for like the sins of this world they no doubt are disappearing with the advancement of civilization.

Another remark by the host (who treated us as distinguished people who knew what we wanted, and "wanted it sure," because we had telegraphed him "like white folks") told us that he had kept accommodations upstairs, whither he preceded us, carrying in hand a greasy and bias-flamed tin lamp. The upper story was even more diaphanous than the lowermost. Here cheese-cloth, braced here and there by stronger cotton, swayed and bellied as taut sails in a wind, occasionally giving increase to little puffs of frosty mountain air. We found the landing of the stairs flanked on either side by crude beds. One was occupied by a heavy sleeper of stethoric type, whose face looked as though he had bathed freely in lather of laundry soap before retiring; but though semi-public his rest, it was undisturbed. We were then ushered into the three spare chambers. They were little cloth boxes—cheese-cloth, except one, which was triangular or nearly so. This

latter had a colonial, high-poster bedstead in it—too large for the room—which distorted the end wall of cloth as the bones of a starved horse do his hipskin; but as it was the most private place of the three, our ladies gave it up to Mrs. B——.

Now, the walls were so thin that the light, albeit dim, could not be used inside of any one of them, for it made a public place of it. We hit upon the device of letting each lady prepare for bed by transmitted or reflected light—that is, whilst Mrs. B—— prepared to retire on the one hand, I prepared on the other, our ladies holding the lamp meanwhile in their chamber and waiting. When we had completed our preparations they passed the lamp over to me—the partitions were not high—and I held it over against the cloth whilst they were preparing.

All this while young Mr. B—— was suspiciously quiet in his more distant quarters. Soon he modestly asked for the light, “because,” said he, “I want to look for—look around!” When I passed it out he went to his side of the landing and inspected the pillow on his cot, or rather stretcher. “Oh!” said he, with a sigh of relief, “It’s only dirt!”—so he passed back the lamp and laid him down. But I had yet a letter to write, and my memoranda of the day to finish. No joy of rest awaited me. I heard the ladies—brave and patient more than in the like situation are men—sighing and turning; for the other beds were grand, black walnut furniture, redolent and bright of varnish, but loose of joint after their long mountain travel, and consequently, like the dogs of an Indian camp, startled and noisy at the least disturbance. When I laid down I understood their situation better. The mattresses were made of gunny sacking stuffed with hay—desert hay, dry and harsh of touch. The sheets were squares of cotton laid directly on this; the pillow—mine at least—was still warm, offering due explanation of the sleepy and ill-contented look of one of the “common” guests we had seen below. But I wrapped the pillow in some of my outer clothing and stretched myself out. Alas!—three slats were gone from the middle—had perished, no doubt, in the mountain journey! No sooner did my full weight press on the mosaic of grain-bags which served as bed foundation, than two or three of these doubled up and went through, an angle or acute curve of myself resulting. I shoved the telescope bag I had, under the breach, and, once more reclined, this time bias-wise, with better results, but was soon fain to camp on the floor. But, alas, I found that the grandiose bed frame left no room, even underneath, for it was too low and contained, moreover, in far recesses, store of my predecessors’ belongings.

When at last I dozed a little just as the gray light began to manifest through the cloth walls, I heard mine host below saying,



“Well, now that feller up there *is* a swell, you bet fer here’s another telegraf-ferim!”

That was the end of my rest. I clambered out and stole downstairs to find that Mr. Garlick, fearful I might, after all, go on to Prescott, had sent a message for me to return to Ash Fork and start them, as he thought some of the freight was missing, and greatly needed my decisions on other matters involved in the preparation for disembarking.

Then I hastily secured tickets to Prescott on the new road for the ladies,<sup>24</sup> arranged the checking (or chalking) of their baggage, and returned to the Pioneer. The breakfast I had ordered was preparing with much bustle and circumstance — if a brazen calling gong made apparently of a disused locomotive bell may be named such — my breakfast was announced.

Mine host appeared in person as waiter pro tem at the rear of my chair to inquire what I would have for breakfast. Flapjacks, “Pioneer” bread, checked cheese, bacon, ham, canned stuff, and coffee, of course, made up, with eggs of established age, the repertoire. Ascertaining what I would have the “waiter” retired to the butler’s slide and called in a loud voice — “one bacon, one eggs, soft-boiled — an’ plenty of ’em — slab-jacks and bread.”

He paused a moment. “Say, what’s the matter there,” he shouted, and without waiting, himself disappeared behind the kitchen partition slide. There evidently he dished up the articles he had named, handed them through the slide, and reappearing, returned, the quondam steward or butler as waiter again.

But it ill-befits a narrative of this kind to dwell longer on the amusing or at least striking features of our Pioneer experiences. It served a useful purpose — that of making us all realize how much more comfortable anything expeditionary would be than such Pioneering.

Presently, before I had fairly finished my meal (which, of course, disagreed with me later) the whistle of the east-bound train was heard. I paid my bill, which, being curious, the reader may here examine in copy;<sup>25</sup> ran up to say good-bye and give parting directions to the ladies, then sallied forth, followed by the benedictions of our most kind-hearted, even if somewhat rough and peculiar, host.

Out in the glorious sunlight the little town — more considerable than it had seemed the night before, but, like the Pioneer, of cloth and pine boards principally — gleamed white with frost. Even the cars were spangled over with crystals as if dropped in the mountain air from the steam. A company of Walapai Indians were grouped about, one a boy with a fragmentary mouth organ, another — a

young mother—making music for her baby with a jewsharp. They were frowsily of head, even more so than their wilder and wondrously primitive congeners of the desert lava regions, amongst whom I had traveled five or six years before;<sup>26</sup> but they were as interesting as their mothly cast-off garments of American make would let them be, at least in the way of ornaments, tattoo and face-painting, of which, with picked up colors, they had been dirtily lavish.

The grade from Prescott Junction to Ash Fork was quite steep; so much so that the climb over the frosty rails delayed my arrival at the latter station quite two hours.

Mr. Hodge, looking as if he had not passed the pleasantest of nights, but cheerful, greeted me, as presently did the Indians and Mr. Garlick. I learned that they had found lodgment in an old and all too cold out-house, where the beds procurable consisted mainly of sacks stuffed with flag leaves and stalks; but arrangements had been made during the morning for their entertainment at a quite well built station house, far back up the slope.

I found that not only had our freight been delayed, but also that Mr. Garlick would have found difficulty in paying for the forage and the entertainment of the party by check, the agent and others at the abandoned freighting post, so to call it (for it had been important in its day just passed), wishing cash with which no chances were connected.

Finding that the expenses were quite heavy—especially for forage and water, all of which, even that for washing and cooking had to be brought in tanks by the Railroad to this point and to Prescott Junction—I determined to have our camping equipage unpacked at once, and the Sibley tent, which was large enough for the entire party, set up before the day was over.<sup>27</sup>

It became necessary first, however, for the large freight wagon and much of the heavier effects to be taken out. Therefore, I set out on horseback with the Indians to find, if possible, grazing ground and water for the animals.

The mules and horses were confined in a large vacant corral south of the railroad. Getting our saddles unpacked we equipped a couple of horses and the Zuni mule, and taking our guns along in the hope of getting game for the camp (fresh meat being scarce) we rode over the hills and then down along the winding valley somewhat to the southeast of our camp.

Although I discovered on somewhat elevated slopes a few worn and very small potsherds, the region seemed, in the main, destitute of ancient remains, whilst showing evidence of having been occupied by at least a semi-settled community

of Indians ages before; their remains seemed to have been to a great extent destroyed.

We were disappointed in our hope of finding water down the little valley we had followed and so turned our horses about and, passing camp, proceeded five or six miles northward. We were most happy in discovering among a lot of lava rocks in a rather steep valley of no great depth, an abundance of water for our purposes. But this water was not only very difficult of access, but exceedingly muddy and foul—so much so that the animals could scarcely be induced, thirsty as they were, to drink of it.

I was very happy to discover at a point where this shallow cañon was joined by a little run quite numerous evidences of what had once been, on the lowland thus made, an ancient pueblo; but nothing of interest was to be obtained from it save by extensive excavation, and even thus I doubted if results at best would very well reward such efforts.

Inasmuch as we had found a watering place, such as it was, and as not at a very great distance therefrom the grazing was good, I left the Indians in charge of the stock in order to save, as much as possible, the purchase of expensive forage at the station, and returned to camp.

During my absence Messrs. Garlick and Hodge had worked with a will, having unloaded the large freight wagon and most of the effects from the first car. And I was happily surprised, also, that our second freight car had been moved in during the morning. We would now therefore be able to unload all of our effects, and as soon as the wagons and buckboards could be put together and loaded, be able to take the road.

During the afternoon, therefore, we attacked the second car, but unfortunately in the heavy lifting that was necessary Mr. Hodge strained his back quite seriously, however not before the main part of the work was done. He was still able to assist in putting together the wagons, and as we all joined hands in this as well as in the other work before night they were already on their wheels and the greater portion of our camp equipage laid out by the side of the track ready for the setting up of a tent and the making of a temporary camp.

Until noon the day had been very bright, though cold and windy. It now grew bleaker, and clouds began to form along the mountain sides, speedily overshadowing us. I therefore had the loose material gathered alongside the track, a space cleared of chaparral to the rear of it, and all of our energies concentrated on pitching a camp there. Before evening we had the Indian-like conical Sibley tent

pitched and one of the funnel-shaped tent stoves set up in it, making for us a cozy retreat in the event even of a severe snow storm, which, as yet, we did not expect. Consequently, the freight well compacted and near at hand was left exposed, although wagon-sheets were laid conveniently by for covering it in case of need.

As night fell the wind became boisterous, shooting in at our door-flap in such way as to stop the draft of the fires and render us anything but comfortable. I therefore hurriedly constructed of wagon-sheets a long hall-way like the entrance-way to an Eskimo snow lodge, with such success that the fire roared like a little furnace and soon warmed the tent, large as it was, to the remotest crannies. The Indians, Mr. Hodge and I (Mr. Garlick remaining dubious had preferred to remain at the station house) soon cooked ourselves a fine little supper, then made down our beds and fell to writing up our memoranda. Mr. Hodge was still lame, and I had been ill more or less all day. Our rest, therefore, was becoming the more welcome when a sudden gale arose and snow began to hiss and rattle against our tight-stretched canvas roof. We must needs run out, ill prepared as we were, and cover the camp luggage out in front. The wind was so fierce and the snow so blinding that this was by no means an easy task, since we had to gather from far and near large stones to hold the canvas covers down. But at last the struggle was over and we crawled back, half frozen, into our snug tent, which held its own against the force of the wind like a gallant ship in a storm. But we were so wearied that we laid ourselves down in our blankets forthwith. I was no sooner asleep than I was aroused by a noise at the entrance, the greater as sleet had formed and frozen to the door curtain, making our bell-shaped lodge resound like a thing of metal. Some one was trying to crawl in. I clutched my pistol and cried out, asking what was wanted, Mr. Hodge evidently doing the same, whilst We-ta was already on the watch, gun in hand, but silent.

The intruder proved to be innocent enough, however, for he shouted "Don't shoot, for God's sake! Only let me get to the fire and warm myself,"—saying which he made straight for the stove. I kindled a fresh fire and set the coffee-pot over to boil. Then we fed the poor fellow some bread and cold meat which he ate ravenously. He was so tired that it was scarcely possible for him to tell his story. I gathered, however, that he was about twenty-four years of age, which his looks did not belie for he was youthful and not unprepossessing in appearance, and wore the remnants of well chosen clothing. He gave his name as Arthur P——, of Montreal; but the less said about that the better, as he had left his home suddenly

“for its good and my own health,” as he explained. He and his companion had worked or stolen their way on the railroad to Winslow, Arizona (where we had dined en route), and there he had hidden himself in a freight-car whilst his fellow had crawled under the cow-catcher of the locomotive to escape detection. The latter had disappeared—had probably perished from the cold, which was intense that night, still more so than here in the mountain section they had crossed.

The language of this young man, though careless, was good, indicating an excellent education and refined surroundings; but his manner was not only desperate but reckless—habitually so, no doubt, and he showed signs of dissipation. One meets such characters in the far Southwest, where, sooner or later, they get killed either by accident, in shooting affrays, or by hanging, or else make the most startling successes in life, founding both fortunes and families thereby, the youthful escapades or graver fault which drove them from civilization, as this young man had been driven, being condoned by time and better behavior.

I told him at any rate to remain under our shelter at least until the morrow, and shared some of my bedding with him, rolling himself up in which he was buried in sleep ere I had put out my candle. Some time toward early morning we were aroused a second time to find that our visitor, probably disturbed by the same general racket about our camp, had hastily made off. On issuing forth we discovered that the moon was shining fitfully through the clouds, the wind had died down, but it was still fearfully cold. By the dim light looming up against the thin snow which had fallen [was] a huge black body which proved to be our pot-bellied mule, afterward known indifferently as “Jack” or “B. B.” He had escaped from the corral, being old and sagacious, and was tugging at the frozen canvas to get at the grain-sacks and bacon, for which latter we found that he had an almost inordinate appetite. Securing him, the sole marauder—since nearly all the other, less innocent looking, had been hobbled or side-lined—we again sought the very cold comfort of our tent, the fire having gone out.

Presently day broke (*Jan. 22d, 1887*) and with the first glint of the sun on our tent a gigantic Chinaman appeared in almost as bad a plight as was our visitor of the night. He carried a great bundle made up in a turkey red quilt, and evidently told the truth in saying that he was fresh from California and wanted to “ketch ’im lide to Plescott.” Forthwith I examined him as to his qualifications as a cook and in other ways. As his response to everything was “All ’ight, me savvy,” I told him he could ride with us to Prescott if he would cook for his transportation.

That was "all 'ight" too, as he instantly demonstrated by pitching some frozen potatoes into a wash basin which, standing near the tent stove had not yet frozen. Then seizing a slab of bacon, equally icy, he essayed to slice it with one of our new and as yet un-sharpened butcher knives. It would not work. With a quick motion he sent the knife whirring into a handy box of canned stuff and plunged his long arm down into the depths of his bed bundle. He stirred about there a moment, presently drawing forth a very long stemmed Chinese pipe (a bundle of tobacco in a rag being tied to it), which he dropped, diving down a second time fishing out a great slasher of a blade—weapon and utensil combined—fully two feet long. With this he went at the slab of bacon very much as a woodman attacks a tree trunk. The result was all that could be wished for, as, under the circumstances, his breakfast proved to be. It was served up to us in short order, and whilst we waited, Mr. Ah Yung lighted his large stemmed and small bowled pipe, helping us to this or that as though he had been our domestic for months. Before we had fairly done, however, dishes were being washed and bread sponged for dinner time, the new domestic eating scraps all through his unperturbed but rapid performance of these functions.

By the time Mr. Hodge and I had comfortably made ready to go forth to continue the unpacking, etc., Ah Yung was off, bread-pan and a cloth full of flour under his arm to "ketch'im by my fliend Chinaman, cook 'im bleed!"

I felt that a great point had been gained in the securing of this sturdy and most resourceful cook, though I did not like his evil eye, for I felt that we could go far toward completing our arrangement for setting forth on the morrow. The extra freight having all come in, the remainder of the unloading was speedily accomplished and the loading of the wagons begun and carried to a most satisfactory point by the time night set in.

When the Indians came in with the mules We-ta brought in a string of seven fine cottontail rabbits which he had shot with his rifle, some of which, then and there, Ah Yung prepared for supper.

Early on the morrow (*Sunday, Jan. 23rd, 1887*) the mules and horses were shod by the old freight blacksmith who still kept his establishment open, doing duty, now that teams were few, on jobs for the railroad, besides attending to such slight duties as his commission as postmaster of Ash Fork demanded.

He worked with a will, as did all of us; so much so that at noon it looked as though we might make a start, which I was most anxious to do for many reasons,

not the least of which was the expense of forage and water. Mr. Hodge and I, therefore, settled all accounts, whilst Mr. Garlick was loading and trailing the buckboards and adjusting (to their own satisfaction) the mules in teams.

By four o'clock, much against the advice of the natives who thought it foolish to leave a "nice comfortable place" like the settlement for the road "at such a time of day," we started out. I led the way on horseback, Mr. Hodge drove the heavier covered buckboard, Mr. Garlick the large wagon loaded to a frightful elevation, and We-ta the lighter buckboard with the Chinaman, whom Si-wa-ti-tsai-lu would have none of and who therefore brought up the rear herding along the extra animals. Our way led westward for a mile or two along a well-worn freight road, then turned into a gradually descending level bottomed valley or cañada which led due southward toward Prescott. Down the road even better worn than the one we had left, and winding from side to side I galloped to gain time for examining mounds or hills where I thought there might be ancient remains, and for seeking out a good camping place against the coming on of night. On the way I saw now and then sherds of pottery greatly wasted, here and there, too, evidences of settlement, indicating, as had the signs already seen when I was out hunting for water and a grazing range, that even here on this bleak and elevated mountain plateau, which could have offered but scant inducement to primitive Pueblo horticulturists, their temporary stations had at least been established in times long past.

Just as the sun began to dip in the far away Colorado plains and dark purpled blue shadows seemed to be growing, almost climbing, up from the broad base of the San Francisco Mountains, I discovered, some four miles down the road, that it made a sharp turn and that it led down a very steep way into a narrow gray rocky cañon, so high-walled and rough that it would be risky to descend with the wagons in the dusk which was rapidly deepening. I turned back to a little low cliff of the same dark gray rock which proved to be a limestone-like volcanic tufa, to where, under its shelter, was an inviting copse of cedars, many of them dead and giving promise of abundant fuel. As the grazing looked good I built a little fire and was about to turn back when in the distance I heard our teams approaching. Ere long they drove in, the mules were unharnessed and given a chance to roll, and forthwith our little shelter of canvas sheets were stretched, a goodly lot of fuel gathered by the Indians, and abundant "labbet stew" and other fare provided by Ah Yung.

After supper we made our beds down whilst Mr. Garlick and the Indians,

lantern in hand, prospected the gorge below, discovering water but finding it difficult to reach in the dark with the mules. After planning for the morrow we laid down, certain of an undisturbed night of rest, at last.

On the following morning (*Monday, Jan. 24, 1887*) we were all up early, refreshed by the first good night's sleep we had had since leaving Wingate, as well as by an excellent breakfast prepared by Ah Yung, our new Chinese cook. Whilst Mr. Garlick and Mr. Hodge were packing the wagons and the Indians were watering the mules at the pool below the cliffs, I discovered, almost at our feet among the scrub cedars near which we had camped, several fragments of characteristic corrugated pottery, and therefore began to explore in the immediate region. On top of the mesa formed by the little bluff nearby, I found not less characteristic traces of ancient occupancy in the way of rude circles and squares of stones lying on the surface here and there, well nigh worn away by exposure to the winds and sandstorms, yet evidently the foundations of huts and scattered houses of a more pretentious kind which formed, ages ago, the homes of a semi-nomadic and probably pre-puebloan people. Occurring on elevated sand hills, especially in eastern Arizona and western New Mexico, such remains, there fortunately far better preserved, are also much more abundant. Associated with them are also almost always to be found extensive granaries made of well shaped slabs of sandstone set on edge and evidently once reinforced with mud plastering or adobe work. I am inclined to believe, with the Zuñis, that many of these remains antedated those of the Pueblos proper, and that they mark the sites of a people from whom, in part—as related in the Zuñi tales of the Pé-i-kwithl-tchu-ná-kwe, “Grass or Dew Drinkers or Swallowers,”—they claim to be descended. No specimens worthy of preservation, however, were found during this hasty reconnaissance, made as it was whilst the teams were being harnessed and the wagons put in order for the day's journey.

But when we had made the very abrupt descent into Ash Fork proper and turned again southward, we discovered, all along the cliff above the pool at which our teams had been watered, which here was high and of a dark gray volcanic tufa, numerous and very beautiful pictographs. These petroglyphs had been so deeply pecked into the rock that they were well preserved. Although they were evidently very ancient, probably dating back to the time of the occupancy of the huts above, yet these pictographs in no wise differed from similar groups occurring in the Zuñi region and especially along the lava beds of the Colorado Chiquito in eastern Arizona. Later on I shall give examples of these, as also of the



remarkably interesting groups occurring still more abundantly near Prescott and farther south. The identity of these petrographs over so wide a region marks important connections and lines of derivation of culture of the Aridian or Pueblo peoples.

It at once became our object, therefore, to collect, in the form of sketches, material of this sort as well as specimens and descriptions of ruins encountered.

Thence onward the road was rough and dusty, and when we had entered into the flatter and wider portions of the valley below, so sandy that our progress was impeded; therefore, although the journey to Sweetwater,<sup>28</sup> where we hoped to be able to find sufficient wood for a comfortable camp, was really not a long one, nearly the whole day was consumed in reaching that point.

Along the greater part of the way I preceded the party,—which took up the line of march much in the order of starting—on horseback. I well remember with what exquisite pleasure I felt the saddle under me, and looked off over the unequal stretches of distance of those southwestern lands, and as I beheld the wonderful mountain scenery to our rear, and the great winding valleys and plains before and alongside us, it seems almost as though we were a little party of Spanish explorers, penetrating, as they did, an unknown region, and likely at any moment to meet with strange men and to see stranger habitations of men. And in some sort this train of thought was well suited to the plan of our explorations, for we began already to feel that with each new turn made or any new valley encountered there might be revealed the remains of such populations and dwelling places. Certainly in this case no less than in the other these would prove in the main unheard of and indeed unknown.

It was late in the day, then, when I found, off to one side of the road, good grazing ground and a little collection of stunted cedars under the brow of a long, rounded headland. There I picked out a site for our camp and returned, first to guide our little caravan to the watering place of the ranch of Sweetwater and then to the favored spot for camping.

It may seem strange that in these journeyings of ours I rarely ever sought to pass the nights at wayside ranches or stations. Long experience in the field has taught me that comforts unknown to the traveler who chooses such resting places could be obtained in little nooks not far from him, and combined with the advantage of such comforts was always the greater one of fresh grazing fields, for the immediate neighborhood of ranches is usually, for obvious reasons, barren and desolate.

We were weary enough and hungry enough, withal, to enjoy the supper we nearly all of us joined in the preparation of, so soon as the Indians returned with a supply of water laden on one of the buckboards. Our rest was undisturbed during the night, either by benighted wayfarers or marauding mules.

Very early the next morning (*Tuesday, Jan. 25, 1887*) I awoke, having in mind the completion of my journey by rail from the station, near Sweetwater, to Prescott. On the train during our trip outward the Indians had told a charming little story about the adventures, in ancient time, of the mice with hawks and other small birds of prey, and in portions of this story, whilst the mice were digging their cellars to escape from the enemy, they were said to have sung a little song, metre, music and rhythm of which were at once so pleasing and amusing that Mr. Hodge had remembered the song and would be heard at quiet moments singing it to himself. For this reason our two Zuñis had given him the name of the opening clause of the song, "*Te-lu-li*"; by that name I summoned him, and he responded with alacrity and soon had the rest of the camp aroused.<sup>29</sup>

After breakfast I left the camp on horseback, going to the station before mentioned in order to catch the morning train. I had arranged to leave my horse there to be picked up by the rest of the party when passing through. Walking up and down the track I waited long for the appearance of the train. The bed of the railroad was by no means inviting to travelers, it having been constructed everywhere above ground through the yielding, dusty sage-plains without even so much as a shovelful of ballast. The approach of the train was announced by a shrill whistle, but it was long after the locomotive came in sight that it drew up to the station. We had not proceeded more than three or four miles before the locomotive left the rails and was hopelessly embedded in the sand. A message by courier had to be sent back to the station when a telegram summoned assistance from below. Meantime, throughout a good portion of the day, we were compelled, fasting, to wait or to assist as best we might in righting matters. Once more, when near the station at Big Chino Valley, we again ran off the track,<sup>30</sup> this time with considerable damage, but beyond a few bruises and sprains none of the passengers were injured. Hence it was extremely late when we steamed into Prescott, where I had some little difficulty in finding the hotel, at which our ladies were stopping, who, having been warned of the dangers of the road, were awaiting in extreme anxiety.

On the arrival of our party the next day (*Weds, Jan. 26, 1887*) in the afternoon, I learned from Mr. Hodge that they had been able to progress only about sixteen miles to the Little Chino Valley where, water being plentiful, they were com-

pelled to camp between three and four o'clock in the evening. Here our new Chinese cook, Ah Yung, became sulky, flinging the dishes and utensils about in such a manner that Mr. Hodge was compelled to administer rebuke to him, he having conceived that in my absence he had no "boss," and could run this part of the expedition as he chose. Although for the time he was somewhat calmed his wrath again arose on the following morning (*Weds., Jan. 26*) on finding that the oatmeal which he had placed close to the fire during the night was frozen, only more, probably, than himself with his scant bedding. On being offered the opportunity of returning to Ash Fork on foot if he did not amend his behavior, he became pacified for the time being, and about three o'clock in the afternoon the party drove into Prescott and under Mr. Garlick's guidance took up quarters at the "O.K. Corral," or feeding yards, kept still by a man named Dougherty.<sup>31</sup> On learning of their arrival, the ladies and I, with our fellow traveler, Mr. B——, paid a visit to them and I proceeded to arrange their accommodation in the best quarters obtainable, which were, from numerable occupancies by freighters, in an extremely disordered and dirty condition. Mr. Garlick and Mr. Hodge, with the aid of the Indians, however, had already made them somewhat fitter for occupancy and were quite well established by the time of our arrival.

On learning of the behavior of Ah Yung, who had proven to be quite a skilled field cook, I reluctantly had to decide upon discharging him, and during the greater part of the rest of the day sought through the Chinese quarters and by inquiry of various acquaintances in Prescott for a new cook, but failed to find anyone willing to undertake so long a journey.

While in Prescott during this and the succeeding two or three days, although very busy with preparations for our southern trip, I nevertheless succeeded in finding time to visit some places of remarkable interest I had seen and somewhat carefully examined during the summer of 1880 during my return from a trip to Cataract Canyon and a visit with my Indians to the Havasupai or Coconino Indians living there.<sup>32</sup> Of these places perhaps the two most remarkable are those lying about the base and on one of the shelves of Thumb Butte, a magnificent elevated lava mountain landmark lying westward from Prescott, and an almost equally high black mesa known as Granite Mountain, nearly two miles eastward [westward] from the town. At the first of these places I found a very large, well situated rectangular fortification, one side of which actually had been built up on the sloping rock to form a terrace for the accommodation of the walls of protection and houses enclosed by them. There were here to be seen in many

places extremely interesting though small groups of petrographs, some examples of which I give herein, but by far the most remarkable ancient work in the neighborhood of Prescott occurs on the mesa before mentioned.

Cutting this mesa into three parts—at least so it seems to the beholder from below—two cañons occur, between which rises a lava promontory to a height of nearly three hundred feet. The place is reached by scaling huge angular blocks of lava which slope nearly up to the edge of the cliff. Here and there all through these rocks and farther on at the base of them, covering scattered boulders, are petrographs, some of them amongst the most remarkable I have ever examined. Figures of a number of these will also be presented farther on and interpretations of their symbolic meanings given.<sup>33</sup>

My examinations could not, unfortunately, be carried far enough to include a knowledge of the entire field; but since these petrographs partake of the nature of ritual records, or as one might say, were made to serve the purpose of perpetuated prayers, they are of the utmost importance for study.

Ascending to the brow of the headland I have described, one comes upon an almost level but apparently sunken and ingeniously enclosed area. It is found that the cliff, which seems from below level, appears greatly heightened by an almost cyclopean wall extending along the two most exposed sides of the promontory. This wall, although composed of unwrought blocks of lava, is built with such consummate skill and so massively by means of selecting and fitting together the blocks of lava in each course that it appears as if built up of carefully fashioned material, and endures in an almost perfect state to this day. The wall was perfectly level on top and so wide or thick that four, if not five horsemen might ride abreast along almost its entire length. The space enclosed was greater than that of any similar fortification or stone corral previously seen by me; yet the remains of houses inside were not more perfect or of a higher order of architecture than those of less constructed places of the kind. The fortification, or possibly corral—as I found later reason for supposing—was filled near one end only with these remains of houses, some circular, some rudely parallelogramic, and some where several round houses were clustered or crowded together plainly indicating the evolution of the square house structural type in pueblo architecture.<sup>34</sup>

Neither on this occasion nor at the time of my former visit was I able to make measurements of this place, as I had for companions, officers who were compelled to return to their duties at the military post. Nevertheless I give, from the rough sketch made by me and from memory, a plan, in outline, of this remarkable work,

designed rather to convey some fuller idea of its nature than to give accuracy to the foregoing description.<sup>35</sup>

But to return to our more regular occupations in outfitting. On Thursday (*Jan. 27, 1887*), the morning following the arrival of the party at the corral, I went down early and finding that our transportation outfit was too limited for the material we had and contemplated having on our future journeying, arranged to furnish a large Shuttler wagon which, with our other wagon Mr. Garlick immediately proceeded to fit up, being master of many crafts, with platforms on either side for the support of water barrels which we also purchased. From a model furnished by Mr. Garlick of the camp grates or so-called "tarantulas" used by the United States Geological Survey parties, I had a blacksmith proceed at once to make such a grate, and to fashion for me a saddle knife which, ere it was finished, had been named by the ladies the "blade of Arizona," and which served us well in many a time of need thereafter.

By means of the letters to the officers of Fort Whipple, with which I was favored, I was enabled, especially through the courtesy of Lieutenant Robertson,<sup>36</sup> Quartermaster, and Lieut. Smith, Commissary, of that post, to make large and greatly needed additions to our outfit.

The last, though not the least, addition to our outfit must be mentioned, for without a word in regard to our poor, forlorn Burgess the narrative of our brief stay in, at that time, Arizona's capital, and of the few weeks following, would not be complete.<sup>37</sup>

While endeavoring to obtain the services of a Chinese cook, I was also constantly on the *qui vive* for a man who could serve as teamster, at least, if not, indeed, a man-of-all-work during our southward journey; but in this I was unsuccessful as in my attempt to employ a cook. On the evening prior to our departure from Prescott, however, there appeared at the corral camp, so Mr. Hodge informed me the next morning, an unshaven, bareheaded, and apparently homeless and friendless man of about forty, evidently of Irish extraction, in whose leather-colored features was depicted the tale of a long and hard struggle against misfortune in an unkind land. Burgess, strangely enough, had no grievances to relate; he merely wanted to join our party and continue as far as Phoenix, and in return for his assistance during the journey was willing to do anything asked of him. The poor fellow was immediately engaged upon his own terms and worked with a will until he learned that ladies formed a part of our little expedition, when he immediately requested an hour's leave, which he was granted. Upon the ex-

piration of that time he returned to the corral — not the same shaggy, betattered, and begrimed Burgess we knew such a short time before, but resplendent in a brand new but ill-fitting “store suit,” a hat proportionately as much too small as his trousers were too large, and with shoes that would better have suited a man three times his size. Burgess was radiant with anticipation, though [in] all our months of acquaintance Burgess was never known to smile. As a worker our new acquisition did not prove a success; and although he was the author of a chapter of accidents and consumed more of our commissaries than the rest of the party together, we never regretted that Burgess joined the expedition.

By Sunday preparations had been well nigh completed for the journey, but supplies, in the way of provisions and forage remained yet to be obtained from the Fort ere we could set forth. We were, therefore, compelled to delay our start until the following morning (*Monday, Jan. 31, 1887*).

Our caravan, unformed as yet owing to the necessity of collecting our somewhat scattered party, was quite as attenuated and irregular as when on the line of march from Ash Fork, but what with the new wagon, much more imposing. It was necessary to make a detour to Whipple Barracks in order to produce the remainder of our camp supplies, provisions and forage, and to bid farewell particularly to Lieutenants Robertson and Smith, through whose courtesies and cooperation we had gained such substantial addition to our traveling outfittings.

The order we took on leaving the barracks was as follows: I journeyed on horseback, sometimes going ahead, sometimes falling to the rear; Mr. Hodge led the way of the vehicles with the covered buckboard in which the ladies drove and which was comparatively lightly laden, simply the smaller camp appliances being stored in its boot. He was followed by Mr. Garlick with the Newton freight wagon, piled high with forage and tenting, and by Burgess, our new recruit, in the equally new and overloaded Shuttler wagon, whilst the rear was brought up by Si-wai-ti-tsai-lu in the open buckboard groaning with such store as would not be safe in the heavier wagons, and finally by We-ta driving extra mules.

Our appearance along the settled portion of the road at least excited abundant mirth, as was not unnatural. The surmise that we were a “circus” or “menagerie outfit,” with which Mr. Hodge had been greeted on the arrival of the party at the O. K. Yards, was now quite frequently repeated.

We soon turned from this road, however, which led eastward to Camp Verde, into one of the several branch roads trending southward and converging in the well known route through Black Cañon from Prescott to Phoenix.<sup>38</sup>

Aside from the grand scenery of every road along this way, too beautiful and too constant for description in an unpretentious record, I recall two spectacles of unusual interest—the one, great flocks of sluggish and comparatively tame buzzards sitting on the corral stakes surrounding the slaughter house a few miles out from Prescott, which got me garrulous supplies of folklore regarding the vulture kind told at later camp firesides by our two Indians. Then, farther on, when the way began to grow wild and steep through a network of mountain valleys, off to one side the abandoned works, all still in excellent condition, of a gold mine, near the base of one of the high hills, which practically bespoke the beginnings of such desertions and desolations as we were faring forth to learn the ends.

We had proceeded thus perhaps two or three miles when I joined Mr. Hodge and the ladies at the base of a foothill, which in any other locality would have been called a mountain. Our vehicle, being so much lighter than the others, had left them far behind. I therefore decided that whilst the mules were resting before ascending this steep grade I would ride over the crest and down into the valley beyond in order to seek a comfortable camping place. A very excellent site was soon found amongst some scrub oaks under a protecting cliff, but when I returned to the buckboard the wagons were nowhere within hearing or sight. Mr. Hodge proposed, therefore, to mount my horse and return in order to guide them to the camping place I had selected, whilst I, taking his place drove on. He retraced the way, and reaching a higher summit we had just passed descried in the distance the whole party following an entirely different road. Going across country he came up with Mr. Garlick and explained to him that he was following the wrong road; but the latter had been informed by a traveler that the course he had taken was the one we were following. It was determined, therefore, that Mr. Garlick should continue down the more level road he had chosen to where, apparently, it united [with] ours four or five miles farther. When Mr. Hodge returned it was already growing dark and very cold; so much so that we had been forced to halt and build a brush fire. We now, however, determined to keep on until we should reach the first station, called Agua Fria. It was so late when, with our jaded and unwilling mules, we reached this station, we were forced to choose our camping place in the corral of the station owned by a very accommodating ranchman from Kansas, named Thomas.<sup>39</sup> Ere long we were joined there by Mr. Garlick and the rest of the party, and at once proceeded by the light of the fire we had kindled and a lantern borrowed for the occasion, to pitch a little A-tent for the ladies and to prepare supper. But alas! it was now discovered that

the meat, which had been packed in the buckboard, had been lost, much to the consternation of that untrained driver. He and We-ta immediately volunteered to go back and search for it. It was thus very late when we at last were able to retire, and for a long time afterward Mr. Hodge and I, building a great campfire of logs from the Thomas wood pile, in true Indian fashion settled ourselves for a talk of plans for the future.

Notwithstanding the shortness of our night's rest, we were awakened very early Tuesday morning (*February 1, 1887*) by the Indians and all took part in preparing for breakfast and in fitting the wagons out for our further journey. Nevertheless this being our first full camp, if the corral of Thomas' ranch may be so called, we did not succeed in getting under way until nearly noon. Still we made excellent progress over a good road which during the first five miles gradually descended and then led over a steep but rounded knoll or headland that projected far down into the valley, and near the summit of which was established a little way station. Whilst the animals were being watered there I sought about and on the end of this knoll had the happiness of finding the first evidence of a typical small-room stone-building pueblo. Although little remained of it, it was of interest as indicating how far south this type, almost universally prevalent farther to the north, extended, and how apparently universal this southern extension of such structures was in comparatively insignificant valleys, no less than in such well watered and important lines of settlement as for example, the cañon of the Verde.

Toward evening we came to a beautiful meadow-like cañada in the valley of Big Bug Creek (which mainly the road now followed), and there off to the left saw unoccupied, yet apparently near water, a magnificent grove of gigantic cottonwoods, the shade of which, falling on a short, carpet-like growth of turf, was wonderfully inviting to us, for already we were beginning to feel the warmth, almost the sultriness, of the southern Arizona sun. We therefore drove aside from the road, and with more leisure than usual ere dark came on, made a camp no less picturesque than comfortable.

Rising up from this level, plain-like valley, fringed at its uttermost eastern side by the rows of great cottonwoods which sheltered us, were high and sharp mountains of tufa, lava and loose soil, scant of vegetation save of the sage and greasewood bushes and low-growing cacti. In and out amongst the chapparal and rocks, however, ran hundreds of quail, singing and calling to one another, more softly but for all that wonderfully like fowls in the east in springtime, and



like the springtime it seemed down there in that little valley. Therefore, whilst Mr. Hodge, who had begun gradually and very kindly to assume charge of our culinary department, was managing our supper-getting, the Indians and I, hearing among the low sage and greasewood shrubs across the crooked little creek we found there, the piping of hundreds of quail, went out to hunt for some and succeeded very shortly for a prospective breakfast.

We gathered an abundance of cottonwood for our campfire, for as the night deepened it grew rapidly cold, and all retired early. We slept soundly, the most of us, but in the small hours of the night much loud and exclamatory talk of a particular Arizonan flavor in the voice of Mr. Garlick, together with the excited tramping of mules, announced considerable disturbance and we discovered that the most ill-conditioned but otherwise excellent mule in our herd, "The Red," as we called her, had untied the halter-strap with her teeth and escaped, and that the others were struggling vainly to follow her.

When morning came (*Wednesday, Feb. 2, 1887*) it became necessary to send the Indians back as fast as possible to trail and overtake "The Red." As hours passed by and they did not return, and as I found the grazing, water, and camping conveniences so excellent, I decided that we would remain over the day in order to make some already needed repairs and to rest the animals as well as ourselves. During the morning Miss Magill made a charming little water-color sketch of our camp, a pen drawing of which she has kindly perfected for my journal;<sup>40</sup> and later in the day she, with Mr. Hodge and myself, went out with our bows and arrows for some archery practice as well as to seek for ancient remains or pictographs. On the mountain slopes nothing of archaeological interest was found, but near the camp, close to the edge of the little arroya beside which we were camped, we found a large hoe blade, formed from a flat diorite pebble chipped to a rude semi-lunar edge and indicating in itself *considerable* and probably permanent occupancy in former times of the valley of at least a *limited* pueblo population.

Unfortunately during the latter portion of the day I was extremely ill and could not follow up this indication. At near dinner time the Indians returned with the missing mules. As night came on we made preparations for an early start, packing as much as was possible of our camp equipage and rearranging our loads.

In the early morning (*Thursday, Feb. 3, 1887*) I was better of my attack of illness and by sunrise all were at work preparing breakfast and making ready for an early start; but in this we were again balked by complications amongst the

mules and other minor accidents so that we did not succeed in taking the road until nearly one o'clock.

Although our way led through a waterless and almost desert region, the scenery was the grandest in some respects one might ever see; for not long after leaving the little valley where we had rested and camped, we pursued our way through a less steep but more rugged range of mountains than those in the neighborhood of Prescott. In some respects this day's journey was one of the most remarkable I have ever experienced, for toward the middle of the afternoon we climbed a steep grade and passing over its lofty crest looked down an equally steep descent of hundreds of feet into a narrow and, as it were, bending cañon way. Sheer up from the sides of this cañon were little mountains, *so to speak*, bearing on their shoulders littler ones, until the sloping wall of summits seemed to reach a blue and, just here, perfect summer sky; for as we descended all along the way vegetation assumed a semi-tropical appearance.<sup>41</sup> Here grew to the right and to the left the giant cactus or saguaro, often even here in its northern habitat reaching a height of from twelve to fifteen feet and a thickness of trunk of two feet or more. Alongside of them grew the brilliantly green opatea, which I was fain to call the "candlestick cactus," for often one might see a tree of it growing almost as flat in the free air as though it had been one of the fig trees in southern England, trained up against a wall, spreading its branches upward and outward; yet after all nothing so much calls it to mind, so far as form is concerned, as the pictured plumage of the bird of paradise.

All the way down this wonderful narrow valley we could not cease exclaiming at the strange appearance of this new and summer-like region, and our Indian companions were simply overwhelmed at what they were inclined to believe was the gateway leading down to the land of everlasting summer.

Just before we entered a broader plain-like valley, totally different from the one we had left in the morning in being absolutely barren save for heavy growths of greasewood bushes, palo verde, and catsclaw trees, as they are locally called, I turned shortly into a little descending cañon in order to get a shot at a cottontail with which to replenish our evening larder, and although I missed the rabbit I was fortunate enough to see two or three petroglyphs in no wise different in general character from those heretofore referred to.

Down near the lower end of this yellow soiled valley was the post station and ranch of Bumble Bee, kept by a seemingly solitary but energetic frontierswoman

named Snyder.<sup>42</sup> There was little enough of wood and positively no grazing for the animals, and such wood as I could purchase from Mrs. Snyder was very green, so after our hard journey and our harder work at preparations for the evening meal and for the night, there was little inclination for further exploring.

When we awoke in the morning (*Friday, February 4, 1887*) we were surprised to find, in the midst of all this semblance of the tropics, our blankets stiff with frozen dew and frost, and as we were very early moving about we suffered not a little and had great difficulty, moreover, in getting our fires started.

Our road led down through Black Cañon, along a far more rugged but not less beautiful way than the one we had just passed. Often the grades were so steep that it was often impossible, even with brakes, to keep the buckboards from forcing the mules into an unsafe trot, and it was necessary with the heavier wagons to chain the wheels as well as to apply the brakes. At one of the sheerest and longest descents Burgess, who had fallen somewhat behind, failed to take any precaution of this sort and was making ready to descend a road which would have led to his own destruction as well as that of the mules, the wagon and its entire contents, just as Mr. Garlick, stopping to readjust something about his own load, observed him.

Toward evening we came to a somewhat wide, sandy plain, yet still covered with groves of greasewood, a little palo verde and mesquite trees, through which, at right angles to our course, led a run called Squaw Creek. Seeing far off to the right along the course of this stream two cottonwoods, we hoped to find here water, and determined, therefore, to camp.

When we reached the bed of the creek we found it dry, but with a clean and level sandy floor for our tents and other canvas. As our animals were all very tired and as we did not deem it prudent to try to pass other slopes beyond, we made our camp on this stretch of sand, and seeking half a mile or so down the stream-bed found abundant water in which, to the unbounded surprise of our Indians, especially of We-ta, were fish of considerable size.

After supper Mr. Garlick and I sat with the rest in the clear skylight telling of various experiences, which this place suggested or reminded us of, how, in these mountainous regions, a dry arroya or stream-bed like this would, on the sudden breaking of a storm higher up, be filled to overflowing with a perfectly resistless current. Never dreaming that a storm could so suddenly arise in that very locality, yet we took the precaution to have nearly all of the wagons placed on the farther bank of the creek, which proved well, for at about three o'clock in the morning I



Figure G. Eylar Ranch in 1887, looking northwest (courtesy of the Phoenix Museum of History)

was awakened by heavy raindrops on our tent, so aroused all hands to prepare as speedily as possible our breakfast, pack and be off, since I knew that in the course of two or three hours the place which was now so dry and comfortable would be the scene of a mighty torrent bearing trees and rocks alike along its course.

In consequence of this enforced early start we made most excellent progress, notwithstanding the fact that the roads were dusty and sandy, and that the weather proved quite sultry. The scenery along the way was still beautiful, though less grand and attractive than that through which we had passed. But the gigantic cacti grew larger and larger as we fared southward, standing like specters off to either side, and seeming like great trees bereft of their branches and leaves by lightnings and storms. All these new features were of ever increasing interest to our Indians, as indeed to ourselves.

Occasionally faint traces of what I recognized to be evidences of primitive occupancy were seen, but it was only toward the close of the day, when we were nearing the station called Eylar Ranch [fig. G],<sup>43</sup> and approaching a huge headland of porous lava, that these evidences became more decided.

Halting with the ladies near the base of this cliff, where the road turned to encircle it, and led down into the narrower valley of New River, I discovered several

very small caves, one of which, at least, showed signs of primitive use in the smoke stain at its mouth, but which, marching as we were, it was impossible to pause to examine carefully, the more as on approaching them we found that some had been burned out whilst others were filled with cholla and other cactus spines collected by wood-rats, which are numerous in such places everywhere throughout this section of country.

I also found two or three pictographs on the rocks near the base of this hill, but having been made on a comparatively soft rock it was impossible to trace their forms.

It was not later than between three and four o'clock when, turning into the valley of New River, we saw before us abundant groves of cottonwoods fringing the banks of this streamlet, called, as is always the case with any flowing water in the semi-desert Southwest, a "river," and off a little to the right side lay under low but protecting cliffs, fairly set in natural greenery, a beautiful ranch belonging to some very pleasant eastern gentlemen, Messrs. Alkire and Singleton.<sup>44</sup>

On arriving at their ranch and bespeaking them to a favorable spot for camping, I found happily that I was already quite well known to them by repute, and we were speedily directed to a delightful spot just below their ranch and upon the banks of the stream under a high mesa of the same soft volcanic rock to which we have referred.

There were clouds gathering and rain threatened; therefore, having abundant time before dark we prepared our camp with unusual care, setting up and partially banking two of the wall-tents as well as lesser shelters. During the night it rained heavily.

In consequence of this heavy shower and of the condition of the roads, which I expected would result of it, as well as from the interesting appearance of some, at least, of the surrounding country, archaeologically speaking, I decided in the morning (*Sunday, Feb. 6 1887*) at any rate to halt until the afternoon.

I was confirmed in this decision by the still threatening conditions of the weather and by the urgent and hospitable entreaties of our neighbors, Mr. Alkire, his mother and brother [George], and Mr. Singleton, who reinforced their invitations by information regarding various ancient remains in the neighborhood. Arrangements were at once made for my visiting, under the guidance of Mr. Alkire, some hill fortifications or ruins four or five miles to the east, in what seemed to be a tributary valley.

On this quest we were off at an early hour, followed by We-ta, on white "Billy,"

gun in hand with an eye to the hunt, as was always his case, and almost as much interested in the archaeological prospects as myself, for here he imagined would possibly begin the finding of the traces of the "lost others," with which idea he had been so fully impressed by the priests of Zuñi.

Passing through a very rough country—valleys with somewhat wide, deep-soiled bottoms, but deeply cut by arroyos, at last reaching, amongst several, a particularly isolated mesa, or more properly cerrito, along the crest of which, even before we ascended, I could trace the walls of lava not very unlike those of the fortifications or corrals in the neighborhood of Prescott. On climbing to the top of this butte, I found that it was entirely covered by an ancient pueblo, a part of which seemed to combine the corral and town features in being possessed of compacted and fairly well built little square house-rooms, but lying about them structures of the round type, to which I have before alluded. Fragments of pottery were quite abundant but extremely small. Although sherds of painted ware occurred amongst them, these were comparatively rare and never of more than two colors, the favorites being black or reddish brown decorations on a red slip ground. Many very small, rather rough examples of corrugated ware were to be seen, extremely weathered. By far the most interesting specimen observed was a finely formed and superbly finished gigantic metate of hard black lava. When first seen it was lying in place near the corner of one of the rooms, where undoubtedly, if one might judge by the wear, it had been used thousands of times in preparing the daily meals of corn and grass seed. There did not seem to be a gradation of these milling stones from finer to coarser, as in most ruins both to the north and south of this; still, possibly further searching would have revealed such special types of the metate. I had the happiness of finding in another room, some feet away, the mano or muller stone belonging to this particular specimen, but as the latter weighed many pounds it was impossible for us to transport it from its resting place without greatly delaying the march of our Expedition. Here, as in other ruins and fortification sites examined whilst we were on the march, I made but scant plans or observations, and again the sketch outline which accompanies this description is designed rather to show more the nature of the relics than to make claim of accuracy in detail or proportion.<sup>45</sup>

A feature of unusual interest was observable in this structure, in that the part of it set aside for residence, which contained the greatest number of rooms, was situated on the highest portion of the butte, was walled in by itself (see *a* in plan),<sup>46</sup> yet the outer walls enclosing this portion were extended down to a considerably

lower level occupied by a natural terrace to the rear of this more elevated portion. These walls enclosed quite an extensive and almost rectangular space, artificially terraced like the gardens of Zuñi, and doubtless once serving a similar purpose. The upper terrace was occupied by round hut foundations, but the lower space was left free, and in an extreme corner there was evidence that it had been used not less, possibly, for ceremonial purposes than as a gathering place for stone and perhaps pottery working.

Judging from the appearance of distant headlands visible from this there must be a considerable group or else a long line of artificial fortifications or strongholds as this. But a feature of them all, if I may judge from those afterward examined on the lower course of New River, and in Cañon Diablo and other localities, was the presence of outlying walls or enclosures which apparently could have served no other purpose than that of corrals. Sometimes, indeed, these works consisted of such structures, the area occupied by houses being extremely limited and grouped in the one end or one corner of them. Mr. Alkire informed me later that this surmise was correct insofar that there were no fewer than five or six localities occupied by similar works.<sup>47</sup>

When in the afternoon we returned from this reconnaissance we discovered that the people of Eylar Ranch had been extremely hospitable, and taking advantage of their kindness our ladies had replenished our rapidly diminishing supply of bread by baking in their range a full bushel of biscuits and other edibles.

I had intended during the afternoon to explore still more fully the surrounding region, but rain again fell, rendering it necessary for us to remain close in camp, until toward evening it was possible for us to climb an extremely steep and high neighboring mesa and search on foot for ancient remains.<sup>48</sup> In this lesser trip nearly the whole party, including the ladies, and Mr. Garlick, joined us. Here potsherds at once attracted our attention on reaching the top, rude like those of the fortification I have described, and nearly, if not quite all of them, undecorated. Traces were found in many directions and covering a considerable area, of the foundations of round buildings which seemed to have been more in the nature of towers than of huts, for scant signs of continuous occupation were to be found nowhere amongst them. Undoubtedly, could we have excavated these interesting circular remains we could have made quite rich finds, for I came to regard them as places of burial rather than as habitations, and inferred that ancient mortuary remains, not only in the way of skeletons, but of articles sacrificed with the dead, would be discovered.

I shall have occasion, later on, when describing and commenting upon finds of a similar nature, to refer more in detail to these ruins and their apparent significance.

After returning from our reconaissance of the mesa, barely escaping from the heavy shower which fell just as we were about to descend in the very rapidly gathering darkness, but, falling in torrents elsewhere, kindly sparing us, we found the camp in a somewhat demoralized condition. Mr. Garlick and Burgess had prepared and eaten their supper, and turning in to get out of the rain had left the fire to burn nearly out. I was so severely ill that I had to lie down and found it impossible to leave my tent during the rest of the evening. But the ladies, with Mr. Hodge's ready assistance, ere long had their little supper prepared and then came in to play at games as well as to talk over with me the day's explorations and adventures, and thus a good part of the night was whiled away, for at times the rain fell so furiously as to make us somewhat nervous regarding the depths of the night yet to be lived through. Toward morning, however, the storm abated somewhat and the clouds began to break away. My attack of illness grew less severe and we were able to snatch a little quiet rest before morning.

On awaking a little late (*Monday, Feb. 6, 1887*) we were all delighted to find the sky beautifully clear and the sun shining everywhere on glistening raindrops on the foliage. We were but fairly astir when Mr. Alkire, his brother, and Mr. Singleton came over, intent to see us well on our way, in case they could not induce us to stay over and carry our reconaissance into other neighboring ruins. Later came Mrs. Alkire, who had been so kind to the ladies during our short stay, and even now on her farewell visit brought various dainties for the day's journey. Not only because these people of Eylar Ranch were so pleasant and were, withal, so cultivated, but also on account of the evident richness of the adjacent country in archaologic ways, I was loath to proceed. The Indians, We-ta especially, were captivated by the horsemanship, fine appearance and marksmanship of our friends, becoming great admirers of them. One of them having referred to a deer trail seen on the day preceding, We-ta no sooner learned of it than he was off on the little "Zuñi" mule to ascertain in what direction it led. Whilst our friends, equipped as they were for hunting along the way, awaited his return and Miss Magill was sketching camp and the wagons were being loaded and lashed for the journey, I left, arranging to rejoin the party shortly on horseback to explore the low but quite extensive mesa across the river. It was covered with yellow soil, overlain very thickly with dark brown and black volcanic pebbles, and completely



overgrown in many places with low-growing catsclaw, palo verde, and not a few cacti among them. Quails by the hundred, and wild doves almost equally numerous; lizards and even wood-rats abounded, together with lesser creatures; whilst I observed, as I crossed the stream, evidence of small swimming animals, possibly muskrats. But more interesting than all these were the comparatively abundant though almost wholly destroyed relics and other traces of ancient remains all over this mesa, which, indicating to me richer places farther back from the river, probably on either side, made our departure still more to be regretted.

On rejoining the party just as they were leaving camp I found that We-ta had returned to communicate, as well as he could by gesture, an exciting story of prospects of sport ahead, and with him Messrs. Singleton and Alkire had departed far off on the low plains less thickly overgrown than on the mesa I have just described, but very far reaching, I could see the clouds of dust raised by their galloping horses. Farther on Mr. Singleton returned to the road and begged me to join them, which I did, arranging to come up to the party at a point where the road entered a pass between volcanic outcrops down toward the apparent end of the plain. For this reason the ladies, with Mr. Hodge, in the buckboard, followed the wagons today, intending to await us in case we were delayed in reaching them at the point mentioned. I set off, more for the intention of searching for ancient remains than of hunting, and not a few of these I discovered of more or less indefinite nature. But when at last we reached the group of lava rocks, there I found quite far out in the plain where a few of them cropped up, a considerable number of petroglyphs, amongst which perhaps the most conspicuous were the spiral markings and radiating sun circles and lightning zigzags, examples of which are given below.<sup>49</sup>

Farther on toward the pass—if we may term it such, for on nearing it we found it was quite wide—arose two promontories in advance toward the road, as it were, over others increasingly numerous, especially to the left. The one on the left side was quite prominent for its isolation, was less, perhaps, than a hundred feet high. Along its base, nevertheless, occurred other pictographs and a few very small fragments of pottery like those of the mesa examined near Eylar Ranch. In the valley between these promontories I found the buckboard waiting, and that Mr. Hodge and Miss Magill had ascended the high and rather abrupt promontory to the left. When they returned the former reported to me that they had discovered there a fortification or corral of loose rocks similar to the one I have

already described, and Miss Magill had, as usual, diligently applied her pencil and brush.

It was possible for the party to pause long enough for a more thorough examination of these remains, but on passing around the base of lava hills a little farther down, I discovered three or four quite distinct house sites, just outside the fallen rocks of the promontory, of the round-house type, whilst very small potsherds and fragments of polishing stones and chipped implements were more or less numerous.

Our way for the rest of the day led through a widening plain or valley, completely desert in character although not undiversified by groves of low mesquite trees and the ever present sage and grease-wood bushes, and set in the midst of a landscape filled in with distant mountain scenes less grand but not less beautiful than those we had passed through during the last days' journeys.

Our friends having bidden us good bye at the pass, we made the best speed possible through the heavy roads until toward evening we came in sight, off to the left a mile or more, of a long range of low trees, amongst them cottonwoods. Thinking that possibly as a contribution of the recent rain we might find water in this run, we bore off toward it and camped in a beautiful spot on the level plain, with bushes all around us, having made a journey of about eighteen miles despite the difficult roads. As we set up our shelter the sun went down, shedding over the scene a dusky red light which was almost immediately invaded from the east by light of a whiter and strangely spectral hue from a great clear moon which had fully risen before the sun had disappeared. We were compelled to make a dry camp here and were in fear for a moment of having to prepare supper and pass the night with only scant fuel. But presently the Indians disappeared and soon returned struggling through the bushes with great backloads of dry branches which they had gathered from the stream bed beyond.<sup>50</sup> Whilst a fire of these was being kindled and supper prepared, I rode over to this stream bed, guided by the Indians and followed by Mr. Garlick with the buckboard, to see if, perchance, water might be discovered and to bring in more wood, abundance of which as drift the Indians reported having seen there. We succeeded in getting a supply of the latter, but no water. Yet one feature struck me as interesting—seemingly a long, artificial waterway, but faintly marked on the surface of the plain, to be sure, still evidencing having been of great depth and width at one time. Later studies of this region established the correctness of my surmise and revealed the existence,

all around about among the hills, of numerous remains of the character I have mentioned.

The night was one of the most perfect we have ever seen—mildly cool, still, and so brightly yet withal softly illuminated by the moonlight, that it seemed no longer a world of our day but a world of far ancient times toward which one's dreams ever were turned. And as if to perfectly blend our intrusion on this ancient scene, the champing of the mules on their dry fodder was constantly interrupted by the sounds of howling coyotes all around us. I recall that I sank to sleep that night with a feeling of great hopefulness for our future, based upon these few but really significant observations of the last three or four days; and I looked eagerly forward, as I think all of us did, to our entrance into the brighter and archaeologically richer plains of the valley of the Salado, of which in our camp we had already gained distant faint glimpses.

And so anxious to press on through this "Thirty-mile Desert" and to bring our mules to water as speedily as might be, we arose at a very early hour on the following morning (*Tuesday, February 7, 1887*) and prepared our scant and rather unpretentious breakfast of bacon, bread remnants, rabbit stew—"well irrigated," as Mr. Hodge remarked—and coffee, making up in strength for the scantiness of our water supply. Upon all this, however, I was compelled as usual, to look rather ruefully, not partaking. Such ruefulness, however, was quite forgotten by nine o'clock, when we were well under way.

The sloping plain lying before us, although still desert, looked beautiful and inviting in the morning sunlight, and I anticipated more or less rich finds among the bluffs that arose here and there on each side of the road and particularly farther on, so invited Miss Magill to join me in a horseback trip of detours along the way. Unfortunately in mounting "Douglas," who was somewhat restless, Miss Magill was lifted up by her stirrup foot too energetically by Mr. Garlick and her knee was badly sprained; but bravely combatting the pain, she insisted upon accompanying me and we were rewarded farther on by traces of fortification among the lava hills, and, of course, on the escarping rocks of them, pictographs.

As we journeyed on, the mesas off to the left three or four miles looked very tempting to antiquarian eyes; but putting aside thought of exploring them until some future time, we hurried on until, a little after noon, we reached the newly constructed Arizona Canal.<sup>51</sup> Just before reaching it I discovered to the north more signs of artificial water-ways—signs so evident that I could no longer doubt that those I had before observed were traces of important aboriginal irrigating works,

and especially as I later learned that this canal had been run along the line of more ancient canals. The Arizona Canal runs close to the northern edge of the Salado valley, turning to include much of the plain lands of the valley of which we were descending.

After we had watered our animals, which was for the first time since leaving New River, we crossed the canal and continued our journey along a straight, wide road, and then was revealed in the distance before us a wonderful scene to desert wayfarers, for no longer were the stretches of earth before us barren and bush-covered, but off in the distance great green fields, everywhere apparently overgrown with tall, white-armed cottonwood trees just beginning to turn green and reminding one of descriptions and paintings of spring landscapes in Holland, especially of some of Boughton's dainty water-colors of such scenes,<sup>52</sup> a resemblance which was heightened by little dykes or irrigating canals on either side of the road along our way. And thus out from amongst the mountains and plains of a land of winter and desolation (for behind us the distant high peaks were still gleaming with snow) we were nearing, in the environs of Phoenix city, so called, a veritable oasis, made less by nature than by the hands of men.<sup>53</sup>

Just as we were approaching the ranches outlying we were again joined by Mr. Alkire, who volunteered to guide us to the corral, nearer town, of an acquaintance who would furnish us with a camping spot, firewood, and forage for our animals, and forthwith led us on a mile or two farther to the ample corrals, but tumble-down, low-lying adobe ranch of a Mr. Osborn,<sup>54</sup> on whose premises huge stacks of alfalfa and other hay set us at ease in the matter of supplies for our teams. We were also pleased for ourselves, and thought that we were quite appropriately welcomed by a sign, tacked to one of the corral posts, of "Honey for Sale."

Finding that we could make suitable arrangements with Mr. Osborn, who had butter, eggs, and no end of other ordinary delicacies for sale, we turned in and disposed of the wagons for a prospective camp. Messrs. Garlick and Hodge, with Burgess and the Indians, immediately set at work to pitch the Sibley tent; whilst in the covered buckboard, lightened of its load and drawn by four mules, the ladies and I proceeded into town in order to produce bread, meat, and other supplies and to get our mail and advices from the home branch of the Expedition, which we had been so long and anxiously awaiting.

A most marvelous town did this Phoenix seem to us when first we entered it through the long straight road that led down from the Arizona Canal. Gigantic cottonwood trees grew everywhere along all the streets of the town, their buds

already green and bursting, whilst in many of the really beautiful gardens surrounding the homes outside the business squares of the city we could see growing and green fig trees and olives, small palms, Mexican pepper trees, and even here and there, as I was told, date palms. These were all strangely blended with peach, apple and apricot trees, their buds already swelling and turning rosy, and not less strangely blended was the rather pretentious new American architecture and the characteristic, always picturesque, new adobe buildings of the Mexican type. More curious than all these, however, the assemblage of tropical and subtropical vegetation, the mingling of curious architectures, and the canal-fed roadsides with their huge overreaching trees, were the inhabitants themselves. A more cosmopolitan population could not be found, it seems to me, in all of America; for here were met along every square swarthy Mexicans; well-dressed Americans; Papago, Pima, Maricopa and other Indians, each characteristic; negroes; and, almost more numerous than all, Chinese. But as night was approaching and we were wearied with our day's journey we could pause but little to observe all these things, and hastily completing our various missions turned back to camp, which we found had been made most welcomingly comfortable by Mr. Hodge and Mr. Garlick.<sup>55</sup>

Our meat and fresh things, canned goods, etc. *ad libitum*, eggs, butter, milk, and honey, were so delicious and stimulating after our desert fare that Mr. Hodge and I lingered long over discussions of the future and the writing of our letters.

During the three following days (*Wednesday, Thursday, and Friday, Feb. 9-11, 1887*) we were mainly occupied in making repairs on and additions to our transportation outfit, opening accounts with various reputable dealers in provisions, materials, etc., in seeking for a cook, and, for my own part, in making general observations and gathering such information as I could relative to the archaeological characteristics of the surrounding country.

These days were all bright with sunshine, and it was extremely pleasant for us in carrying out the measures I have mentioned to journey each day a mile or so into town along the wooded and irrigated avenues. There were hundreds of little points of peculiar interest in this singularly new but so old looking town of Phoenix. The ways of living there were as peculiar and varied as were the architecture and the growing things. Of the most striking interest were the various Indians one would encounter along the streets and around the corners of the business portion of the town. As I have before said, these were members of the Pima, Papago, and the Maricopa and other Yuman tribes. Nearly all the Maricopas were recognized

at once by their lithe, tall figures and generally finer appearing faces than those of the Pimas. These latter were generally somewhat short, thick set, and generally slouchy in their gait, with rather round, heavy looking faces. The women among them, and both men and women amongst the Maricopas, had little lines of dark blue tattooed on their chins from the corners of the mouth downward, one or more, and even some of the men among the Pimas were tattooed from the corners of the eyes backward across the temples to the roots of the hair.<sup>56</sup> Not infrequently I observed one or more of them who had little series of tattooed mourning marks just above the brows, and some of the women again were not only marked, in the manner I have described, on their chins, but also from one to several dots introduced between these lines.

I surmised, and afterward was told (but whether or not I am unable to say) that these blue lines drawn down from the corners of the mouth over the chin were made ceremonially at the time of reaching puberty and were indicative in themselves of marriage; and that, furthermore, the little dots were indications of the number of children born of such marriage. Of course the markings from the corners of the eyes backward were symbols of totemic meaning, personating, in the main, the stripes from the eyes to the ears observable in so many animals, from which, doubtless, the clan names of these persons were in some way derived. Thus I inferred, because the rule was by no means universal, nor was that of dotting the brows, for which reason also I had inferred, that they were made as mourning marks.

There were many questions of this sort continually suggesting themselves from the appearance, actions, and conscious or unconscious behavior of these peoples, but afterward our researches became so specially limited to studies of the archaeology of the region that until very late in our residence I could find no time, nor could my associates, for pursuing these very interesting and important inquiries.

One matter interested me, particularly in its archaeologic bearing, namely, the methods of dressing and ornamenting the hair. Nearly all of these people wear their hair long at the back, bobbed off or "banged" over the eyes, as is universally the custom of the sun-worshipping sedentary and semi-nomadic tribes of the Southwest. Often, especially among the Pimas, the hair was dressed in many long, depending ropes, not so frequently braided as twisted in separate strands and then combined so as to retain the twist, much as one combines two strings, first twisted singly, then folded and twisted in the opposite direction. At the ends of these ropes would be seen little ornaments made of tufted, bright-colored wool

and other fiber, and not unusually bound with little strings of beads. A rarer but far more significant mode of wearing the hair also prevailed, this being to gather the depending locks in a bunch tied just above the nape of the neck and decorated with a tall, upright plume, sometimes composed of very beautiful, long tail-feathers of the chapparal cock, and further decorated with symbolic, floating, downy plumes of the eagle. On more than one occasion I observed amongst these plumes two or three macaw feathers, and this was of especial interest to me, since often in the folk-tales of the Zuñis, sometimes even of the Mokis [Hopi] and other Pueblo Indians, the head-dresses of the gods and heroes are always referred to as similar to these.

The costumes of these people were generally uninteresting because so greatly modified by the introduction of civilized clothing of cloth materials; but many of their weapons and utensils, and again many of their articles of adornment were not only beautiful but extremely primitive, especially in style. Their basketry, from the great panniers and burden nets to the little bowls, water-bottles and other receptacles, were water-tight and almost inimitably beautiful in outline and decorative quality. But as, from time to time in the course of this journal, I will make special references particularly to the Pimas, who were the denizens of all this region when it was discovered by the Spanish explorers, whenever their arts or customs throw light upon ancient details or arts, little more need be said of them in this connection.

It was not a little surprising to find that in addition to all the varieties of mankind we encountered on the evening of our first visit to Phoenix, we should observe, during these second and third days, even gypsies here and there, in no wise differing from their more eastern kinsfolk or at least representatives save that some of them were manifestly of Spanish origin and had penetrated to this region rather from Mexico than from our East.

Both Mr. Hodge and I when I was at camp had to turn our attention, as indeed all the party did, more or less, to the meal-getting and other works which consumed much time and called for a generous amount of patience. It was therefore somewhat disheartening that until the third day of our stay at Osborn's Ranch had dawned in a gorgeous and summer-like flood of light my efforts to secure a cook proved unavailing. I was at last, however, fortunate in obtaining an introduction to the "chief," as it were, of all the Chinamen in Phoenix and neighboring places. He was a certain very rich, exceedingly courteous and very affable, well fed Americanized Chinaman, named Joe Gunn;<sup>57</sup> and I do not think I referred

my needs to him more than an hour, before that business-like gentleman reported that he had found a young man, Dah Yung by name—pronounced in English all too suggestively, “Die Young,”—a little fellow with twinkling eyes, a good knowledge of English, and more thoroughly Americanized even in costume and ways than his patron. The price for which he would work was the first question discussed, after which, as my offer seemed satisfactory, all other points were of minor importance, such as how long I would require his service, when and where. He reported his intention of being in readiness early on the following morning.

As I was wending my way back to the covered buckboard—in which usually the ladies (if tired of walking or shopping) were sitting, Miss Magill ever eagerly at work adding to the already rich store of subjects in her sketchbook—I chanced to encounter near the corner of a street an old friend whom I had met under the most singular circumstances in the more northern country of Zuñi. He was an old resident in the Southwest, but had formerly lived in Washington City, belonging there to one of the leading families of the old days. He was a man of excellent educational attainments, fine tastes, and, at one time, of great wealth but having been disappointed in love fled away, whilst still comparatively young, into the southwestern wilderness and had traveled as far to the south as one of the stations of the original Overland Mail Road from Fort Leavenworth to the Pacific, where, amongst very disorderly and lawless surroundings, I found him plying the most humble of callings about one of the stations, even in his poverty and rags an extraordinary contrast to those by whom he was surrounded. He had chosen me as a friend in particular when I met him and had always informed me, whenever he would, of interesting ruins or other matters relating to my researches, and he it was who had first referred to this farther southwestern section of country as one of possible great archaeological interest.

It was, then, in this encounter, as often afterward it was in others, that a sense of the singular fitness of accidental circumstances or happenings [struck me] that I met as my first old acquaintance in this to me new country my first informant as to its value for such research as we were about to enter upon. And not less singular was my meeting, on that same day, with two or three others whom I had known in my native town of Albion, New York, when I was but a small boy seeking relics in the woods and fields of that country.

Highly gratified with having at last found a cook, and with having brought our preliminary arrangements to a conclusion, completed all repairs, and made the necessary additions to our outfit, we returned to camp at night, and I spent a



long time in the tent occupied by Mr. Hodge and Mr. Garlick in laying out plans for our first journey, and in prearranging, as far as possible, our lines of inquiry.

On our last morning at Mr. Osborn's ranch (*Saturday, Feb. 12, 1887*) when we were all very early astir, being full of our prospective day's journey, Mr. Osborn insisted on escorting the ladies and myself about his little garden-like ranch, showing us numerous fine groves of apricot and cherry tress, already blooming, and a large number of fig trees, of which he was very proud, as at the time he had planted them the experiment of raising figs in this portion of Arizona had seemed but doubtful. Some of these trees had already borne fruit, and gave promise, in some way clear to Mr. Osborn but occult to our eyes, of an abundant stock in the coming season.

Loaded with cans of honey and other delicacies, our little buckboard led the way down to town, speedily followed by the other vehicles. When we reached Joe Gun's grand restaurant we found Dah Yung, faithful to his promise, awaiting us with the usual Chinese bundle of bedding, not rolled, but done up like a tremendous pumpkin, and a fine American gripsack. Every detail of utterance, behavior and appurtenance about this new cook was amusing. Without awaiting for any waste of words, he asked me—

"You go out of town, be gone all night?"

"Yes," I said; "a good many nights."

"You catch'em yeast cake?"

"No, by jove!" said one of our party, "we had forgotten that"—to which Dah Yung, paying no attention, replied—

"All 'ight, gimme two bit,<sup>58</sup> he buy al'le want."

For a moment he disappeared, soon returning with a generous package of yeast cakes in his hand. He lifted his bundle, and as he did so I distinguished a curious "tick—tick—tick" sound in it; but Dah Yung, leaving no time for questions or surmises, immediately asked where he should "put him"—referring to his bundle.

"Where would you like to ride;" said I; "in the buckboard or on the wagon?"

"Al'le same; catch'm wagon, catch'm buckboard; al'le same; me no caali."

So I pointed out the buckboard driven by We-ta and Si-wai-ti-tsai-lu, and without another word he proceeded to strap his bundle tightly to the buckboard, and to take his place, manifesting no kind of curiosity as to his singular companions, nor of them in regard to him, although there were groups of people gathered and gazing with unalloyed curiosity on these two by this time over-

persecuted Zuñis. The greater part of these were Pima and Maricopa Indians who were examining detail by detail and evidently admiring beyond all moderation. This admiration, centered on them by people of their own kind, was by no means unwelcome to We-ta and Si-wai-ti-tsai-lu, notwithstanding that then and for long afterwards they held themselves contemptuously aloof from such ill-housed creatures as these Indians proved to be.

We had not proceeded very far when an unusual jolt in the buckboard immediately behind us (i.e., the one driven by our Indians and occupied by Dah Yung) set off a singular noise from the depths of Dah Yung's bundle. The Chinaman made a quick grab for the bundle and endeavored to throttle the sound, but in vain. It was the alarm of the clock with which he had provided himself, and it was not only an amusing incident but an unusual one to us as it showed a deep-seated bias in favor of punctuality.

We had not yet left behind us the straggling houses and ranches that made up the eastern section of the town of Phoenix, when I discovered to the rear of a house seemingly set in green fields, a broad space of yellow earth in the midst of which towered a high mound immediately recognizable as of Indian origin.<sup>59</sup> As it was some distance from the road, however, I did not attempt to examine it, but we drove on. We had not proceeded more than four miles from town when we came in sight of a perfectly magnificent example of the terraced mound or earthwork structures (as they have been hitherto described) of this and the Gila valleys.<sup>60</sup> Nestled under one end of it was the ranch, looking very diminutive beside this vast pile of what seemed to be earthy concrete, occupied by a family named Adams.<sup>61</sup> We could not resist halting here, so near the side of the road, so paying my respects to an elderly woman who held the doorway of the little ranch, and finding her not at all ill-disposed, I rode up to the top of the mound. When I surveyed it, apparently hundreds of feet long and of corresponding breadth, terraced, and evident at once to my eyes as a wall-constructed building of some sort, I felt that our work in this region, be it long continued or limited, could not fail to yield the most interesting of results.

As I was about to descend from the mound I saw from the vantage ground I occupied, being on horseback, twenty-eight lesser mounds, seemingly so low and sloping that they might well have been taken for natural features, in every direction, near and far off. Riding down to one of these I discovered it was wholly artificial in origin, and a hasty examination of three or four more indicated that all of them, without exception, were of like origin. One, a little larger than the

others showed that it had been, like the great mound, a structure rather than an artificial elevation only, and this led me to the inference, proven afterward to be correct, that the mound itself was but a great central structure—a citadel or temple—whilst these lesser mounds seemed then to me to be blocks or assemblages of houses in which the main population of this buried ancient city had dwelt and which led me at once to name the place “El Ciudad de los Pueblitos,” or “The City of the Little Towns.”

As far as the eye could reach, from rearward [north] toward the road [south] over this level, somewhat gravelly sage-covered plain these mounds extended apparently for nearly a mile and a half, if not quite two miles.<sup>62</sup> There is little wonder then, in the light of my new formed theory, that all of these mounds, or nearly all of them were the sites of village-like blocks of dwellings, that my hopes rose very high for the future of the Expedition’s work in this section of country, in which hope all the members of our party joined.

Inferring that beyond would be found yet other mounds set amidst similar lesser evidences of ancient occupancy, I decided to continue until a favorable site for establishing our camp for a few days might be found near to the little town of Tempe, nine miles from Phoenix.<sup>63</sup>

We had discovered during this hasty examination great numbers of interesting potsherds, many of them showing beautiful decorative devices, some of which were, as to their symbolic meanings, so close to the Zuñi that they were at once recognizable to me, together with numerous other fragmentary remains—as of polished stone implements, chipped articles, etc. No less fortunate were Mr. Hodge and Miss Magill who, descending from the buckboard, had by “grubbing,” as they termed it, with a stick succeeded in finding several other even more interesting remains of ancient art.

Just as we were about to leave I went to the ranch in order to thank Mrs. Adams for permitting us to examine her premises and to arrange for more extended researches there in the future. She was greatly attracted and manifested lively frontierian curiosity regarding not only our party, especially the ladies, but also my footwear, which happened to be close-fitted red buckskin Zuñi moccasins. She was, indeed, so much interested in these latter and told me such a pitiful tale of the sufferings of her feet in the heavy shoes procurable at Phoenix, that I almost completely won her good opinion by promising to have a pair made for her by the Indians who were with me; and she became completely friendly when on finding that her tobacco, to the use of which she was extremely addicted, had

given out I presented her a package of "just the finest stuff" she had ever "draw'd a whiff on."

Notwithstanding my extreme haste Mrs. Adams waxed eloquent and I bade the party proceed without me, trusting to Douglas for making up time lost in mutual affabilities. No sooner had the buckboard disappeared than she turned to me and gave me startling evidence of the trait which in far away regions seems well nigh universal and of easy adoption, that of instant and minute observation.

"Be them ladies your wife?" she inquired.

"One of them is; the other is her sister," I replied.

"I thought so; and I kin tell you one thing, young man, they be ladies, and you kin jest bet on't. I know a lady when I sees her. But say, they don't belong to the circus, do they?"

"O, no," I said again; elaborately explaining the purpose of our Expedition, which at last she seemed to comprehend, though not with ready approval, as expressed in her rejoinder—

"Jest to think on't. Well, I know'd they was ladies, because I see'd one of 'em when they got down, and I sez, 'there's a lady, as sure's anything, 'cause she got on a grecian ben.' Now a'int they?" And I assured her that they did wear something of the sort, though I could not bring myself to confess that she was strictly accurate; and I departed with parting injunctions from her, in a cloud of smoke, to "jest come back soon and dig up the whole ranch ef you want to."<sup>64</sup> Indeed they would be glad to get rid of the "pesky truck."

I asked her if she thought Mr. Adams would feel equally well disposed at my researches, and she replied—

"O, well, as fer as my ole man is concerned, he don't 'mount to nuthin' noway; anyhow he don't min';" and, determined to take speedy advantage of these favorable opportunities, I hurried on, overtook and passed the party.

It was nearly sunset when, high above the road where it crossed the Salado to enter Tempe, I saw beautiful, gravelly slopes rising one above another, with wide, level summits, and seemingly not difficult to reach even with wheeled vehicles. I rode up the rather steep slope leading to them and found that they were the skirts, so to speak, of a most beautiful landscape, in the lap of which we might rest for a time. Rising above them off to the east and north, were ranges of deep red crags, pinnacles, mesas, and in the farther distance mountains composed of a sort of volcanic conglomerate or coarse porphyry, from the wearing away of which had resulted these magnificent slopes of dark gravel.

Soon our teams reached the slope, and by cutting our way through the dense growth of willow and arrow bushes which completely filled the river bottom and which were already turning green, we succeeded in finding a road, up which, with no great difficulty, our wagons were drawn and on the first of these beautiful plateaus were disposed for the setting up of the camp. We were soon comfortably settled in two tents, readily pitched now that we had become skilled in the ways of camping, and although the outlook was forbidding at first we were soon so pleasantly resting that I determined, if possible, to make this our central situation for some time; it was the first regular camp of the Expedition, [and I decided] to name it, in honor of Mrs. Hemenway's son, and in order that it might bear a name held by the ancients of another world, to be auspicious, "Camp Augustus."<sup>65</sup>

Before our little camp on the river hills had been wholly made ready for the night, there was not a little dissatisfaction with the seemingly uninviting spot I had chosen for our resting place, in the party here and there, ere supper was prepared; but when the animals had been fed and watered and a delightful meal spread before us by Dah Yung all faces except one or two brightened.

Had the place still seemed objectionable after our cosy meal by camp-fire and visit, surely when the morning sun (*Sunday, February 13, 1887*), clear as a summer sunrise, flooded the wide, roundly terraced slopes with red light and warmth, and tinted to an almost fiery red the nearer peaks lying the more distant in purple and causing the wide river below us to gleam and quiver like new melted metal up from among the trees and bushes, every sense of protest must have been swallowed up in such surrounding as clouds are in such a sky as bent above us.

The tents stood on a great level or but slightly rounded table rising twenty or thirty feet above the immediate river banks and reaching back a hundred yards or more to the base of a slighter terrace, itself the giant footstep of others, whilst on either side it was bounded by a deep arroya, sheer of descent, yet also nowhere angular at the borders. Under our feet gleamed a pavement of black or brown polished pebbles, set as for such use as we made of it, in natural white marl-like cement stained ruddy here and there by the red volcanic rust or porphyritic detritus from the craggy outcrops above. A few cacti, scattered greasewood bushes and diminutive palo verde trees alone interfered with the perfect level of our camp floor, and these were soon removed, for no one objected when I proposed this should be our abiding place from which, for awhile, to explore at leisure the surrounding country; everyone joined me except the Indians whose shouts were

perfunctory like those of a startled peafowl, when I named the place and called a cheer for the luck of Camp Augustus.

First, coming up from the south, and midmost of the tents, was the great round "sibley," which, furnished with three curtained compartments like border pologs of a summer Tartar tent in Mongolia was occupied by our two ladies and myself, the middle being reserved for the fire and general assembly and dining place. Then to the right, facing upward (north) was Mr. Hodge's tent; beyond it that of Mr. Garlick; beyond this, yet again, the tent of the Indians and Dah Yung, all nearly equal in size, walled and gabled, houselike. Opposite them, across a square, were the cooking and provision tents, in front of which, under a canvas awning, stood the cooking apparatus, our "tarantula," an adobe oven erected by the Zuñis, and a box-piled cupboard. To the rear of all, stood, one after another, the wagons, ready drawn for use, and around them as well as beyond were grouped our mules and horses quarrelsome munching their forage, or just now noisily champing — with close laid ears and suspicious gleaming of eyes and nervous switching of tails — their grain, in mask-like nosebags of canvas and leather. Already we had learned to settle a camp in orderly and convenient fashion on short-time principles, even to the setting up of our sundry, long-piped, little conical sheet-iron tent stoves, from which the black smoke was pouring into the clear morning air and making a steady stream of racing brown shadows seem to pour down the sides and slope of the white canvas.

But if our camp was picturesque, even on this first morning, what might be said of it later remains to be said, and of the farther scene on this and on all mornings, whether sunny or sullen in rain clouds or even dust storms, which came in plenty later on, can but ill be told in writing.

No description can give lightly the slightest sketch of the full scene beheld with a single sweep of the eyes over any quarter. I can only take each view in cycloramic order of our notes and read them into this on a ground-work of the general features. I would not essay to do even so much were it not like to prove needful for the archaeological map-sense of the reader by and by, as the framing of a wonderful picture of life in far centuries past where now hills and plains were as yet but merely scratched by an invading settlement of frontier land-grabbing civilization.

Down in front of us spread out to the left or on the upper hand was the Salado in a wide shallow course, bush and willow enfolded, broken midway by a long

black cobble-stone island bare a part of the way but shrouded in arrow-weeds and yellow top in other and greater part.

Up there where the water was widest towered a double pointed butte,<sup>66</sup> dark black and rusty as if charred and scorched by the volcanic fires which produced it, for it was a cone, crackled, seamed and worn, shattered and tumbled like a black shard-bank by convulsions and age-sculpture. This descended like the slender black skirt of a demon-dancer or the distorted side of an iron bell from its height to the silver water width, with scarcely a rest for the eye on its river side save in gashes here and there, "the mouths," I cried, "of caves who knows how rich in ancient shrine-gifts!"

Facing us was this from across, whilst under it, on the lower banks, like blocks of itself bleached lighter were the rows and assemblages of low adobe houses, looking irregular enough from where we stood, of Tempe, or the Town of Hayden's Mills. But not to cross the river yet, save in a general way, — *we* had not — a turn from the water scene to our high northern back-ground shows from all ages gone and to come, a far grander, lovelier scene on which none of us ever wearied to look, nor even could have wearied, it seems to me now. The Sunflower Peaks rose before us, black-brown of themselves, but like ragged, varitoned, heaving, wind-swept rain clouds in the light of dawn and evening or moonlight. They started as low, sharp-pointed hills far to the left and west where we had entered the Salado plain through the vale of New River, rising mountain on the shoulders of mountain until to the right or farther east they stood like a row of school children under the master which "Four-peak Summit," or as my Indians named it, "Finger Mountain," clearly was, for the comb bedecked brow was white just now in a mantle of pure winter snow.

Away south and farther east, seeming the sentinel of the whole vast scene, ever looking at one whencesoever beheld, like the face of a portrait, stood the broad level-topped, gigantic and mystic Superstition Mountain or mesa, Sierra del Incantacion so the Mexicans call it — weird always, whether bright red at sunset or dark red at sunrise — for it was wide spread enough, north and southward, to be the point whence the sun issued forth all the day dawn of winter and summer. Between us and it flowed down invisibly from the northeast of the Salado from its never yet explored deep cañon pathway, joined this side of Finger Mountain by the Verde River, the ample gorge of which was blocked up to the eye by McDowell Mountain — a red rock castle of giants which a little later I had sad cause to name "Disappointment Mountain." Between the latter and ourselves lay a seemingly

sunken plain, creeping up to or falling down from the boundary mountains (as all the Salado delta floor seem to) like a huge, worn out old carpet of yellow ground warp and gray green plant decoration thrown over the sharp heights, as it were, and torn through by them, its midmost nearly level yet sagging expanse being jaggedly rent or cut, from the northeast southwestwardly, by the low-banked, sharp turning river. Smoke rose from the dense desert shrubbery of the oval edged hitherward side of this plain, up near the river betokening an encampment of the Saladano Pimas, and just across the arroya from us, rose a sharp black-rock headland, on which, — joy to see! — lay a crown of ancient foundations to a fortified village — the whole, with this exception, looking like a fragment of the high butte across the way, or, like what it really was, a portion of its foot-ledge cut off by the river. In semicircular array, like out-posted sentry towers or terraced and battlemented castles, some peak-roofed, guarding the passes from our camp site to the mountains, stood, on a line northward bending westward, a series of red colored crags of basalt, the first cutting into the view of the plain I have described, the second rising higher and overtopping this first as others to rearward did all in front of them, until, no longer towers, but craggy walls only here and there severed, then led off due westward, merging ere long in the foothills this side of New River plain. These walls to the north, and crags approaching us, all threw out low spurs glowing just above the cacti and bush growth which grew tree-like nearer to them, whilst all, too, seemed to grow redder than any one part of them, seen against the dark-toned Sunflower Mountains (already described), to their rear.

If from this mountain wall on the north one turned due westward, looking along the plain, here higher than across the river he might see, gleaming white almost like yellow clay in strong sunlight, the great citadel mound of the Ciudad de los Pueblos. Beyond were the faint outlines of Phoenix towers and chimneys, some ten miles away. But turn the eyes southward from that far point and up rose, grayer, more barren, more rugged, yet not high enough to be tipped with snow, the Maricopa Mountains and back of them where they abruptly ended,<sup>67</sup> south-southeast from our camp, nearly eight miles away, the Estrellas or Mountains of the Stars — not unaptly named, for never gleamed stars more brightly than did those of the southern sky seen over and through their heights at night time. From these, whether along their northern base, falling toward us, or eastward, in profile toward us as they trended south, a nearly equal distance, sloped the brush-clad and cactus-studded plain uniformly to the hollow level of the river



plain, on the farthest border of which, thrust up between the Maricopas and ourselves, stood what I had good and thankful cause to name later Cave Butte, and her elder brother Twin Butte, rising black, cragged, and sheer like the near Butte of Tempe, seemingly through the almost level plain carpet.

East and a little south of these, embowered in heavy growths of mesquite, brighter palo-verde and jediondilla or greasewood bushes more black than green, gleamed another cream-colored elevation of gigantic proportions which, taught by the glimpse of the mound I have mentioned (north of the river at Los Pueblitos), my eyes recognized also the center of another city, named for the moment Ciudad del Sur, but later, as will appear with reason, El Pueblo de los Hornos. The plain straight south from us and the river seemed to reach out indefinitely beyond Tempe and the butte of like name, flanked on the east by the Sacaton Mountains as it was on the west by the much nearer Maricopas. For the Sierra de Sacaton lay beyond a long, far-off range of sand-knolls and plains where little seemed to grow save the columnar candelabra-like giant saguaro cactus, nearly thirty miles away. Between their slopes and the river far east even to the Burro and Superstition Mountains, sixty and seventy miles away, lay apparently almost level trackless forests of mesquite with at best only seeming lakes of bare plain or sage growths scattered through them—level I say and mostly overgrown, save due east of us some three miles across a bend of the river where the plain lifted suddenly to our own river terrace level, forming the so-called Mesa of Mesa city, cleared in a measure by its prosperous Mormon farmers, whose town was invisible. Not so, however, another gleaming mound,<sup>68</sup> the greatest of all that region, the center of a vast city of pueblo houses, it alone, and some lesser mounds like it, attesting the burial sites of miles of men's houses, revealed first by our later researches.

Finally, we end where, soon after the beginning of this description, I started—with the Mountain of Enchantment—Superstition Mountain, grand guardian over a once vast province, opener of the portal, and sun journeyer of days where in the direct east the eye first sees it, and having looked for a long time or briefly turns back again, like the eye of a subject enchanted by hypnotization.

In writing this long and labored description, I may seem to have dwelt on features of landscape more than becomes an antiquarian seeking remains; but I shall show on other pages that thousands of acres in the level plain owe their floor-like trend to men in ancient times; that the valley opening wide here below and around Tempe owed the distribution of its cities to the water flows in hundred mile canals, the cities of one system their distribution and to a great extent their

system of government and interrelation to the slopes and landmarks around them, and a hundred other features of physical nature which molded a whole people and their life and policy for centuries and centuries, long ago. Nay I must even yet pause to give greater exactness to this sketch with aid of maps and statistical statements before I again turn to the chronicle of our daily life and of our explorations, which revealed shortly so much that was new to American archaeology.

And this is what we saw on the Sunday morning (*February [13], 1887*) after our first settlement in Camp Augustus; not in one look, nor at one time, but whilst we were all busy in putting into better order the details of camping, in bringing timbers from the river side and firewood from the slopes below the great red crags, and in other ways. The ladies during the morning were busy unpacking, Mr. Hodge in extemporizing, by means of a wide board on top of a box, a writing desk; Mr. Garlick in setting up frameworks to which the animals might be tethered, and racks (the posts of which were driven into the ground with extreme difficulty) from which they might be the more economically fed, and in bestowing our effects, not yet grown to collection, under the shelter of wagon canvasses; whilst Burgess served in general utilities and the Indians herded the animals to and from the river to browse and water.

Long before noon we were even more comfortably settled; yet much remained to be done. To vary our minor occupations, however, Miss Magill and I made excursions to some of the nearest crags in order that some holes and gashes in them might be explored to ascertain if, perchance, some sacrificial caves existed there. We found none, but on the hill across the arroya near our camp where the old ruin stood, we discovered fairly well preserved outlines, but tumbledown square-house foundations, and a large enclosed area which at some time must have served the purpose not only of a workshop of the primitive dwellers there, but also of the plaza or court in which they performed their dances and other ceremonials and where they assembled their warriors and hunters. There were many small chips found that had once served as cutting tools, or were the scales of more pretentious implements of obsidian, jasper, and chalcedony. But more interesting to us than anything else were the sherds of pottery we found here; not large, but quite important since they betokened the real Pueblo type of ceramic art—the slip-finished red and black painting.<sup>69</sup>

In order that a somewhat better idea of the valley may be gained an outline map of it is presented, and I present also a couple of figures in which may be seen, restored, the forms of vessels from which these fragments must have been de-

rived.<sup>70</sup> Yet other sherds, showing that they had once been eating bowls or trenchers, and others still of unusually coarse cooking pots. These also, as restored, are illustrated in the outline figures below.

At the eastern end of the ruin referred to stood a little Pima shrine, not very recent, nor yet exceedingly ancient, consisting of a terraced altar built up of loose stones that had fallen from the walls, on a step of which were numerously displayed a bunch of arrows with hard-wood, sharpened foreshafts, all neatly laid, somewhat fan-shaped, and held in place by two large flattened stones. In the midst of these were a few sacrificed beads, mostly of blue glass, but some white and two or three red. That the altar should be placed at the eastern end of the ruin, and that the arrows should be pointed west was significant, for it indicated at least two things—propitiation for the living, and sacrifice to the dead—the eastward position of the altar being significant of the one, the westward direction of the arrows of the other. On the ledge of these rocks and lying below them Miss Magill happily discovered two small entire vessels of a ware which was at once recognizable as differing considerably from the ancient ware (sherds of which we found round about) in that it was not so well burned nor composed of such strong argillaceous material, the decoration or graining of this *degraisant* more modern Pima pottery being, whilst finer, more in excess of the clay used than in the ancient ware, and the ancient pottery being rather of plain red color or lighter unpainted ware much mottled by the excessive burning to which it had been subjected. Toward evening, as I descended the slope of the terrace on which our camp stood and crossed the mouth of the arroya that bounded it on the western side I went down a little gully dug in the gravelly soil by a recent freshet and came across some very large fragments of pottery, not of recent Pima, but of ancient Pueblo origin. Plain ware it was, but evidencing graceful form and outline of the vessel of which it was the remains.

By the necessity of settling camp, of visiting and making arrangements with dealers in Tempe by Mr. Hodge and myself it was impossible to find time to make intended trips, even on foot, of reconnaissance about the country of our camp. Therefore we all most eagerly pushed forward our preparations in the hope that within two or three days we might return to Los Pueblitos or seek caves in the mountains behind us and begin seriously the explorations for which the Expedition had entered that country.

But still one or another of us was able to make observations at least near at hand. Indeed, very early on the second day of our stay at Camp Augustus Mr.

Hodge was faring forth to the slopes behind us to explore the nearest great red porphyry crag on our north. He climbed its steep jagged sides with great difficulty and entered a promising one of the many small natural grottos or caves to be seen everywhere in this formation, in the hope of discovering there an ancient shrine; but his reported lack of success in this on returning led at least Miss Magill and myself to objects nearer at hand.

One of the most singular classes of natural formation throughout this section was that of grottos formed by concretions(?), probably calcareous, of the cement-like sub-stratum material wherever this had been washed out by freshets or rain torrents, especially along the edges of the hills and plateaus. These were hollow, many of them, and so much like domes that they resembled the great Zuñi oven that Weta and Siwaititsailu had constructed for Dah Yung. Not a few of them had considerable dimension and looked as though they had been formed for ages. Our most searching examination of them, however, failed to reveal remains of ancient art or traces of any other than comparatively recent occupancy. Two or three had evidently served as shelters or hiding places for modern Pimas, now and then, but indeed most of them were rendered utterly inaccessible by wood-rats, as numerous here as in the wooded regions of the Zuñi country.

These industrious little creatures had gathered and piled high within and around the entrances of these natural bubble-like grottos spines and burrs of the cholla and other cacti, rendering their retreats absolutely safe from the intrusion of wolves, foxes, or even rattlesnakes, their principal enemies. There seems to be no cave in all this region, indeed, whether in the sides of the cliffs and mountains or on the level, that have not been occupied by these little animals, and a study of their method of defense, especially where these are sometimes varied according to the kind of animal they are designed as defenses against, would form in itself an intensely interesting essay.

But as the day approached we occasionally had wind in greater or lesser violence, betokening the coming of a storm, and were forced to confine our attention to preparations of the camp therefore, replacing all insecure tent-pins, digging trenches around and banking up our canvas walls, and hauling more willow or poplar poles for reinforcing the ramadas, as shelters are named in this country by the Mexicans, whether of boughs, as the name implies, or of canvas.

As it was St. Valentine's day, the ladies created considerable diversion by the amusing sketch cards they made and sent to Mr. Hodge and Mr. Garlick, particularly the one to the former;<sup>71</sup> and furthermore we were greatly interested at odd

moments in observing the Pimas who gathered in great numbers from morning until night, party replacing party around our kitchen fire and at a respectable distance around the two Zuñis, whom they observed narrowly but who did not deign themselves to pay the least attention to or notice of. Again, for a while, Miss Magill and I were busy in repairing the damage caused by a spark falling on the round roof of our tent which burned a large hole, and required to be, in view of the threatened storm, immediately mended. Whilst I, mounted on an improvised ladder, worked on the outside, pushing my needle through the canvas, and Miss Magill, working on the inside pushing it back, quite a crowd of Pimas gathered around us. Their faces were most elaborately and curiously painted in greater variety than one would expect on any other than ceremonial occasions. They were evidently poor members of their tribe, the clothing, at least of the men, being very scant, consisting generally of a shift of some flimsy calico or white cloth decorated rudely with red stains by themselves, and enormously long breech-cloths. The women, although clothed in more cloth than the men, simply longer shifts tied at the waist, short armed and low-necked, were scarcely better costumed. In addition to this, however, each carried or wore a wrap of the same flimsy material. The art of weaving seemed to have gone out of practice amongst them and their kindred. It was interesting to see they carried about on their backs, held in place by these mantles of cotton, their babies, precisely as Zuñis do, who always, with one hand placed behind to support the child, thus guard against his falling through the thin support the calico mantle supplied.

We observed that not only the chins of the women were tattooed, and the faces of the men in the ways I have described, but also their arms near the shoulders and sometimes tattooed marks on other portions of the body appeared, evidently connected with ceremonies performed at times of puberty.

Nearly all of them went barefooted, notwithstanding the fact that the whole country is strewn with wicked spines of the cacti *visnaga*, and other species—and at least those gravelly slopes are exceedingly rough to walk upon even in substantial shoes. But these people did not seem in the least to mind such trifles; their feet, having been from childhood unconfined, were very flat and broad, but unusually well formed, and sometimes even beautiful. Whenever they lifted them, however, one could see that a thick callous sole or padding had been developed by much long-continued usage. And another point struck me as most interesting. Although these people walked with a slouch-in gait, as I have said before, they were as exceedingly sure-footed on all circumstances as mules proverbially are on

mountain slopes for that matter, and always had a singularly well-balanced look, whether standing or moving, which was directly due, it struck me, to the constant habit they had, of necessity, of supporting themselves on one foot while lifting the other high and plucking out spines, a process, if the well-known characteristics of the cholla spine be considered, often somewhat tedious.

Not a few of the old people amongst our visitors, particularly the old women, wore sandals made of rawhide and quite simply yet ingeniously laced to the feet precisely after the fashion of the sandals made of yucca fiber of primitive date found in caves by myself and others in the north, particularly in the Colorado Chiquito region. I perceived that this custom was not practiced uniformly, but these sandals seemed to be rendered generally necessary by the tougher and drier nature of the soles of the feet of these older people, and their constant tendency to crack and become very sore unless thus protected.

Another very primitive method of personal adornment in vogue amongst these people is that of wearing strings of beads, not merely as such, but sometimes plaited together side by side, flat as it were, making broad bands, very beautiful in appearance, unquestionably derived from the very ancient usage of making shell ornaments, such as the [accounts] of old Spanish records [show].<sup>72</sup>

Not a few of these Pimas appeared in heavy clay or dried mud caps made of a kind of fuller's earth, abundant in the Salado and Gila rivers, with which they cleanse beautifully their hair and succeed in exterminating the vermin with which all are more or less infested.

Besides carrying bows, unusually long for Indian archers, and bunches of very neatly made cane and foreshaft arrows, well feathered, the younger men at least bore usually flutes made from two large joints of cane and most beautifully decorated with incised or burnt and painted devices, furnished with four stops, and almost always plumed, nearer one end than the other, with large downy eagle feathers, precisely as the Zuñi folktales claim was the flute of Paiyatuma and other summer-land myth heroes.

Although Miss Magill, who had already picked up several words of the Pima language from kindly intentioned matrons who took to her and afterward wished to adopt her, asked several of these young men to play, none would do so. This looked to her like lack of politeness on their parts, but it really arose, undoubtedly, from the fact that in Pima custom no less than in Zuñi myth, the flute when played by a well-decked young man for a maiden is the instrument of all instruments for transmitting love sentiments and messages. I was led the more to

believe this theory when later asking these same young men, or at least others like them, to play, I could frequently induce them to do so, and their music while rapid and most strangely sharpened and flattened was wonderfully soft and sweet like that, if such there were, of systematized bird songs.

The next morning (*Tuesday, Feb. 15, 1887*) opened as we had half expected, with a little dash of rain, very cloudy, and after that excessively windy, so that by noon the whole country seemed to be enveloped in dust clouds, and most happy were we that we had chosen this little hillside with its gravelly pavement for our camp. Messrs. Garlick and Hodge, assisted by the Indians before the animals were driven forth to grass, ascended the plateaus above and gathered abundant loads of dry mesquite and palo-verde wood in order that, if need be, we might stand a camp siege; and later Mr. Hodge and I gave considerable attention to unpacking our boxes of reference works and stationery supplies in preparation for the opening up in an orderly manner of our business correspondence and accounts and for the writing of various letters to the home office of the Expedition and other points. Meanwhile Miss Magill made some little water-color sketches of the potsherds we had been finding, and during a lull in the wind storm made her way down to the edge of the hill, discovering there, near to the point where I had found potsherds a day or two previously, an imperfect but fairly good specimen of a grooved ax. This finding of remains washed out from a considerable depth along the steeper slopes of the river terraces, not in one but as time went on in many places, betokened to me a most hopeful sign—the wonderful richness of our archaeological field not far from the ancient centers of settlement—and seemed to indicate great antiquity for at least the earlier occupancy of this region by the pottery and town-building tribes.

Having secured our wood supply and thus made ready for a siege of storm, it having been reported to us that the rainy season was likely to set in, it became necessary to send Mr. Garlick with the large wagon for provisions and forage supplies to Phoenix.

Mr. Garlick had not long departed when Mr. Hodge and I, simultaneously sallying forth to fasten the door-flap and loosen the guy-ropes of his tent, caught the sound of a clinking bridle and saw emerging from the misty depths of the river banks the black hat and tall form of a stranger who rode briskly into our camp, inquired for me, had to be assured a second time that I was I in consequence of having expected to meet an older and probably graver and more scientific looking person, and being ushered into the tent we had been securing, proved himself

to be the editor and reporter-in-chief of the *Salt River Valley News*, a very excellent little weekly paper published at Tempe. Mr. McClintock appeared to us a tall, good-looking, keen-eyed and thin-faced representative of the Tempe population, and quite prepossessing in manner and converse.<sup>73</sup> He professed an intense interest in the work we had come to prosecute, on learning that it was not, as he and his townspeople had supposed, a railroad or some other "surveying outfit," for he was the first to honor our camp with a call. I could not at the time, of course, represent to him in detail much of our work, yet stating that it was very distinctly, and would prove, I thought, very significantly a continuation of the researches I had carried on during earlier years under Major Powell among the Zuñi Indians, for from what I had already seen of the ruins in and around the Salt River Valley I regarded them as the foot-tracks, so to say, of a people slowly migrating, or better still *growing* from the northern homes southward to partly fill and thoroughly imbue the regions of the far south with a pueblo race and culture.<sup>74</sup>

After Mr. McClintock had departed, toward mid-afternoon, the wind arose again and rain began to fall, mostly continuing until sunset and even after that at intervals during the night.

When at dusk the Zuñis, rather unusually belated, returned to camp from the herding of stock all day in the basin-like valley to the east which I have before mentioned, they were thoroughly drenched, but delighted with a visit they had been paying to the Pima village we saw the smoke of morning after morning.<sup>75</sup>

But also with these incidents of travel amongst a strange people the Indians were especially proud of a beautiful white heron which Weta had shot, the small feathers of which he gave to Mr. Hodge for a pillow, whilst retaining, of course, the wing feathers and tail plumes for sacrifice. This was the first specimen of the superb white cranes so common in the Salado and Gila valleys that I had seen. We learned a little later that it was their habit to roost in certain tall cottonwood trees down in the river bottom not far from our camp. On late evenings or early mornings, or especially by moonlight, it was a wonder to behold them in the dark, freshly budding foliage, whiter by far than snow because seeming to be polished in the uncertain rays of light against the night shadows of the river. They with numerous wild ducks, wild geese, and even occasional pelicans were a feature of this desert region that played no little part, as we afterward learned, in the mythic conceptions and thereby in the arts and even religious institutions and totemic systems of the ancient inhabitants.



In our large and cozy Sibley tent Mr. Hodge and I were little disturbed by the storm outside in our writing letters and memoranda whilst the ladies sketched specimens or ourselves as we sat at work in the fire and candle light.

After our work for the night was done and we had made a tour of the camp, finding Burgess, Dah Yung and the Indians comfortably settled in their thickly straw-carpeted tents, we returned to talk over and to make plans and memoranda for the future of the Expedition work.

Whilst Mr. Hodge, having ridden over to Tempe on my soiled-looking white horse (which the ladies had therefore named "Cafe au Lait") to post the letters I had dictated during the night, and in returning was engaged in transcribing other notes of dictation, Mr. Garlick returned from Phoenix with an ample supply, welcome especially to Dah Yung. As the morning (*Thursday, Feb. 17, 1887*) had dawned beautifully clear, clouds nowhere in the blue sky, dust nowhere over the landscape, Miss Magill and I set out for a saddle trip to the more distant great red buttes north and westward from camp, she riding Douglas, and I his most willing follower, the mule "Daisy."

We took our way up the slopes with high anticipations for the day's explorations examining in succession, when we had reached the second or third of these buttes, the heights and hollows of all. In them all, without exception, were such hollows and grottos as Mr. Hodge had examined in the first butte, nearly all choked up with spiny fortifications of the wood-rats, but none giving evidence of having been occupied by primitive man or even by the modern Pimas. As we climbed higher and higher toward the main butte which became almost a mountain in proportions the cacti, especially the chollas, grew thicker and thicker and to such height that we seemed to be riding through a down-bedecked forest until reminded, as we most frequently were, that the large soft puffy branches of the cholla seeming at a distance like the tips of wisp-willow boughs in the spring-time, but whose every seeming bud was an assemblage of needles which stung one like the poison of an ant bite. Towering far above them, here quite thickly, stood the great spectral giant cacti, in one of which my eye caught a few inches of an arrow shaft which had been so long ago shot into it that its feathers had disappeared and a huge gall had grown around the point which once protruded on the other side completely enveloping it. As we went on I observed others of the arrows, and since they were always shot at a particular portion of the cactus—where a branch divided from the main trunk—I was at a loss to infer whether they had been discharged at birds, at clusters of fruit in their season, or as sacri-

fices not unlike those in the rest-making stone-heaps along rough ways traveled by Zuñis.

In getting at the first of these arrows I felled with my "blade of Arizona" the huge cactus in which it was embedded, and it came to the ground with a loud crash like that made by the falling of a forest tree.

After picking our way up the steep slopes of the highest middle portion of this westwardly extending butte we came to a shelf, along which we picked our way until we found a somewhat elevated terraced tower over by the higher crags, on which grew great tufts of mountain grass, and there we tethered our saddle animals in order that they might graze whilst we explored on foot the more wonderful shelves and niches that appeared above us. Higher up was a niche worn straight through the red rock mountain and giving access to this northern side as though tunnelled for that purpose. This northern face was worn deeply hollow, so that it formed a great cave or rock-shelter, in a recess of which I was fortunate to discover a rude cist of stone containing an antelope-head mask and some little sacrificial feathers and beads.

Returning to the southern face of the rock and climbing somewhat higher, we found a great hole through an upper cone of the crest,<sup>76</sup> as it were, occupying the center of another hollow or rock-shelter, and cut so cleanly through that we might sit there and view as through a window the whole northern landscape—plains below of sage-brush and grease-wood slopes beyond wooded over with stunted vegetation, and rising from these range after range of foothills, then mountains, until the Sunflower Peaks were reached, cutting off the northern view. Very far away, miles and miles, but quite distinctly visible in this wonderful southwestern sunlight, lay, on the top of an eminence, traces, to my eye, of a fortification or rock-walled village, not unlike those we had examined at Prescott and Eylar Ranch.

Turning back and looking southward we could see, all more plainly now, not only the features of landscape I have described as seen from our camp, with the exception of those seen toward the east which were cut off by the succession of crags leading up to this one which we had followed, but also the great yellow mounds of Los Pueblitos, even the mound beyond, near Tempe,<sup>77</sup> and Los Hornos, which seemed, thus beheld, to be all of them parts of a system of towns as the scattered mounds of Los Pueblitos themselves had seemed to be parts of a single town.

In approaching this vantage ground we had surprised two Pima boys casting stones apparently into the roof of one of these great rock-shelters. They had fled

away immediately on our approach, disappearing down the slope as absolutely as frightened rabbits or deer in a forest. But on reaching the spot we discovered that not only was there a window in this side, but also a skylight in its ceiling or roof, tunneled, it seemed by the wind-whirled sand. In the floor of this place I discovered numerous little cup-like excavations, and here and there several hollows polished or ground by use — though now much roughened probably by centuries of exposure — which had been used in far off times for the grinding of colors in the preparation of pigments for sacrificial objects and in the painting, no doubt, of petrographs, traces of which merely remained, even though once deeply cut into the rock.

Issuing forth from this hollow cave which, like the one on the opposite side, occurred just above the shelf of red rock whence the talus sloped away like the side of a great steep hill and was literally overrun with chollas, we made our way across toward a higher portion of the same crag, far up in the side of which I saw the mouth of a cave or grotto like a vertical cleft, yet looking not unpromising to my eye. Our progress was exceedingly slow in consequence of the chollas already referred to, which clung to our clothing and pierced even the leather of our shoes, and consequently we had to stop frequently and relieve each other of the sharp spines. Yet nevertheless Miss Magill's sharp eyes discovered fragments of pottery just below where the cleft occurred of the ordinary red but ancient sort, which seemed to me a further indication of the use of the cleft above as a shrine or place of sacrifice. We therefore continued until a narrow way was found, up which, with considerable difficulty, I succeeded in climbing, but which did not afford me ready enough approach to the cave. I climbed, however, to the wind-swept top of the craggy tower, being bare alike of soil and vegetation save here and there a bunch of mountain grass in a cleft. But on it, near a giggy corner, for the top was flat like that of a rough table, lay three or four stones much worn by exposure, and near them was a round hollow which may have served either as a mortar or for the reception of sacrificial water. Lying flat and peering over the edge I could get better sight of the mouth of this supposed cave. Whilst like so many of these caves in the Southwest it had been burned in order that the rats might be driven out or the flames witnessed. A further search down the side revealed, however, what seemed to be faint traces of step-niches, such as so often occur well preserved in the far north leading up to mesa or cliff ruins; and looking down directly upon the slope at the base of the crag I caught sight of two or three fragments of very old, worked sticks and one, which I could not quite make out, that seemed more

perfect. On making my way down I found that this was a wonderfully well preserved spade-like agricultural implement of undoubted antiquity. The blade of it was about five or six inches broad by six or seven inches in length, like the blade of a Zuñi oven shovel; the handle as many feet long, worked down to a blunt point most obviously with stone implements, smoothed with rasps also of sandstone, and much furred against the grain by use as a digging stick. Very probably the last uses of this implement had been made in this region, for both the shovel edge and the handle point were driven full of cholla spines, all very old; and I could not doubt that the implement, first laid by in the sacrificial grotto above, had been thrown down either by burrowing animals, by the wind, in the falling away of the rock, or by the depredators who had burned out the cave. It formed our first most precious specimen and was carried by us very tenderly and very triumphantly throughout all the rest of the day's explorations.

When, as month succeeded month, I discovered the essentially agricultural nature of the populations of that valley, this specimen not only filled up a great gap but, partially filled with the wasted remains dug up from the ancient house-sites, but it also helped to explain how, as weapons and blades, some of the implements we discovered had been used.

When we had returned to our saddle animals and were about to descend farther toward the west in order, if possible, to pay another visit to Los Pueblitos, we had to burn our way slowly down the slope through the cacti. This was tedious, yet magnificent work, for the spines alike of the Saguaro, cholla and other cacti of this region burn like resin with flames of the most beautiful colors which spread rapidly from one branch to another until a whole cactus tree will seem to be a pillar of fire with a heart of night.

After we had regained the wide terraces below we threaded our way for two or three miles southward through the forest of cacti and palo-verde until we came out into a road, which, happily, for us, seemed to lead directly down toward the ruins of Pueblitos. Finding that Miss Magill was as eager for further exploration as myself, we galloped down to the ancient "City of Towns."

It was my happy fortune this day to find that some of the mounds had finely preserved walls, well plastered within, and that there was a class of mounds between the house-mounds, lower and somewhat smaller and rounder, on the surfaces of which we found fragments of bone, pottery, and numberless pieces of shell ornaments, all having been much burned and in many cases fully calcined, yet the full meaning of which peculiar mounds I did not at once understand.

Furthermore, I discovered that both these mounds and the house mounds extended very much farther toward the east than I had before observed, making the assemblage of ruins seem more like those of a really vast city, at least in extent, than ever.

With the sinking of the sun we were forced most reluctantly to turn back toward camp, but with the full determination of returning as soon as might be to explore this in many ways most interesting of all ancient ruins I had ever examined.

The sun was still quite warm when we reached camp, and the light brilliantly ruddy yet clear. But as the night wore on it became quite cold—so much so that we were glad to keep our fires burning briskly.

Alas for my intention, however, for during the night I was seized with one of my most violent attacks, which lasted throughout the entire day following (*Friday, Feb. 18, 1887*). But work in the camp went on uninterruptedly, Mr. Hodge writing all day the letters transmitting checks, etc., Mr. Garlick in making a secretary, or traveling desk for him, Miss Magill a good part of the time in sketching, from camp, the red rock bluffs we had explored, and the Indians, as usual, in herding the stock up the river, and no doubt visiting the Pimas and hunting, for Weta came in that evening with a fine wild duck he had shot, which was, forthwith, possessed, so far as its fleshly part was concerned, by Dah Yung; as for the feathers, they helped to swell Mr. Hodge's meager pillow.

During the evening my attack was so violent that I had to be supported, and it did not seem as though I could have passed the night without the kindly care that Mr. Hodge and the ladies, and, in fact, all gave me. But I can recall that the chief of my suffering after all was the fear that these sort of attacks did materially interrupt our explorations and researches.

Nevertheless, during the next day (*Saturday, Feb. 19, 1887*) I was very much better, and even though I could not sally forth to Pueblitos or elsewhere, I found abundant interest at camp, as there ever was abundant occupation for every waking hour. In the first place, owing to another escapade of the untamed "Red," we found it necessary to brand all our animals, a piece of work that was accomplished quite deftly by Mr. Garlick and Mr. Hodge, notwithstanding the remonstrance, which was excessive on the part of some of the mules. Attracted by this, and doubtless also by the tales told of us by other members of their tribe, a great many Pima boys and young men gathered early in camp. They were most of them costumed meagerly in very large, flowing breech-clouts, some with and some

without the ordinary calico shifts. Their faces were painted dark red to protect them from the sun, and they all carried bows and arrows, still their chief weapon.

I was interested to see what impression my knowledge of archery would have upon them, and therefore, during the lull at dinner time, brought out my fine English lancewood and yew bows, of which we carried three. The Indians were astounded to see me draw off and shoot my arrows, which were iron pointed, into the saguaros, as no doubt they had never before seen an American who understood the use of the bow.

We had little difficulty in inducing them to shoot a match for five-cent pieces set up on moderately small marks, and I found them by far the best Indian archers—certainly so at considerable distances—I had ever seen. This is easily accounted for in that they carry the nearest approach to the long bow one can see among our modern Indian tribes, the use of the bow on horseback having, even here in the Southwest where once the long bow prevailed, greatly curtailed its length.

It was interesting to note, also, that these people employed both the secondary and tertiary releases of the bow-string, as classified by Prof. Edward S. Morse, in his interesting paper on the subject of primitive archery,<sup>78</sup> and I found them, at least the best archers among them, not at all slow to adopt the Mediterranean release, or the Norman, as one might say, which I employed.

The arrows of the Pimas are long, exceedingly well made, and quite brightly though rather crudely painted. It was noticeable that many of the arrows were winged with only two feathers like those of the extreme western Eskimo and some other tribes of the Northwest Coast, whilst others were feathered in the ordinary way. They admired excessively my round, iron-pointed arrows, which were but an adaptation of the Indian arrow made by myself—and were eager to trade some of their finest specimens for them. Observing in the bundles of two or three, examples with tips of chipped glass, I was not less eager for the barter than they, for I had not supposed that tribes, at least so far within our territory, still used, much less made, arrows with points of chipped material.

Two or three of the brightest of the young Pimas remained behind the party when they set off as a band—for this was evidently a communal rabbit hunt—and one of these young men, bright-faced and pleasant, understood a few words of English and was exceedingly attentive in teaching the Pima equivalents to Miss Magill. He was so much impressed with her, indeed, and with her wonderful pronunciation of Pima words, that he evidently told his mother all about it, for later in the day that veritable lady, quite well dressed for a Pima woman, came

to our camp and sought out Miss Magill, and without even so much as a single inquiry she and her companion, a woman somewhat younger, were so impressed also with Miss Magill's rapid acquisition of her language that she clasped her hands, holding them down to her sides, talked rapidly and softly all the while, and then, by signs, told her to come over and dwell in their villages, become a member of their tribe, marry there, as became such a good-hearted and really Indian sort of girl far more than to dwell amongst Americans in shifting canvas houses.

All day many of these Pimas continued to come to visit us until they became somewhat annoying. Miss Magill, however, made an important discovery, for in endeavoring to sketch them she evidently touched a very sensitive point in their feelings, for no sooner would she equip herself with pencil and paper than they would scatter; so whenever they became too importunate for tobacco or bread she had only to appear with her artist material to quite clear the camp of their presence.

I was still by no means well when evening closed in upon us; but with the next day (*Sunday, Feb. 20, 1887*) felt quite well enough, should the weather continue fine, to make another reconnoissance of Los Pueblitos.

All of us except Mr. Hodge spent the morning resting or reading, he going forth for a little hunting. As the day advanced the sunshine became so warm when one sat long in it that the buttons on our clothes were too hot for handling comfortably, and yet the air was by no means oppressive.

When, after luncheon, I prepared to make a saddle trip to Los Pueblitos, Miss Magill joined me; and as Douglas was now well rested from our long journey and exceedingly fresh, he pranced away, taking the lead, Daisy, my mule, ever eager to keep close to him, following.

It seemed but a few moments ere we were descending the slopes that extended from the northern boundary of the valley down to Los Pueblitos. We found to-day even a more extensive area covered by the house elevations, and that in many parts, but cursorily examined before, there were houses or blocks of houses marked by elevations so slight that they had quite escaped my attention previously; so that the number of blocks composing this city of such ruins seemed almost double what we had supposed it before. Great stretches of this area were literally covered with potsherds gleaming in the sun, and there were fragmentary, black, chipped pebble tools innumerable. We even discovered on the surface two or three perfect stone axes—one unfinished, to be sure, but most interesting as

illustrative of stone-working processes. The decorated potsherds were fragments of two classes of pottery, at least, one painted on slip-finished ground, white, gray, or red, in quite a variety of clay and ocher colors which were laid on with extreme delicacy and in designs not only exactly similar in many cases to those of pottery to the farther north, but identical in symbolic motive with comparatively modern Zuñi pottery. The other class of pottery seemed to be peculiar to this region, and was much more frequently met with round about the outlying house sites than in the central portions of the ruins. This pottery, although finished in slip, was rarely polished, usually showing a creamy gray ground and charming, perfectly free-handed decorations, like brush decorations of the Japanese indeed in dark purplish or magenta red. A much greater variety of design was visible in this class of pottery than in the finer specimens, the range of devices and the subjects or symbols chosen for illustration being in the latter definitely limited; whereas in the cruder, single colored specimens representations of bird and little animal devices were not infrequently to be found.

Of such extreme value were these potsherds, therefore, in settling the story not only of the art and industries of this people and of the evolution of their art as well, but also a great deal of their daily life and many facts even (interpreted by my knowledge of Zuñi specimens) of their religious rites and mythical conceptions.

It may be well imagined, then, with what interest we went from one house site to another and from one refuse pile to another in our eager search for more and more of this olden story, finding it written not merely in the potsherds themselves but also in the fragmentary yet still very satisfactory examples of shell and sometimes of bone ornaments carved and beautifully polished, of which we picked up not a few.

In one high mound—higher than all the rest—something like half a mile to the rear of the great central mound facing the road,<sup>79</sup> we found that others had excavated before us; not enough to destroy the interest of the place, probably in search for pleasure but soon abandoned. The whole mound was composed of the still high-standing walls of a house, once of three or four stories in height, and the debris from the waste of its upper stories. A large stretch of wall was exposed in one place, and descending I found that in some way this house, which had evidently been an important one to the ancient inhabitants—possibly a sort of estufa or temple—had been thrown down, then repaired, then again thrown down and a second time repaired and buttressed, after which, although abandoned, the place as a whole was long occupied and this deserted house left open to the intrusions



and plays of prehistoric children, who had not failed to amuse themselves, as do the children of modern Zuñi when they find a deserted house, with etching or incising upon its smooth walls the dance figures or the doings of the day in which they lived.<sup>80</sup> The story of the daily life as well as of the child life of these people deducible from these crude drawings on the walls of a deserted house in a living town is of such importance that I shall give it more space and consideration when the summing up of the characteristics of these ancient Saladanos is undertaken later on. That even such details as these, and the finger marks of the primitive builders which were plainly visible in the plastering where the walls had been repaired, should be so well preserved by the sifting in and around the walls of drifted soil and fallen debris gave greater hopes than ever to me for the future of our explorations when we should be able to properly excavate such places.

These ruins were threaded by arroyos everywhere, but particularly along the eastern side I observed one arroya much straighter than any of the others, leading down apparently toward the great mound, and I inferred that it had been, perhaps, an ancient canal at one time, deepened and preserved by the natural trend of the waters here where the slope was considerable, and later results proved this surmise to be correct. At any rate we followed it down nearly to the great mound by the roadside, and there discovered an enormous circular or oval elevation. On riding to the top of it I found that it was hollow or open within, like a great flattened Coliseum, and in common with most other observers I inferred at the time that it had been a great reservoir to which, possibly, this great reservoir or canal had led.<sup>81</sup> But later researches proved this inference to have been probably mistaken.

At last, as the day was closing, we were compelled to turn toward camp again, and as we rode up the gentle slopes one above another to the top of the river terraces, on one of which our camp was situated, and turned to look back over the scene, luminated as it was by the setting sun, we could now with clearer eyes see these mounds and mound, albeit so low-lying, of house ruins stretching away literally as far, especially northward, as the eye could reach at one view.

Greatly attracted, not only by the interest in the surface collection we had gathered, but also by the desire to see more of the etchings in the ruined house we had found, I determined to visit it with tools for excavation on the very day following, if possible.<sup>82</sup>

All of Monday morning (*Feb. 21, 1887*) we were occupied about camps, Messrs. Garlick and Hodge making a trip to town for mail, provision supplies, etc., whilst

I was occupied with writing up some notes on recent explorations, and Miss Magill was busy acquiring new words in the Pima language. She took advantage during nearly the whole morning of a call, yet again made on her, by the mother of the pleasant young man, accompanied this time not only by an aunt or some other relative of his, but also by the father. Her progress in the acquisition of Pima was so marked as to give great pleasure to her instructresses, who became not unpleasantly familiar but exceedingly tender toward her, and on the strength of her evident liking for the Pima language, inferred that she must equally like the Pimas themselves, for which reason, anxious to repeat her previous offer in more formal and characteristic style, she, with her companions, sought me out—probably regarding me as the representative of Miss Magill's father—to lay before me a proposition of adoption and marriage. This proposition, however, while courteously received by us, was evaded through pretense of not being well understood. But it served to hasten us off on an excursion I had planned for us all to Los Pueblitos.

In the ever useful buckboard we started at about noon, Mrs. Cushing, Miss Magill, myself, and as assistant, the willing Dah Yung, with pick, shovel and hoe, bent on excavation.

In approaching from the higher ground that surrounds the group along its eastern side, I observed an extremely interesting accumulation, evidently not modern, of highly colored, grotesquely eroded concretionary stones, probably from the upper sources of the river, here gathered in a little heap evidently to form a shrine of some sort.<sup>83</sup> Later on the full significance of these water shrines, as I may name them, was ascertained, and became a matter of great interest and importance to our researches. Not, perhaps, fully appreciating this at the time, we went on and attacked one of the more promising of the outlying mounds, Dah Yung in his enthusiasm plying the pick and shovel far more vigorously than was safe for any odd specimens we might encounter. Fortunately enough he broke only a few potsherds, of which we unearthed great numbers, some highly decorated, others plain, and all more perfect than those I have previously described. That mound on which we were at work, however, seemed rather to be an accumulation of ashes and what I supposed at the time was burnt refuse than the elevation marking the house site. It was honeycombed with the holes of the little jumping mouse of the Southwest, and other burrowers. Moreover, the ashes of which it was composed were so extremely soft that two or three times we broke through the surface sinking up to or above the knees in yielding soil. Shifting our

excavations from this to a more solid seeming mound we had the good fortune to discover traces of what seemed to be concrete or adobe-like soil in the first trench we opened. We discovered also not only a beautiful stone ornament, drilled for suspension, of a silvery gray schistose material, probably used as much as an amulet as for ornament; more than half of a beautifully polished shell bracelet, a very perfect bone awl, and great quantities of unfinished and broken stone implements as well as numerous fragments of shell beads, pendants, amulets, etc.<sup>84</sup>

As evening approached one of my severe attacks of illness came on, rendering it necessary for us to leave for camp before we had carried our results as far as I had wished, but not before I had become satisfied as to the expediency of securing men and excavating here somewhat more thoroughly as soon as possible.

We had a wonderfully pleasant and interesting ride up hill and down across country to camp, during the earlier part of which Miss Magill espied another shrine of the curiously marked and formed stones I have described.

On reaching camp I found that Mr. Hodge had unpacked and rearranged additional stationery material, and gave such attention as my illness would allow to our correspondence, etc.

During the night fortunately my illness wore away to some extent, and having become convinced of the richness of the Los Pueblitos cluster, for excavation, I wished now to ascertain whether this cluster was typical of others, as I had at first inferred, or was exceptionally extensive. I therefore decided to visit with all the members of the party, the far off mound we could always see from camp gleaming above the dark-hued chaparral across the plain south-southeastward near the slopes of the Maricopa Mountains.<sup>85</sup>

Mr. Garlick, therefore, made up a team of our four best road mules and the covered buckboard, and leaving Dah Yung to guard the camp, we all set forth.

On reaching the mound we found that, like the central mound of Los Pueblitos, it was a huge mass of debris from a once towering and extensive structure, and that it was surrounded to an almost equal extent by the characteristic elevations I have before described. The mound itself has been somewhat excavated by prospectors who, dreaming of buried treasure—gold and silver—had even gone so far as to “locate” a part of the ruin site as a mine. Their works, however, had not yet proven destructive to any extent, and outside of the great mound itself happily no excavating had been done, with but a single exception wholly to our advantage. I learned afterward from a young ranchman of the valley, named James C. Goodwin,—who became a very helpful friend to our researches—that

he had cleared out a rather remarkable subterranean structure, twenty or thirty rods west of the great mound.<sup>86</sup> It was an enormous, funnel-shaped, burned and blackened kiln-like cavity, carefully formed of fire-clay and natural cement which showed the action of innumerable fires. I could not, without much additional excavation, examine into the details of this, but it at once struck me as being a clan or tribal roasting pit, or, as I shall show later, possibly a furnace not unlike the underground corn ripening ovens of the Zuñis and the pits for baking mescal of the Apaches and more southern tribes. Examining the surroundings of this kiln, which had evidently been marked by a slight elevation, I found numerous fragments of highly vitrified slag and carbonaceous material, whereby I was able during the day to locate several other kilns, and therefore decided to name the place, it being scarcely less extensive than Los Pueblitos, "*El Ciudad de los Hornos*" — "The City of the Ovens."

I learned that these same excavations which had revealed this great underground oven and which we found in the principal mound had been started only recently after the arrival of our "antiquarian outfit," for the native opinion was to the effect that these ovens were "smelters," for reducing ores, probably silver or gold. Operations, however, had been suspended after the place was providently preempted, in order that my opinion might be consulted as to the correctness of this view. It required little argument on my part to convince those concerned that the place would produce few or no remains of the precious metals and my operations thenceforward were undisturbed.

These oven elevations differed from what I heretofore had supposed were the refuse mounds, being marked with quite distinct depressions at their centers. But their juxtaposition to these otherwise similar mounds of burnt material suggested to me that the latter were possibly sacrificial accumulations of cremated dead, and I was somewhat in doubt as to whether the ovens in question had been used in food preparation or for cremating.

Feeling that this subject could not be properly investigated without further excavation, I joined all the others in devoting my attention during the rest of our visit to seeking for surface finds. Our gathering of specimens on that day were far richer and interesting than those of any previous occasion since we had entered the field. They consisted not only of a superb collection of potsherds, broken and complete stone implements, ornaments, and amulets, but also a small collection of the most beautiful arrow points I had ever seen. One, found by Mrs. Cushing, and another by Mr. Hodge, were made of such beautiful varicolored opalescent

chalcedony that they were actually the rivals of precious jewels. We also discovered amongst quantities of broken and semi-calcined shell bracelets and other ornaments of marine shell, some exquisitely carved and polished, one or two examples of fetiches wrought in stone and resembling in almost every detail the characteristic hunter fetiches of the Zuñis.

Perhaps one of the most interesting objects of the surface finds of the day was a beautifully finished diorite ball, about three inches in diameter, showing a broad band of patina around its circumference, marking a surface roughened by use. This ball was discovered by Mr. Hodge on the flat near to a deep, thickly wooded and evidently artificial depression. The wear on this specimen evidenced, as I have explained, the circumstances of its finding revealed, two most important facts—the one that this was like the stones used by the Zuñis in their rain drama ceremonies—a “thunder ball”—and its occurrence not far from the depression to which I have alluded indicated to me at least that this, as well as others found in various parts of the cluster had been excavated for water storage.

Another particularly interesting specimen was discovered by Miss Magill—the half of a beautifully finished tufa ring, between two and three inches in diameter, which threw no less light upon the tribal games of the ancient inhabitants.

Here, as at Pueblitos, either from horseback or from the top of the great mound, these lesser elevations could be seen to extend in some directions almost as far as the eye could reach. We wandered so eagerly over mound after mound of this great group gleaming with potsherds in the light of the declining sun, that we were wearied long before evening and turned toward camp.

Just as the party left I climbed the great mound for a last look, in order that I might the better locate points for excavation, and I beheld across the valley, as though lifted by a mirage, the great central mound of Los Pueblitos. These, with others of which I had heard, struck me suddenly as possibly pertaining to a system like the system of pueblos which originally composed the “Seven Cities of Cibola” which I have identified with as many ruins of the Zuñi valley.<sup>87</sup> I had been long working upon the system of subdivision or distribution according to mythical regions and mythico-sociologic organization as possibly furnishing a key to the Pueblo, or as I now determined to call it, the *Aridian* culture remains. It occurred to me that if my sudden inference were true the shrines of sacrifice to the Six Regions—North, West, South, East, Upper and Lower,—would be distributed around each one of these ancient cities, as in Zuñi according to the cardinal points symbolized, and the intermediate points for the Upper and Lower. From where

I sat in my saddle I cast my eye, therefore, to these supposable points. Toward the north, nor very far away, stood the two great buttes I have already described—generally called in the valley, “Double Butte.” Possibly, thought I, these would contain caves, and if so sacrificial remains. I determined therefore, on the homeward way to make a detour from the road which passed “Double Butte” at no great distance and test this supposition or hypothesis. On reaching the base of the greater of these two buttes I saw an enormous cleft well up the steep side of it. Examining the surface below this cleft I discovered traces of ancient remains which had been seemingly washed from it, and no longer remained in doubt but climbed with might and main to the great vertical orifice in question. Alas! it had been burned out, like so many of these grottos in the Southwest; but entering it some feet and finding it larger than I had supposed, I prodded about in the dim light and the first specimen I discovered was a wand, quite well preserved by the niter and bat-lime of the cave, and by having lodged in a cleft from the fire, which I almost instantly recognized as a sacrifice of a prehistoric “Priesthood of the Bow.” Working only a few moments I found sacrificial cane cigarettes, characteristically bound with sacrificial cords, identical also with the priestly sacrifices even today—and other fragments of plume wands rewarded my search.

Most tenderly I gathered these things together, descended, mounted my horse, and galloped away to communicate this happy intelligence to the rest of our party. I veritably believe, though they did not know the significant facts and connections of which this find gave evidence, that each member of the party was as happy over the find as myself.

Very unfortunately for the ladies, and to Mr. Garlick’s annoyance, the little pockets which in traveling we were accustomed to attach to the sides of our buckboard, and which in resting found a ready place of attachment at the eaves of our tents, kept parting from their fastenings, so much so that I had no difficulty in overtaking the buckboard. Even afterward, when meeting a resident of that part of the valley—a certain very large, one-legged and extremely intelligent old gentleman named Doctor Gregg,<sup>88</sup> I was invited to come into his ranch and examine a little collection of curiosities and antiquities he had picked up. I found him an interesting man, and singularly enough a nephew of the celebrated author of a work we ethnologists all prize so highly—“Gregg’s Commerce of the Prairies.”<sup>89</sup> Besides telling me many interesting facts in regard to his uncles, he showed me quite a number of fossils and some especially fine archaeologic specimens which he had stored away in various nooks and corners about his ranch.

Perhaps as interesting a specimen as any he exhibited to me was found after a considerable search in a sort of smoke house amongst bolts and various other catch-all accumulations in an old tin pan. It was a remarkably fine fetich of shell, which a long time afterward the good Doctor presented to our collections. He had two or three other specimens of greater interest to himself than any of the rest, for on the evidence of them he stoutly maintained that the builders of the ancient mounds had been advanced metallurgists, as he believed that these heavy, quaint cup-shaped articles—the specimens in question—were cupels, a kind of crucible used by the western prospector in testing his ores. He very generously gave me one. It was sort of low, rounded, shallow cup composed of argillaceous cement, well burned, with a broad base and vertical, slightly concave sides, about three inches in diameter, and hatched for ornamentation and to facilitate handling around the circumference. Its considerable weight, and the wear in the bottom of the cup-shaped cavity plainly indicated that it was a spindle-whorl bowl.

During the afternoon the wind and dust had annoyed us considerably, and along the road, as we were faring in about four miles to Tempe it grew still worse. Nevertheless, on arriving at this singular little town, embowered in great cottonwood trees, we were so heartily invited to rest a few moments and exchange a few words with some of the principal inhabitants, that we did so, this being really our first visit in the town except for the most matter-of-fact business purposes.

By this time the people of the valley had become pretty generally informed as to the objects of our Expedition and its explorations, chiefly through the somewhat incorrect but most pleasantly written little article that resulted from Mr. McClintock's rainy-day interview.<sup>90</sup> As a consequence I received considerable information in regard to the location of other ruins of great central mounds—two occurring, I was told, west and north some five or six miles from Phoenix;<sup>91</sup> another, which I thought I had seen from camp, at Mesa City, the Mormon town, some nine miles eastward from Tempe, and yet other and lesser mounds. All this confirmed the idea that I had so forcefully conceived during the afternoon in regard to the pueblo or city system represented by these ancient places.

The river was so very high from a storm which we had seen playing in the mountains to the east during our excursion, that the water came up above the floor of our buckboard as we crossed, but we succeeded in getting to camp without much wetting, all of us happy and enthusiastic over the day's findings. Indeed, after supper we held a general council of inspection of the collection found, in the open space of our sheltering Sibley, at which the Indians did not scorn to be

present — were, in fact, most intelligent spectators and as interested as any of us, although on the mythologic side of their natures. Even Dah Yung presented his brown face and twinkling eyes at the door-flap more than once.

On making this more deliberate examination of the little collection, I found that it included, besides the specimens already mentioned, a very fine smaller stone ball, discovered also, I think, by Mr. Hodge, which plainly showed by the pecking about its periphery that it also had been enclosed in a band of raw-hide and which I then thought had been used as a war-club or sling-shot; but as I afterward learned that these people used the bola precisely as did the Peruvians, I presumed that this must have been a bola stone instead.

Amongst the mass of potsherds there were really finer specimens, that is, more elaborately decorated, especially of what I have called the free-hand class, than any we had yet found. There was also the fragment of what seemed to have been an effigy-formed paint-cup. Though we possessed less than half of the latter, it looked as though it might have been made to represent, though conventionally and clumsily enough, a turtle; and another half fragment also of a paint-cup was plain but quite well finished. These were heavy, much like the usual paint-cups of the Zuñis, and like the latter also showed wear on the bottoms where they had been moved about the cement or stone-paved floors.

The fragments of shell ornaments were quite numerous and more nearly entire than others we had yet found. All of them appeared to have been made of marine shells, and the finding amongst them of two perfect specimens from the Pacific Coast — a good sized bivalve and a medium sized but very perfect univalve — confirmed this view.

As to the specimens from the cave, on examining them more at leisure I was still more struck by their resemblance, in minute particulars, to articles of modern Zuñi production amongst the sacrificial paraphernalia, especially of the winter rites.

Like the cigarettes made of cane and filled with sacred (i.e., wild) tobacco at Zuñi — one being sacrificed for each man of a given society or order, both his [blank space in manuscript here] and personality being represented in them by diminutive, neatly woven, archaic shaped cotton breechcloths — so were these which I found that day, the weaving evidencing, if anything, greater advancement in the textile art than that attained by the Zuñis. I was overjoyed to find attached to some of these sacrificial cigarettes — notably such as were bound together in pairs and wrapped in a single miniature mantle of cotton — the little beads of turquoise



and white shell, which symbolize, respectively, the men and the women of the sacred societies. I now knew that I was on an important trail and determined to organize the work and push it more systematically than heretofore, and to give a larger degree of attention to these Salado ruins than I had hitherto intended to devote to them.

Throughout the evening Mr. Hodge and I, after the specimens had been carefully stored away and labeled, devoted ourselves to the writing of some letters to the home office, communicating somewhat of the interesting discoveries of the last few days of our sanguine hopes for the future.

Whilst Mr. Hodge was engaged in writing up notes of my dictation, and Mr. Garlick in making various repairs and arrangements about camp, taking Dah Yung with us Miss Magill and I visited Tempe with the intention of exploring the great butte that stood in front of the very doorways of the town, across the river from our camp. Stopping a few moments whilst some commissions were being attended to by the clerks of Hayden's store, we amused ourselves by watching a crowd of Pimas, mostly women and children of various ages, gathered along the roadside. They were grotesquely picturesque in their tatters and rags of American material, some of them being very elaborately clad in sheets or mantles composed of bandana handkerchiefs, old, highly-colored tablecloths, and the like. Whenever occasion demanded, the women, without hesitation or abandonment, bared their breasts and suckled their children, resting the latter on their hips very much after the fashion of African mothers. They were evidently not the best of their tribe, but were nevertheless interesting to observe.

The faces of these women were as grotesquely painted as were those of the men, possibly because of some recent or nearly prospective gala or ceremonial occasion. I was greatly interested to note, on the shoulder of one of the women, a little tattooed design representing the fylfot figure or cross probably symbolizing to the Pimas the four winds, as on ancient pottery and pictographs and even on modern Zuñi ornaments, etc.

But not remaining long in the town Miss Magill and I drove as far as we could to the steep slope of the butte until reaching, a third of the way up, a sort of shelf or terrace where the animals could rest, and where, indeed, further progress with the buckboard was impossible, we tied our mules to a sage-bush and scaled the height, now clambering over, now stepping from one to another of great angular boulders or fragments of the shining black lava of which the butte was mainly composed.

On nearing the top we found that it was not quite so pointed as it seemed from below, there being quite a little area, nearly level, the surrounding rocks of which were covered with pictographs. Amongst these it was interesting to note the characteristic dragon-fly symbol of summer rains, the zigzag lightning serpent, the whirlwind symbol or volute, representations of the mountain sheep, of lizards, of dance-figures—most especially interesting these latter—and also a little figure precisely like that which I have described as tattooed on the Pima woman's arm, and which here evidently had the significance that I attached to it there. Mr. Hodge tells me that it is the figure he finds on a tribal shield he subsequently procured from a Pima warrior. This would lead me to suppose that it may not, in this special case, have had the significance that I have attributed to it. My investigations relative to the Pimas, always merely casual, leave me in doubt in regard to the question.

Miss Magill, wonderfully active and always the best of explorers, volunteered to examine the southern face of the mountain slope whilst I went around to the rougher northern side in order to see at last, if possible, [if] the little grotto I had observed from camp on the first morning after our arrival there, were (as I quite confidently expected to find it) a place of sacrifice. The way was tremendously difficult and risky, but I at last succeeded, by dint of much effort and at the pain of a severe headache, in reaching it, and although much impeded by the ever present cholla and other cactus spines, succeeded here also in finding four or five plume sticks, and was, on account of these cactus spines, the more content to leave it for future examination. Returning to the top I rejoined Miss Magill, who had discovered several grottos on her side of the mountain but none containing anything as far as she could see. I found her sitting in an artificial hollow place that looked very much as if it had formed a prehistoric seat, and along side of it was rock containing grooves and grinding places, and marked, moreover with the curve-armed cross I have described. For this and for other reasons quite in accord with ancient Pueblo ways of thinking, I concluded that this place served, as indeed it is safe to say almost all such isolated and prominent buttes and mesas throughout the Southwest served, as a shrine or point of sacrifice and ceremonial, and that the very considerable marks made by the use of these rocks in grinding, indicated, probably, that ceremonial weapons had been made or sharpened there that they might gain the more of keenness and power from the winds of these sacred heights.

There were faint traces—a little doubtful, to be sure, but I think conclusive

enough—that the place had been once rudely fortified, and perhaps to some extent inhabited, at any rate for short periods.

Down in the talus, some feet lower, on natural terraces or shelves could be found quite abundant fragments of rather plain, coarse and ancient pottery, very much like that of Eylar Ranch and the hill pueblos or corrals farther north. There were also abundant fragments of marine shells, but these probably had been brought there for finishing under circumstances to which I have already alluded.

Descending to the place where we had hitched our mules, we found by the tracks left that they had made a short turn and descended, evidently with great rapidity, to the town. I fancied that we would find the buckboard sadly demolished and the mules injured until Miss Magill espied them quietly standing by the side of the road in the center of the town.

It had been excessively warm on top of the butte. Now that the sun had set and the wind was blowing in our faces so that we could not get advantage of the heat radiated from the rocks, it was very chilly, and we hastened down and returned to camp as speedily as possible, which we learned had been visited by considerable delegations of Pimas with baskets of wondrous beauty, bows, and especially arrows—our purchase of some a few days since having created a sudden market for them.

Mr. Hodge and I, later in the evening, labored with our accounts.

Notwithstanding the chill of the evening the night was very pleasant and the day (*Thursday, February 24, 1887*) dawned beautifully—so much so that I decided to visit again Los Hornos, in which place I had become extremely interested. As Mr. Hodge had mainly completed his work on the dictated notes during the morning, in which I had been busy receiving a delegation of Pimas, Mrs. Cushing in attending to details of our tent housekeeping, and Miss Magill in pursuing her studies of the Pima language and in sketching some of the specimens recently found, we were able to make an early noon start for the ruins.

The drive of four miles from Tempe was delightful, and our searches about the various mounds were rewarded by finds not less rich than on occasion of our first visit. Indeed, we discovered finer shell ornaments, some exceedingly good specimens of grooved stone axes, and Miss Magill discovered a very beautiful, half-drilled turquoise pendant like those of the Zuñis and other Pueblo people. I was, however, taken extremely ill in the very midst of our searchings; so much so that Mr. Hodge had to ride to the nearest ranch—a curious little place beyond and below the great mound—for water with which I could be treated. But as

soon as I was able to move we started to camp by way of this ranch in order to return the little pail we had borrowed.

The pleasant little woman who was in charge during the absence of her husband, Irish evidently and very talkative, speedily brought forth a little handful of charming specimens, including two or three fine arrow points, some carved and quite perfect shell ear or nose pendants—one representing a stork on the wing—and some choice pieces of pottery, amongst which were some spindle-whorls and some gaming disks, the latter both perforated and plain. She very freely gave me these specimens, for which I amply rewarded her little boy who promised, with his brother, to search diligently for more.

Merely stopping to get our mail at the post-office we returned to camp, and as night came on I became so extremely ill that no further work was possible.

During the next day (*Friday, February 25, 1887*) Mr. Hodge devoted his entire time in working up the expense accounts that we had been engaged upon in recent evenings, and as the day, though bright, was windy, and I continued quite ill, none of us ventured forth for exploring.

We rearranged the little curtained niches of our tent today, placing things in somewhat better order. Toward evening Mr. Herbert Patrick,<sup>92</sup> surveyor of the proposed railroad route from Maricopa on the Southern Pacific to Phoenix, called and introduced himself as very much interested in the archaeology of this section of country and as a collector of relics from the mounds and ruins of which, he assured me, he possessed quite a fine and extensive cabinet. He remained with us at supper and passed the evening in our tent, giving me much information as to ruin sites and other archaeological features of the valley and the contiguous Gila country; and in taking leave of us cordially invited us to call at his house on the morrow and examine his collection as well as the mound I have mentioned as being the first one seen on our way out from Phoenix, and which we then and there decided to name, should it prove to be the center of another little city group of ruins, "El Pueblo del Patricio,"—in honor of its owner.

During all of the following day (*Saturday, Feb. 26, 1887*) Mr. Hodge continued on our accounts, etc., whilst I was still too ill to do more than to make a few notes relative to our recent finds. Mr. Garlick had announced on the previous night his intention of making a very early start for Phoenix to purchase supplies, etc.; but we were all up long before he was ready, as he persisted in saying "at a remarkably early hour," in order to cover with grace the delay of his departure.

The day was so exceedingly warm that, toward noon, notwithstanding much

wind, our tents became almost unendurable, and I began to plan having a genuine ramada, such as one sees occasionally in this country amongst the Mexican or Pima settlements. These are composed of poles laid on upright crotches, and covered with straw, cane-brake, and brush—hence the name. These shelters or ramadas are also sometimes more permanently roofed by having a covering of dirt.

I have failed to mention heretofore that earlier in the week a young man from Missouri, a very energetic and intelligent ranchero, Mr. James Cooper Goodwin, had called one day during my absence and arranged with Mr. Hodge to meet me at an early day, and kindly offered not only to guide us to interesting ruins in the neighborhood of his ranch, but also to serve us in any way possible. Subsequently he called, one morning just as we were about to leave for one of our excursions to Los Hornos, wishing to appoint a time when I would go for an exploration with him, and again very kindly offering his services. Feeling the necessity, which increased with the growing warmth of the seasons, of having a ramada constructed, I was fortunate in securing Mr. Goodwin's assistance, along with that of Messrs. Armstrong and Hayden,<sup>93</sup> of Tempe, in seeking for particularly good native Mexican laborers.<sup>94</sup>

Late in the afternoon our late acquaintance, Mr. Patrick, called with the hope of inducing us to visit him and examine his collection. As the ladies were not in readiness, however, I accompanied him on horseback, but we did not reach his home in time to make much of an examination of his collection, or of the fine mound which I have mentioned as lying to the rear of his residence.<sup>95</sup> I decided, therefore, to call at an early day, having been cordially invited to do so, and make a more thorough study of his really interesting accumulation of relics.

Reaching camp a little after sunset I found that Mr. Garlick had returned, and also that the Indians had come in from herding the animals, We-ta having shot not fewer than eleven ducks, with which our larder was welcomely replenished. I was also informed that Mr. Goodwin had visited camp during my absence, reporting that our friend, Mr. Armstrong, had found one, and he another most excellent man—the first being Francisco Ruellas and the second a certain Jesús Arros.<sup>96</sup> As, however, we could not avail ourselves of these men until the following Monday, I decided, if possible, to accept Mr. Goodwin's offer and accompany him on the morrow, this (Sunday) being a free day for him.

It dawned (*Feb. 27*) as beautifully as the previous few days—with considerable wind, to be sure, but very bright and sun-shiny; so much so, indeed, that it

soon became almost unendurably warm. After seeing matters set to rights in the camp, and placing Dah Yung in charge, all of us—including the Indians, We-ta and Si-wa-ti-tsai-lu—prepared to accompany Mr. Goodwin on the excursion he was so anxious for me to make with him.

During the morning he appeared on horseback, and I joined him, also in the saddle, followed by We-ta and Si-wa-ti-tsai-lu, the rest of the party, including not only Mr. Hodge and the ladies, but also Mr. Garlick, bringing up the rear in our large covered buckboard. Therein was stored provision for luncheon, and what we usually had reason to expect would prove a sufficient supply of water for the day.

I had barely ridden into Tempe before I was seized with a severe illness; but Mrs. Cushing had happily thought to provide medicines for the journey, by means of which, within an hour or two, I was so far recovered that we were able to proceed.

Driving over the level country that lay between Tempe and the ruins of Los Hornos, which we determined first to visit, was exceedingly pleasant in the wind, not yet grown strong enough to raise great clouds of dust, and we accomplished the four miles of this part of the drive in excellent time.

At Los Hornos we spent an hour or two searching the surface of the mounds and examining with Mr. Goodwin the “smelter,” as he had insisted in calling it, which I have already mentioned as first unearthed by him and his companions. He was now further inclined to my view of the subject, and ready, he assured me, to abandon all claim, together with his companions in the enterprise, to the place as a mining location.

Whilst all the rest of the party were continuing enthusiastically these surface searchings, Mr. Goodwin [and I] undertook a trip by ourselves to what he regarded as either the so-called pocket or surface mine, or else to other and lesser ovens or smelters in the sides of the foot-hills at the turning point of the Maricopa Mountains, just above the Los Hornos group of ruins. It was, perhaps, a little more than half a mile from the camp that we came upon a high ridge or elongated knoll leading down from the mountains, the side slopes of which, especially those toward the north, were fairly honeycombed with excavations. On examining these closely I found that they had been at least surface quarries covering, on these, and other slopes in the neighborhood, vast areas considering the difficulties which the ancient people must have encountered in mining here. That they were ancient was evidenced by the presence of huge chipped boulder digging im-

plements, mauls, etc., and most undoubtedly they were dug in bequest either of copper or silver ore, of which the excavated rocks showed abundant traces, especially of the latter, or else for the brown chloride by which this was indicated for use possibly as a pottery pigment.

Whilst these pockets in the slopes of the Maricopa foot-hills were by no means smelters and showed no traces whatsoever of fire, a very significant fact was the finding at the base of the hill on which the principal group occurred, [of] an enormous and exceedingly well built underground kiln or oven of precisely the kind I have described as occurring in the midst of the Los Hornos ruins. Of course on that occasion excavation was impossible, but the quantities of slag lying about indicated that this place had been used not only repeatedly and for considerable periods, but that fires of intense heat had been employed in it, possibly in the roasting of the mineral material quarried or mined from the slopes of the hills. I could not, however, continue my explorations or examination of this place longer, as I was again seized with a violent attack of illness and was forced rather suddenly to return to the rest of the party.

On reaching the buckboard [I tried] to get water with which to relieve myself by the lavage to which it was constantly necessary to resort, throughout the entire duration of our explorations. Unfortunately, however, Mr. Garlick had not provided so much water as we supposed, or else the day, being exceedingly warm, it had all been consumed. This led to considerable delay so that it was fully two o'clock before we were able to resume our journey and to follow Mr. Goodwin whither he might lead us.

When the various members of the party gathered at the buckboard, they came with well-filled receptacles. It had been our custom to carry on these excursions the leather-bottomed, well-made canvas nose-bags with which the animals were fed their grain, and many of these were more than half-filled with admirable specimens—Spindle-whorls, broken stone implements, etc. We-ta and Si-wa-ti-tsai-lu were especially successful in their searchings for specimens, one of them finding a beautiful, flat, gray schistose fetich in the form of a flying eagle, quite vigorously modeled, the details having been finished in incised lines and notches so that on the upper side the wings and wing feathers were thus indicated and on the under side the legs and claws drawn up as if for seizing prey.

As soon as I was sufficiently recovered from my attack we again set forth under Mr. Goodwin's guidance, taking the old freight road between Maricopa station, on the Southern Pacific Railroad, to Phoenix, which here ran due north

and south. We had progressed only about a mile southward when the buckboard jolted over a ridge in the road. I would not have noticed this had it not again jolted a few feet farther on and yet again still farther along. I stopped to examine these ridges. They ran directly across the road which here I found led over the lowermost and eastern portion of a very considerable elevation. Looking off across the plain I discovered many slighter elevations, nearly all of which had been extensively burrowed in by the little jumping mouse so abundant in that region. I did not know then that these little creatures, which our Mexicans called *juancitos* ("little johnnies")—we encountered them so frequently in the excavations afterward—were almost always to be found exclusively inhabiting regions where ruins occurred, so closely confining themselves to the buried walls of these that their burrowing formed, indeed, afterward my best guide to the discovery of buried towns and cities. Nevertheless, I inferred that these slight elevations, since nearly everywhere in the bright sunlight potsherds gleamed upon and between them, marked the sites of houses or at least of foundations of such, and at once concluded that, the ridges in the road were caused by walls of unusually solid concrete or adobe work. A closer examination confirmed me in this, but I held my peace in regard to it, thinking that the place would prove exceedingly rich, judging by surface indications.

We had gone on but a little farther when I discovered near the edge of one of these small mounds, which to eyes untrained would not even have been apparent, so slight were they, a beautifully polished stone axe and, still a little farther, I picked up quite an interesting reddish tufa cup, very rudely carved to represent a turtle.

Continuing down the Maricopa road some three miles farther we were guided from it into a less well broken road leading off amongst almost uninterrupted stretches of mesquite forest. Along either side of our way, here and there, might be seen great breadths of barren soil, level as a floor, white, in places sparkling from the alkali mingled with it, where, evidently in times of flood, water surcharged with this mineral had stood depositing it evenly, and as I afterward learned, sometimes to great depths in this soil. On these spots no mesquite or even chaparral could grow, and seen at a distance, gleaming amongst dark leaved trees they seemed marvelously like broad sheets of water or little woodland lakes. No water was to be found, however, far nor near, for want of which, the day having grown excessively hot, we were nearly famished.

Presently we came out on a somewhat cleared space, about half a mile wide by



a mile in length, near the farther end of which stood an adobe ranch. Approaching this we found it was the dwelling place of a "neighbor" of Mr. Goodwin's, named Cartledge.<sup>97</sup> We pushed forward eagerly, hoping to find drinking water here, but we found the well, which just now furnished the sole supply,—the new irrigating ditches, according to their constant custom, having broken out above—was almost briny with alkali. Mr. Goodwin, however, partly reassured us (I noticed faintly) that the water at his own place would prove better.

So we pushed on, now through a very ancient forest of mesquites, much larger than we had yet seen. We had to thread our way hither and thither through this desert jungle, which was everywhere crossed by wagon trails diagonally, for something like three-fourths of a mile farther, when we came out upon another clearing, even more solitary, and the last of its kind between us and the Gila on the south, or between where we were and the line of Mesa City, miles away to the east.

We found that Mr. Goodwin's place was, after the fashion, a rudely constructed though substantial enough wooden building, unlike most of the ranches we had passed, flanked by a very long ramada of brushwood or straw, under which stood his vehicles and agricultural implements.

The place did not seem inviting, and the ladies were fain to take their places in the buckboard; but I responded to Mr. Goodwin's invitation and accompanied him indoors. We found that the water in his well was positive brine, not a drop of it to be drunk through dread of greater thirst than that from which we were suffering. In his best room he had a really beautiful collection of relics which he had collected at Los Hornos, as well as, he stated, at the ruin he wished me to examine, merely a quarter of a mile, he said, straight eastward through the mesquites. One of the specimens procured at the latter place was a superb, spheroidal, small-mouthed jar of peculiar gray biscuit ware, such as I have mentioned as prevailing among the smaller house mounds and on the supposed refuse-heaps. This little jar was quite elaborately and skillfully decorated, and this, together with a spindle whorl, remarkable in that a fragment of the mesquite spindle yet remained in its perforation like the larger and rougher spindles from Peruvian graves, as well as two or three beautiful stone implements, Mr. Goodwin generously presented to me for the Expedition.

Bestowing these specimens most carefully in the buckboard, the jar into the hands of one of the ladies, we began our journey through the mesquites to the ancient ruin to which Mr. Goodwin had referred. Our way was exceedingly dif-

ficult, for here the mesquites studded the ground so thickly that our buckboard could not follow a straight road of ground two rods in any direction. After a while, however, that is, after proceeding about twice as far as Mr. Goodwin in his eagerness to have us persevere had stated the distance, we came out upon a slightly elevated section of land where the mesquites grew less frequently. Standing there above the tree tops high and grand was a great reddish yellow mound of the type I have repeatedly described heretofore, gleaming still redder in the rays of the sinking sun.

On visiting this mound I found that while not so high or quite so extensive as either the temple mound at Los Pueblitos or at Los Hornos, it was even more evidently made of the debris of a once lofty and massive structure. Nor had any excavating been done here or in any direction round about with the exception of two small holes which had been dug by Mr. Goodwin and his brother, in the first of which, near the base of the great mound, had been discovered bones—some of human beings, but in the main those of the antelope. A survey of the surrounding country from the summit of this mound, so far as the mesquite trees would admit of it,—particularly toward the northeast and off to the south-southwest—displayed long ranges of what I had come to designate “house mounds,” but what seemed here, even more than in the other ancient city sites, mere natural elevations. Between these house mounds might be seen on every hand, as far away as the eye could reach, the peculiar gray well-burrowed mounds of dark ashes and burnt objects. These were here far more elevated and marked than in any place yet examined by us.

Leaving my horse at the buckboard I set forth to make a general survey of these mounds. Nearly all my first discoveries here were on the elevation nearest to the great mound northwestward from it. Here I found a considerable fragment of pottery, exceedingly well preserved, which, in biscuit decoration, number of [Cushing’s blank], white slip finishing, and evident methods of manipulation, was identical with ancient Zuñi pottery. The most striking feature of it, however, was the occurrence, near the edge of which had evidently formed the rim portion of the water jar, of the characteristic Zuñi opening called the “exit way of life,” or “life trail,” and below this, in due relation to it, enclosed in a terraced figure of black, was the equally characteristic dotted eye, or what the Zuñis designate the “sacred ancient spaces.” For many reasons this specimen was the most eloquent of significance to me of any yet found, and I pushed my reconnaissance of the place therefore as far as possible. To the east of this elevation stood two very broad and

quite prominent mounds of the refuse kind. The farther one showed a slight depression in the center—evidence that it marked the site of a subterranean horno or oven, like those of Los Hornos; the other was absolutely paved, so to say, or tiled over with potsherds, and along its southern side and circumference literally bestrewn with burned human bones and calcined fragments of shell ornaments and amulets.

The most cursory examination of this mound convinced me that it and the mounds of which it was so fine an example marked the spot, as I had begun to suppose, where cremation of the dead and sacrifices to them were practiced.

I decided, therefore, that while I would cling to the name of “house-mound” at present, as applied to the often irregular but extensive and always low elevations marking buried house foundations, I would designate these mounds crematory or pyral mounds—particularly the latter, should excavation discover altars or pyres anywhere under their extent.

I longed to camp under the very mesquites which divided this place from the nearly contiguous house mounds where I had discovered the fragment of painted and symbolic pottery. But evening was coming on and we were compelled to make ready for leaving. All of our little party had been diligently searching over the mounds in every direction, and their discoveries of surface specimens were many and most important. Detailed descriptions of them will be given in one or another of the publications to follow this, as well as of the even more extensive collections which the Indians, We-ta and Si-wa-ti-tsai-lu, highly enjoying searching for their Lost Others, brought in.

So promising were these mere surface gatherings, indeed, and the indications I have just described, that I determined immediately on the morrow, if possible, to bring the Mexican laborers who had just been engaged, or Burgess should he turn up in time, to excavate far enough to determine the bounds which I have here given hints of, but which, of course, still needed further confirmation.

Our ride homeward by a more direct but puzzling way through miles and miles of mesquite forest, was made beautiful and delightful in the soft, abundant moonlight which illuminated the whole desert plain, and made our road and the dry alkali flats seem like streams and lakes of water. The wind was blowing gently down from the mountains off to our left, in the west, and the air was so cool and refreshing that even our thirst was almost forgotten until, at a late hour, we reached camp, nearly famished for want of water and our long-deferred evening dinner.<sup>98</sup>

No sooner was dinner over than our flagging spirits arose to the height of enthusiasm over an examination of the finds of the day. The observations I had made in regard to the various distinguishing characteristics of the Los Muertos mounds, coupled with those of the preceding few days, on the apparent interrelationship of the several great groups we had already examined opened up to me the first definite suggestion I had of the vastness of the significance and importance of the field of research we were about to enter.

In Mr. Hodge's tent I passed the entire evening with him, and later with Mr. Garlick, forming plans that this new insight seemed to make desirable. It became evident during this discussion that, as bearing upon the supposed interrelationship of these groups, and in each one of them of the house, pyral, and oven mounds to the central structure, that a most careful survey of the entire valley locating these ruins with reference to one another and to surrounding features of the topography, as well as locating the lesser structures around the great central mounds in any given one of the ruins, would be most essential. Plans were therefore made during that and the succeeding night in reference to the undertaking, by Messrs. Garlick and Hodge, of such a survey so soon as preliminary excavations could be made at Los Muertos.

For the time being, however, inasmuch as Burgess had returned during the afternoon from his visit to a tract of land he had preempted at Mesa City, and as on the morrow the Mexicans I had engaged would be due, I arranged to visit, if possible, during the following day, the site of Los Muertos again.

Late in the evening it became quite cool, necessitating a fire, especially in my large tent. But very early the next morning (*Monday, Feb. 28, 1887*) there were signs that the day would be even warmer than the one preceding. Indeed these signs became so speedily fulfilled that it became questionable whether it would be wiser to proceed at once to Los Muertos or to concentrate the workmen on the building of the ramada I had designed. I was very loath to give up the excursion to Los Muertos, however, and provisionally sent the Indians, We-ta and Si-wa-ti-tsai-lu, on horseback, equipped with extra nose-bags to collect surface specimens in such outlying sections of the Los Muertos ruin site as would probably be, on account of the distance, inaccessible to me, and telling them that probably we would follow later in the day.

Laying my plans for the clearing up of the camp, gathering of wood, and the bringing of proper materials for the construction of the ramada to Mr. Garlick, I then visited Tempe, accompanied by Mrs. Cushing and Dah Yung, in order to

purchase some extra digging implements which I thought would be required in the preliminary excavations, and to return one or two calls.

The information I was able to give to various people I met possessed such interest for them, and, on the other hand, more general information they were able to give me of ancient remains which, from time to time, had been found about the town as well in the surrounding country so belated our return that, it having grown excessively warm, I decided to abandon the trip for that day.

Burgess and Mr. Garlick had made excellent progress in the work assigned to them, and the Mexicans—Francisco and Jesús—with the assistance of some Pima visitors, had already set up the framework of our ramada by the time I returned. I devoted my attention, therefore, during the rest of the day to this work, since a shelter of some sort had become absolutely necessary—never more so than on this particular day. The mercury had risen to 96° in the shade, rendering our tents unbearable and driving Mr. Hodge forth from his shelter, where he endeavored to work at the current memoranda, etc., to get fresh air.

I had a great quantity of canes cut from the flatlands along the river bank and brought up by Pimas, and collecting a couple of these instructed them in wattling the canes together to form a huge mat for the carpeting, as it were, of our new shelter. There, as planned the night before, I deigned that much of our material should be stored temporarily in boxes, a given group of boxes being devoted to each particular group of ruins, and special ones of these to relics from particular localities.

We made such excellent progress with this work that it became clear to me that one of the Mexicans at least and Burgess could be spared for the reconnaissance of the Muertos mounds on the following day.

During the evening Mr. C. T. Hayden, perhaps the most prominent man of the valley, the founder of Tempe and of the locally celebrated “Hayden’s Mills,” came to make a friendly call on the ladies and myself, and in the evening communicated to me the important fact that when he first arrived at the site of Tempe he observed numerous mounds, lower than those we have described, but equally extensive, located not far beyond the great butte of Tempe and now covered with buildings. This information led to inquiries whereby I ascertained that like the other great mounds of the valley the great mound of Tempe had been surrounded by many lesser mounds and that numerous relics had been discovered there in the course of excavations for house foundations, mill races, etc.<sup>99</sup> Mr. Hayden also informed me that in constructing the race for his mill he had uncovered con-

siderable lengths of an ancient irrigating canal and that from this canal other and lesser acequias were found to branch off.

Thus the observations I had made at Los Pueblitos in particular and also at Los Hornos and Los Muertos were confirmed to a great extent. This led, when our visitor had taken his departure, to a long conference between Messrs. Hodge and Garlick and myself in regard to the inclusion in the surveys I had planned of such traces of the ancient irrigating system of the valley as we could discern.

I had observed from time to time that black stones lying along the plain seemed to follow sometimes in two parallel lines meandering courses like, for example, the tracks of a great wagon over the soil, and I proposed on the following day, when visiting Los Muertos, to include in the scheme of reconnaissance an investigation of this matter in order that it might be determined whether these lines of water-worn river pebbles, as they seemed to be, did not mark the course followed by irrigating canals and acequias. When I finally returned to our tent Miss Magill had a number of very beautiful water-color sketches which she had been making out in some shady nook of not only all the new specimens we had discovered, but also bits of scenery.

Just as we were about to retire, the two poor Zuñis, who had searched for relics diligently all day and had long awaited our arrival, now returned, having been nearly famished for want of water and food which they had not touched since morning. But they were in good spirits and exhibited to me in great glee a considerable quantity of potsherds, chipped implements, and a mass of broken shell bracelets and other ornaments, part of which they earnestly besought me to give them in order that they might work them up into the shell beads they so highly esteemed. They assured me that they had made considerable collections of the highly-colored stones of which I have spoken as composing altars, and also numbers of very perfect manos or mullers, and other large, heavy specimens which they had piled in various secluded spots to await my examination. They had so well observed my habits of marking and indicating places whence specimens were procured that, with accuracy a civilized man might despair of, they had not only marked and fixed in their minds the spots on which their more important finds had been made, but remembered unerringly the particular specimens which belonged to these spots and gave me a careful account thereof.

When morning came (*Thursday, March 1st, 1887*) we were all astir at an early hour, contemplating as I did a trip to Los Muertos for the purpose of making a search that excavations would facilitate and thus testing the conclusions which

had occurred to me from time to time and which I have heretofore partially presented. We had not proceeded far in our preparations for the trip, however, before a horseman arrived summoning Burgess again from camp on matters connected with his land claim. As this made it impossible for me to have with us two workmen — one being needed at camp to proceed with the completion of the ramada — I decided, toward noon, to visit Los Hornos instead, the distance to the latter ruins not being more than half so great as to Los Muertos.

I was now desirous of excavating some of the outlying mounds at Los Hornos, as well as at Los Muertos, in order to make certain that the characteristics of them, to which I have alluded as particularly evident at Los Muertos, were uniformly to be found in any one of the great valley ruin clusters. I therefore took Francisco, and accompanied by Miss Magill, Mr. Garlick, and the Indians, drove over to Los Hornos in time to give us a fair half day to this preliminary excavating. Selecting one of the more prominent and promising pyral mounds about a quarter of a mile west-southwest from the great central mound of Los Hornos I caused a trench to be dug from its uttermost edge toward the center and then around at right angles to this, toward what seemed to be a contiguous house mound. The opening of the first trench revealed only abundant sherds of pottery of the varieties usually encountered on the surface — although some, of course, were finer — and a small stone war-club or slung-shot, together with fragmentary bone implements somewhat better than any we had yet found, and the usual calcined pieces of shell ornaments.

In the second excavation, however, we struck, just within the edge of the house mound I have mentioned, what seemed to be a wall of concrete, although it was but poorly preserved. Close to this wall and at a considerable depth we encountered the skeleton of a child which had evidently been buried extended, with the feet toward the west, but the bones of which had been considerably disturbed, as also were the abundant vessels of pottery which had been sacrificed with it, by the burrowings of a coyote. We did not encounter any other specimens of the pyral mound in which the first trench had been dug. I came upon a small but perfect jar which contained earth mixed with charred human and food remains.

The discovery of the wall with the child's skeleton buried contiguously thereto and of this little jar containing calcined and charred material, presumably cremated human remains, while evidencing that the house mounds covered structure foundations and that the pyral mounds were undoubtedly pyral in their ori-

gin, was confusing, evidencing as it did two totally different methods employed by the ancient dwellers in the deposition of the dead.

Returning to the trench wherein I had discovered the remains of this child in order to examine more closely the evidences of the method which had been employed in its burial, I found that close to the child's skeleton were the remains, quite well preserved, of a very small domestic dog's skeleton. There was every evidence that this burial was not intrusive, as it is called, but fully as ancient as were the cremated remains, most probably contemporaneous with it.

I was consequently thrown back on the difficulty which faced me of needing to explain the occurrence amongst a single people, at a single period, of two methods of sepulture.

The Indians had left the group upon which we were at work in their search for surface remains, going farther and farther until they were lost to our view off to the southward. Nevertheless, in picking our way back to where the mules and buckboard had been left, we discovered three or four piles of relics, including most beautiful examples of grinding stones and other large objects which We-ta had gathered together, and near to which he had marked in the sand the totem of his gens or clan, the conventional figure of the sun.

The excavation of the two small trenches I have mentioned occupied very nearly the entire afternoon. Mr. Garlick and Francisco worked throughout with a will, finding the digging with such care as I wished them to exercise very slow and in the excessive heat of the day very laborious work. Indeed during the middle of the day and a part of the afternoon the mercury had arisen, we learned on returning to camp, to 98°, rendering even the partially completed ramada a welcome place of retreat to those whom we had left in camp.

Fortunately late in the evening Burgess returned to us again so that I was able to plan the trip I was so anxious to make to Los Muertos. The Indians also came back late at night, having wandered nearly as far as the Gila, some twenty-eight miles away. They brought large numbers of specimens with them, among which was an extraordinary figurine, the characteristics of which were different from what I had ever seen before. They reported that the land beyond the line of Los Muertos seemed not to rise, but to slope gently in an even broad plain which the freight road I have mentioned followed southward to the very banks of the river, and that off to the left of this road, not far from the river itself, they had discovered another enormous group of mounds where they had obtained the greater



number of the specimens they brought with them. These articles in nowise differed from those we were accustomed to pick up at Los Pueblitos, Los Hornos, and Los Muertos. This convinced me yet further that all of these ancient cities belonged to a single system and hence interested me still more in the excursion to Los Muertos, and Burgess having returned I planned it definitely for the morrow.

Fortunately for this plan the day (*Friday, Mar. 2, 1887*) opened cool and delightful. Selecting, as usual, the large covered buckboard, and storing it in abundant provisions for luncheon, I ordered two of the Mexicans (the third, Ramon Sarategus having been engaged) and Burgess to accompany us all—i.e., the ladies, Mr. Hodge, Mr. Garlick and the Indians.

From the beginning of the day I was very ill, but could not afford to let this interfere with our reconnaissance. I found the drive of nine miles through the forests of mesquite exceedingly exhausting and necessarily so tedious that we did not reach the ruin until mid-day; so we therefore made a temporary camp and prepared luncheon before proceeding with the excavations.

The spot chosen for our mid-day resting place chanced to be under the same large and beautiful mesquites between the house mound or long elevation directly north-west from the great temple mound where I had discovered the fragment of Zuñi-like pottery and the correspondingly extensive pyral mound contiguous to it which we had rested under before. Whilst eating luncheon there I observed that the fragmentary remains of vessels best preserved and least marked by excessive burning occurred not upon the most elevated portion of the mound, where one would naturally expect to find them, but near and outside of the circumference of the mound.

As soon as luncheon was over, therefore, I took my cane and drew a line from the level land just south from the pyral mound toward its edge, at right angles from this westward toward the edge of the house mound so near at hand. I then instructed Francisco and Burgess to excavate a trench along the line I had indicated, telling them merely on the chance of impressing them with my powers of observations in such matters that they would find two or three entire jars in the first trench, and toward the end of the one drawn at right angles thereto would encounter a solid wall. They did not much believe this, tho evidently interested, but they immediately and carefully began the work. I then took Jesús, and, with Mr. Garlick, went to the extreme southern end of the central mound—as I had determined for the time-being to designate it—directing Jesús to dig a small trench from the edge where it began to slope at the southern end lengthwise into it, and

to report immediately the discovery of walls, should he encounter such; and assuring him also that this great mound was only the debris of a temple composed of many walls. He was no more fain to believe this than the others, but he also, with some aid from Mr. Garlick, set at work.

I returned to the pyral mound, where Miss Magill was eagerly watching the excavations, just in time to be at hand when a beautifully formed, medium sized jar, carefully covered over with chipped sherds of pottery laid over the mouth like a thatch, was revealed. I had it left absolutely untouched but carefully cleaned off in order that Miss Magill might make a sketch of it in situ. Whilst Burgess was engaged in doing this Francisco found yet another and larger jar, similarly placed, standing upright, covered with sherds like the first, and seemingly buried in soil which had been wetted or else in a foundation of mud which had been provided for it. There were traces around the mouth of the latter specimen indicating that the potsherds with which it was closed, had been plastered in place with mud. Yet another vessel was unearthed a few moments later, almost in a line with the two preceding, and the edge of a fourth was touched entirely outside of this line, indicating that the vessels had apparently been set around this western and southern base of the mound, quite close to one another.

Having ascertained that the discovery of vessel after vessel of this sort was only a question of excavation in various directions, not into but *around* the mound, and that collections thus made, owing to the accumulation around each covered pot, of very numerous sherds of evidently sacrificed vessels and other objects, would prove of the greatest richness and value, I therefore had the workmen turn their attention now to that extension of the trench which reached to the edge of the supposed house mounds. They had excavated at the terminal point of this only fifteen or twenty minutes before they came upon a solid wall, quite regularly constructed of a very strong cement-like material, plastered outside and in. This wall was nearly eighteen inches thick at this point and was revealed at a depth of less than six inches from the surface. Within it, as if to point the way for future excavations and to indicate most definitely that this was a house of the living rather than a place of the dead, we discovered more of the beautiful decorated pottery I have described in quite well preserved yet not secondarily burned fragments. A few moments after this discovery was made, J sus came running down to camp in a very excited state to inform us that he had discovered an enormous *pared* (or rather as he pronounced it, *pader*) or foundation wall at the beginning of the slope of the top of the southern end of the central mound, and that this wall,

which seemed to run across the mound, was connected with another extending into the middle of the mound and equally if not quite as massive. On visiting the spot we found that these walls, only a few inches of which had been exposed by the digging, which was extremely difficult, were three or four times as massive as the house wall I have described, and that they had been carefully plastered by hand as shown by the finger-marks to be seen here and there particularly on the inside.<sup>100</sup> I gave instructions to Jesús to direct men, whom I would hire and send out with him to Los Muertos, to continue most carefully these excavations in the great mound. To Francisco I also gave instructions in regard to the excavations on the opposite or western side of the house mound we had just opened after finding, now by more surface examination, that walls everywhere bounded it below.

So interestingly exciting were these rapidly succeeding discoveries that the day had grown late ere we knew it. Nevertheless I took to examine, off a few yards to the west of this house mound, some lines of black and colored stones which I have before mentioned as possibly indicating irrigating canals which we saw there. I discovered not only that these extended in long lines of stones, double in most places, southward seeming to thread their way between many other house mound elevations, but that also between them and the house mound was a great depression which must have served either for supplying adobe or cementaceous material for the building of the houses which had once occupied this site, or else for water storage or reservoir purposes, like those hitherto described which we had found at Los Hornos. At any rate the water-stones—as I temporarily termed them—were especially abundant near this sunken area, particularly at one point where it seemed to touch the supposed irrigating canal. Following this southward I found that it skirted other house-mounds quite a distance to the south of the great central mound, and that some of these were even more extensive than the one we had begun to excavate. Just above the largest of these apparently the lines of stones branched, two broken threads of them, as it were, tending off south-southwestward but two lesser yet even more distinctly marked of them leading off to the south-southeastward, embracing in their winding canals, always along the courses marked by these scattered black river-boulders and fragmentary stone implements (as closer examination proved them to be)—but also, that by a regular system of canals the entire city had been supplied with its water as well as each particular cluster of houses composing it.

As a last act of the day at Los Muertos, we gathered together our loose trea-

tures, and then most carefully lifted from their places and wrapped in abundant sacking and straw the jars we had uncovered, leaving them, even as to the coverings, as intact as possible in order that we could examine at leisure and with due care their contents on arriving at Camp Augustus. We then started to return, through moonlight almost as bright, it seemed, as sunless daylight.

At our welcome little village of tents and shelters we found that Mr. and Mrs. Hayden with their friends, and Mrs. Farmer, the wife of Professor Farmer, principal of the Territorial Normal School, were paying us a visit.<sup>101</sup>

Having made collections now from a number of groups of ruins and having determined that within each were other groups, possibly interrelated, as were all to the central mound of each place, I felt that for the elucidation of many questions which would arise in regard to the life of the ancient inhabitants, too much care could not be exercised in the keeping apart and the recording of the collections we gathered.

As the Expedition was ill prepared for such collections as would result from the elaborate and extensive operations, which, nevertheless, I had decided that it would be necessary to undertake, in the employment of extra men to push the excavations, especially at Los Muertos, it occurred to me that this difficulty might be met temporarily perhaps by the storage of specimens from particular groups in special groups of boxes, and that articles excavated from particular mounds could be stored in the separate boxes making up each group, and so numbered and marked as to preserve their separate identities.<sup>102</sup>

In speaking of this to Mr. Hayden I found that he was willing to supply me with quite a number of boxes, barrels, etc. from his store. Thus I conceived that a method had been found for overcoming one of the greatest and increasing difficulties for our properly making representative collections from these ruins and keeping intact their identity.

After supper we all gathered in the Sibley tent, and, lighting candles, brought in, one after another, the jars which had been discovered. Placing them on large squares of canvas, we carefully emptied and examined the contents of each one, finding that they consisted of a large amount of soil and ashes, abundant cremated human remains—apparently of persons whose ages corresponded roughly to the sizes of the vessels in which they were placed. In one of the larger jars we discovered quite a number of very beautiful, discoidal, white shell beads, identical with those worn and so highly prized by the Zuñis today, considered as sacred and used in sacrifice. They were calcined, thus clearly indicating that they also

had been burned as sacrifices with the dead. This was further proved by the fact that amongst other things found in one of the other jars were, mingled with the bones, quantities of charred grain and other food material.

We forthwith temporarily labeled these specimens and stored them away under the ramada awaiting appropriate boxes for them, and then gathered to talk over the plans for the immediate future of the work.

I had now not only superficially examined, but also to a slight extent excavated in Los Pueblitos, Los Hornos, and at Los Muertos—the latter apparently the richest and most interesting point of them all. The striking results of the day's excavation had confirmed nearly all of my previous observations and conclusions as presented heretofore, and I was now desirous of formulating, at least for the commencement of our more careful investigations, plans based upon some more general idea of the extent and distinguishing characteristics of these ancient ruins of the Salado and Gila regions, and this general idea was made possible by the following lesser considerations:

These ruins, as compared with those of the north, were vastly more extensive, offering in this respect alone evidence of greater if not of further advanced ancient populations.

Each particular mound in any given one of them—and this would especially apply to the great central mounds—was more readily comparable with the typical ruins composed of closely massed small houses or ruins in the north than were entire groups of them.

It had been held hitherto by writers on our southwestern ruins that these ruins of the farther south were not much more extensive than those of the north, and that the major portion of the pueblos here found were included within what I had found to be merely the great temple or citadel structures in the center of each cluster of little pueblos or house groups.

It had also been held that these great central structures, as I now found them to be, were not only pueblos, but that they had been reared upon artificial platforms or terraces,<sup>103</sup> whereas our excavations of this day had made evident the fact that the seeming terraces upon which they had been constructed were formed by the destruction of enormous walls, the debris of which falling had been in part detained by and in part preserved from destruction the lowermost walls, which gave them their terraced appearance. This I had also now determined was true of such of the lesser or house mounds as appeared to be terraced.

The merely superficial but careful observations we had been able to make of the extent of these groups of mounds clustered around any one of the great central mounds had evidenced the fact that each one cluster of them covered an area of rarely if ever less than a square mile in extent and often a very much greater area.

We had also determined not only that the lesser and more regular mounds, at first thought to be refuse heaps, were indeed pyral mounds, and afforded abundant evidence of the practice, ceremonially and with sacrifices, of cremation. Yet within the house-mounds we had found not only walls, but near to them, in one case (as we would probably find in others) burial had occurred.

It seemed probable moreover that each great house mound, or at any rate each great group of house-mounds within a given cluster would prove to be possessed of a pyral mound and probably, also, of an oven mound.

I had finally determined, from the examination of the lines of water-stones and the suggestion of little altars of eroded and highly colored river boulders, that extensive irrigation works had been made and used by the dwellers in these ancient cities, single systems serving, it appeared, far more than one town; perhaps all the towns in a series.<sup>104</sup>

[But perhaps more interesting than all of those considerations was the one suggested to me on the night of this particular day so strongly by We-ta and Si-wa-ti-tsai-lu, who were interested observers of the examination we made of the contents of the jars, when they stated that these remains must be those left in the track of the Lost Others we had, as they supposed, come to seek. I say it was suggested to me by their crude traditional ideas, because those ideas seemed to be confirmed, in great measure, by the occurrence amongst these ruins, especially at Los Muertos, of pottery materials, sacred shell ornaments, etc., etc., exactly and functionally corresponding to the like still in use among the Zuñis. This might be especially said of the sacrificial remains discovered in the cave north from Los Hornos, and heretofore commented upon at some length. All of these specimens and many others were so identical even in symbolic characteristics to corresponding articles of the Zuñis, that my two Zuñi companions were rarely if ever much at a loss to determine the uses and natures of any unusual form of relic we found. But to me more significant than all these facts was the one that not only were these mounds definitely related one to another in any given cluster, but also that the various widely-separated clusters, or cities (as I may well call them, so great

was their extent), of the valley were related one to another, much as were the seven ancient towns of Cibola or Zuñi, and even the great quarters or wards into which, to the Zuñi's mind, his present pueblo is divided.

It was plainly evident, therefore, that I could not better serve the intent of the Expedition in the massing of collections and the gathering of facts calculated to throw new light upon Southwestern ethnology as well as archaeology, than to make, even at the expense of great delay in our progress back northeastwardly toward the Zuñi country, a very thorough examination of this southern system. Our plans for this, afterward considerably enlarged upon, but not greatly modified, were therefore laid out at this time in about the following form:<sup>105</sup>

PART IV



Settling on Los Muertos





## Introduction

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The final part of the extant Itinerary, which Cushing titled “Itinerary of the Initial Work at the Ruin Cluster of Los Muertos,” was written in the first three months of 1893. The writing ended abruptly in mid-March, when Fred Hodge refused further cooperation or access to his diaries. After some dispute between the brothers-in-law over Hodge’s obligations to Cushing and the expedition, Cushing gave up the effort. Still, his account of the month of March and the first half of April 1887 is rich with detailed information about the initial excavations at Los Muertos, Los Hornos, and the side camps that Cushing established. Of equal importance, Cushing’s recall of dream sequences and the processes of his ethnology-based archaeology today provide unique insights into the daily mechanics and mental reveries that together constituted archaeological camping in early Arizona. Finally, the Itinerary gives evidence that even in the first heady days of excavation, discovery, mapping, and recording, Cushing was showing signs of recurrence of the physical ailments that would in the hot summer drive him from the field for recuperation in California and ultimately bring disorganization and collapse to the Hemenway Expedition.



## Itinerary of the Initial Work at the Ruin Cluster of Los Muertos [3 March to 14 April 1887]

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The certainty of rich finds which the discoveries at Los Muertos (on the first and second days of March) assured, rendered it necessary that provision should at once be made for the disposition in distinct lots, according to the position and location of each find, of numerous, perhaps extensive, collections.<sup>1</sup> I therefore prepared to make and have made by Messrs. Hodge and Garlick preliminary plans of all special points of excavation as rapidly as these might be determined on by me, and for the location of these special points wherever sufficiently defined by excavation in the house- or mound-groups to which they pertained. I likewise planned for the location, by accurate triangulation surveys, of each great cluster or city of such mounds in reference to every other cluster in the entire system, and the relation of all these in turn to the system of drainage, both artificial and natural, of the main and tributary valleys and to the surrounding mountain ranges.

At an early hour (*March 3rd*) I sent to the stores in Tempe for such boxes as could be procured, and had these ranged in a square to the rear of the ramada in such wise that each might be made the receptacle of all articles from any given excavation, and marked to correspond to the location of such excavation on the preliminary detail maps.

While preparations were being made for this day's visit to Los Muertos I dis-

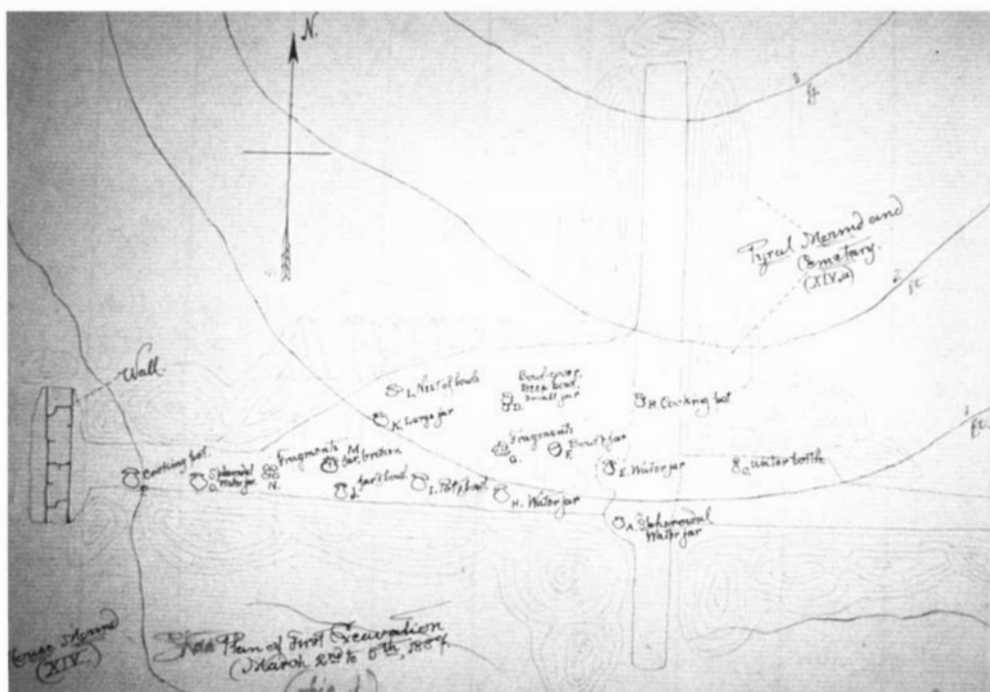


Figure 1. Sketch plan of first Excavation

tributed all collections thus far made in distinct boxes apart from these, so marking each that its identity might be preserved. Notwithstanding all this we were able to set forth for Los Muertos at an earlier hour even than on preceding days. I left the camp in the sole charge of Dah Yung, and took in our two buckboards the entire party, the better to inaugurate with Mr. Hodge and Mr. Garlick the plans above outlined, and to have continued by Burgess and the two Mexicans the excavations already begun. Miss Magill went prepared to sketch any significant finds which might be made along the line of excavations contemplated for the day, and Mrs. Cushing, as usual, prepared to seek, not only on the surface but in the fine debris which might be thrown out, stray ornaments and other specimens.

Immediately on reaching Los Muertos I made a new plan of the excavations as far as they had been carried and marked out new areas to be opened. This plan, as completed after the preliminary excavations had been finished, is sub-joined, (Sketch plan, Figure 1)<sup>2</sup> and will show the distribution of the fourteen almost entire vessels discovered during this one eventful day. These, while differ-

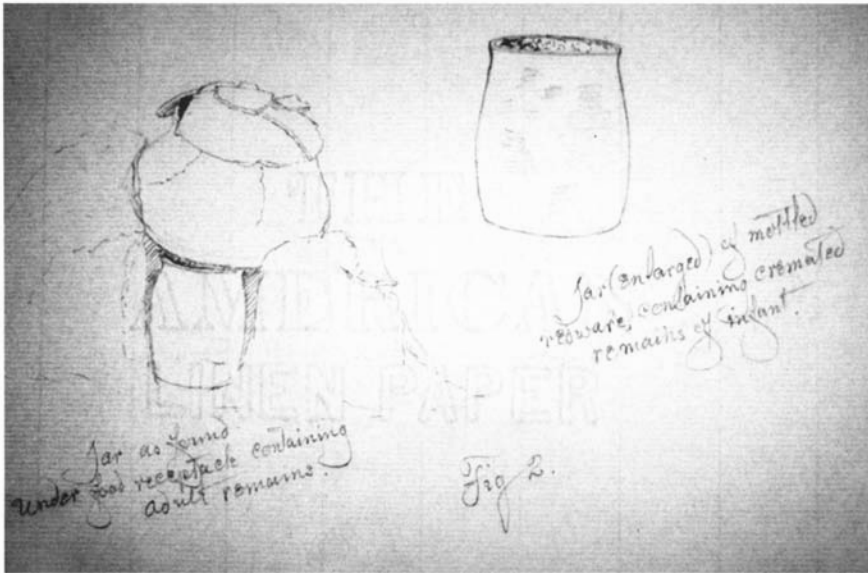


Figure 2. Jar of mottled ware

ing individually in form from those found at the beginning of the trenches, were nevertheless all burial jars and all contained cremated human remains, burned beads and other ornaments of shell, and some of them moderate quantities of charred food. All were covered either by pot sherds or inverted bowls, and surrounded by fragments of vessels evidently sacrificed in the fire at the time of cremations. Two very noteworthy finds of this kind were made. One of them (at *b* in plan; see Figure 2)<sup>3</sup> consisted of a small, smoothly polished jar of mottled ware, almost straight-sided, and, strange to say, perfectly flat-bottomed, containing the bones of an infant; while immediately above it, in fact resting upon it, was a large, deep bowl of plain red ware, containing the calcined remains of an adult, later determined to have been those of a woman. This bowl in turn was protected by a slightly smaller inverted bowl of rather finer finish, but broken—as were several similar vessels of intermediate shapes which had been sacrificed with these incinerary vessels.

At point [blank] in the plan, a deep, squatty, and somewhat large vessel of coarse earthenware, evidently once long used for cooking, was found, containing, as usual, cremated remains (in this case those of a young person) and surrounded by large cakes of burned grain, one of which appeared to consist of a small south-

western pea now sometimes, but rarely, cultivated by the Zuñis, others of which certainly consisted of small beans, and of cooked corn both ripe and green. There was also a trace of some kind of preserve in this accumulation, not improbably made from the pulp of the pitahaya or fruit of the gigantic cactus. Surrounding almost all of these pyral burials were fragmentary sacrifices, not merely of vessels as heretofore described, but also of shell ornaments, paraphernalia, and particularly of personal fetishes or amulets. By a study of these accompaniments to each burial (which I at once determined to keep the identity and interrelation of distinct),<sup>4</sup> the sex, often the condition in life, and in fact many other personal items relating to the individual buried may be definitely made known when these collections, if ever, are minutely studied by me, and cannot fail to give vivid, as it were, even historic knowledge of the people and phase of culture represented by these wasted and buried cities.

During a portion of the afternoon, accompanied by Messrs. Hodge and Garlick, I made a general reconnoissance of the entire cluster so far as its extent could be determined upon at this stage of the investigation. This resulted in the determination of several points for excavation in pyral and other evidently artificial mounds not before so carefully examined. Preparations for the preliminary platting of these locations were immediately begun, and a system of signal stakes was agreed upon between Messrs. Hodge and Garlick and myself, so that when, from time to time, I might in their absence discover other important points, they could be so indicated as to be properly entered by them on these preliminary or skeleton plans.

While all this work was proceeding, Weta discovered, quite far out in the charral brush, a remarkable vessel, he said. He immediately ran to [camp] and summoned me to examine it, as I had given orders not only to the men, but also to the Indians, that such and all finds should remain untouched until either sketched by Miss Magill or examined and recorded by myself. Going with him to the spot indicated, I found lying on its side under a thick sage-bush and partially embedded in the soil, as though exposed by the winds and the wash of rains, a beautiful red ware canteen, shaped like the so-called kidney vases (or paunch-like vessels; see Figure 3)<sup>5</sup> of southern Mexico and Central America. It was well nigh perfect, save for a crack evidently made during use by those who had deposited it, evidently, also, as a portion of a pyral sacrifice, for it contained no human remains. There were traces along the crack of mending by means of some hard and quite durable gum. This led me, for a time at least, to believe that the vessel might be

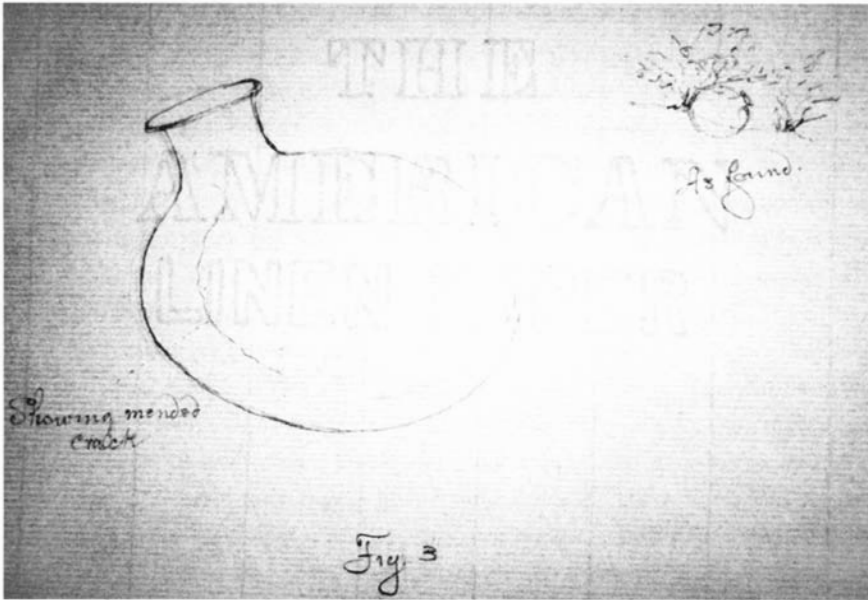


Figure 3. Kidney vase found near House Mound XIX

comparatively modern, that is, that it might have been lost or deposited there by some wandering Pima; but other and numerous specimens showing gum work later unearthed (and noticed in detail later on in this record) convinced me that such gum was practically imperishable.

The finding of this superb example of ancient art was a happy discovery in more ways than one, because it led me to not one, but the first of a *series* of many house- and pyral-mounds which extended almost indefinitely toward the east and northeast of the great central mound. The first of these was at once marked with a "house signal-stake," in seeking for which latter I came upon an extensive pyral mound, hidden, until now, in the midst of the chaparral and dense mesquite jungle, but which was even more extensive and promising than the one the men were now engaged in excavating. In this one day my eyes became so rapidly trained in seeking for "signs" that almost every walk in new directions revealed not less important points for future excavation, keeping me busy almost until evening with merely "staking out new claims."

This made it immediately expedient to secure, as soon as might be, additional workmen, and to formally arrange with Miss Magill to be present whenever pos-



sible, in her capacity as artist of the Expedition, to sketch all significant features as soon as revealed. I concluded also to write the Home Secretary, Mr. Baxter, for a camera, and to request that thenceforth additional monthly deposits be made to meet increased expenditures.<sup>6</sup> Although there remained no doubt of the necessity for remaining some months (as many as possible) at Los Muertos, still I continued to hope that by pushing work at this one point to the utmost, a representative collection of material and data might be secured soon enough to enable the Expedition to proceed up the Gila and Salado valleys, and thus in more or less lengthy stages on to the Zuñi country before the excessively hot season set in.

Nothing, however, could exceed the deliciousness of the days just now. They were all like summer mornings or late spring afternoons. The granite and lava mountain-rims of the valley south and west of us were sharp and clear, there, miles away, yet purple with haze. The sky, save for a few white and brown clouds hastily gathering today, so soft a blue, yet so bright, that it seemed more than tinted—alive with liquid turquoise as the ocean sometimes is—alive as a face is with blood. Then the great valley was raggedly green with mesquite groves, or olive gray with broad stretches of sage brush level as lakes, and the whole plain seemed to wave tremulously, yet very slowly, in the tremendous but always soft flood of light, as though this light were in some sort of luminous gauze, and were swayed from side to side by the ceaseless winds. The two Mexicans sang at their eager work (it was so new now!) and the coveys of quail, scudding about everywhere under the bushes and across bare spaces, sang also for all the world like the fowls of an Eastern farmyard in springtime, but with a more gladsome and constant plaint.

I had scarcely come in from the reconnaissance of the mid-after-noon, when, with a suddenness inconceivable elsewhere, the white and brown clouds began to close in, grew almost black, and covered for a little space the entire ancient city, but nowhere wholly shutting out the horizon.

We hastened to cover, as best we could with canvas, the jars still standing as we had found them (for not yet were they all sketched), and with such speed as was possible made ready to return home to Camp Augustus.

We were no sooner under way than rain in heavy drops began to descend straight down through great patches of sunlight—for the sun was shining full and sharply now in places—from just above and beyond the mountains, and shadows were flying down from their illumined slopes—great black ones, across our pathway. But as suddenly as it had come on, so suddenly ceased the rain

where we were, still pursued by the shadows off toward the towering Superstition Mountains, and was resolved with the same startling suddenness into a splendid dazzling rainbow, double (and at one point triple), and connected, yet cut into sections, by radiating bars of prismatic color and light. There it bended, on hands and feet (so it seemed to Weta), over the whole great mountain-centered valley, between us, seemingly, and the flying clouds, and all the rain ceased far and near. Never before, except in Zuñi-land, had I seen anything approaching this in gorgeousness and sublimity—nothing ever so spectacularly swift!

In wondering at this phenomenon I ceased to wonder that the Zuñis of centuries ago had personalized and dramatized it as the appearance and behavior of a great Man-Worm of the Skies devouring the rain-clouds, for long before we reached Tempe the sky was as clear as it had been at mid-day, and the moon was shining as whitely as on the night before.

The relation of such fleeting scenes and incidents as these to the primitive history for which we were delving after the material data is sharply illustrated in a discovery made long afterward by me in the Maricopa Mountains, just under where the sun shone so brightly that day, for there I found a triple arch crudely depicted as figured below, the two lower segments of which were connected by radiating lines precisely as had been the remarkable rainbow we saw on our way. Further elaboration there was none, but the presence underneath this of an emblem or figure of the sea-serpent (also here reproduced [in] Figure 4),<sup>7</sup> so sharply undulated that it expressed the rapid fleeing away of that which, of course, in this connection it was merely designed to symbolize, namely the rain-cloud and rain—clearly showed that the Ancient City Dwellers, like the Zuñis of today, held to an identical mythical interpretation and belief regarding the God of the Rainbow and associated phenomena.

We did not reach camp until quite late. Elated we certainly were, but also tired. Yet the designs which had been taking shape while I was discovering, one after another, new fields for activity that afternoon seemed so urgent that I spent the entire evening with Mr. Hodge at correspondence looking toward the consummation of these designs.

The letter which, in the absence from Boston of Mrs. Hemenway, it was necessary to write to the Home Secretary, Mr. Baxter, was extremely long, containing, in addition to more particular reports than heretofore furnished of the exact condition of the transportation and camping outfit purchased by me and rented to the Expedition, also a statement of the projects I had this day formed, and re-

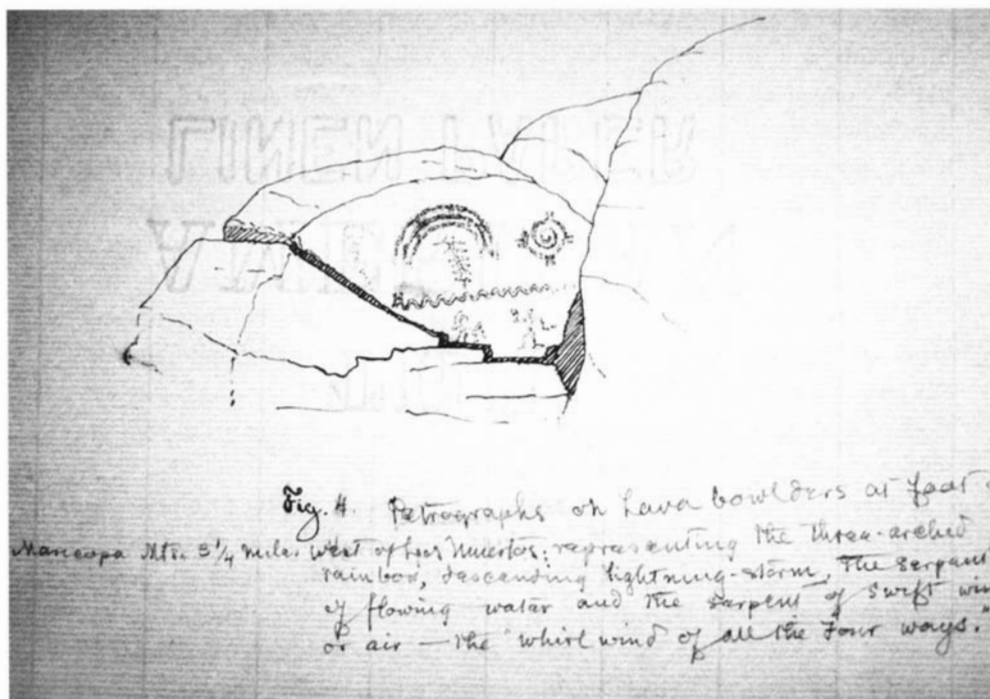


Figure 4. Pictograph group showing symbol of the Rainbow God

quests not only for additional funds thenceforward, but also for a camera and a small photographic outfit that the numerous finds we were not likely to make continually (and which I briefly touched upon) might be accurately pictured and thus better recorded than in any other way.

This letter, a summary of which is given in the appendices,<sup>8</sup> was so long that the dictation of it had to be continued on the following morning (*March 4th*), so that, with the delay incident to the repairing of one of our buckboards, the departure of Miss Magill and myself for the ruins was deferred until nearly noon. Mr. Garlick, however, had been sent on ahead with instructions that the excavation be continued along the lines laid out by me on the day previously. Nothing, however, had been found up to the time of our arrival.

As so often happened to me, I was taken ill soon after luncheon and for some time could only direct the men to dig trenches leading out both to the east and west of the central southern point of the pyral cemetery we had heretofore been

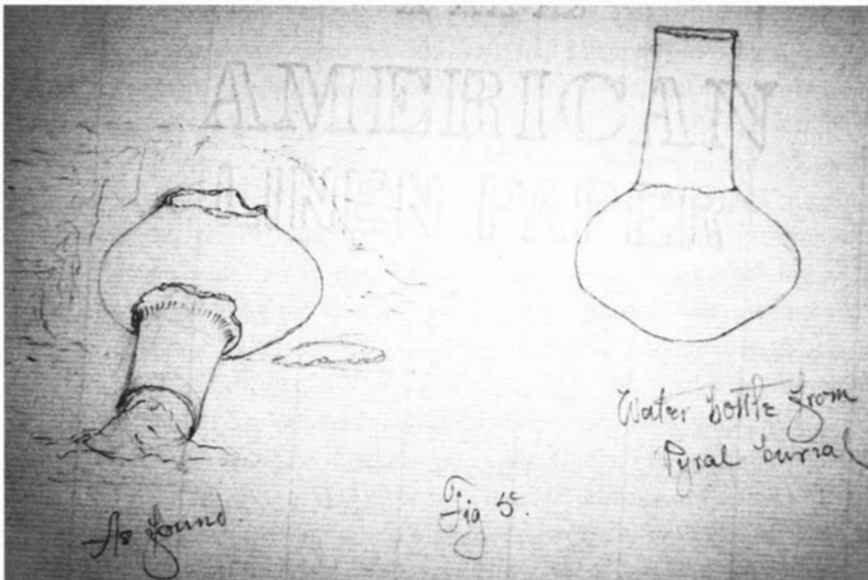


Figure 5. Caraffe or water bottle

excavating—the one trench with the object of finding other pyral burials, the other to see if, as seemed probable, there was any connection between the pyral mound and the burials in the large, elongated mound, or rather elevation (here and there marked by fragments of decorated pottery, uncremated bones and other relics which seemed to me to indicate that it had been the foundation, at least, of a house or great series of house rooms) lying immediately to the left or west (see plan [Figure 8]).

When, after resting in the shade of a large mesquite which stood midway between these two mounds, I was able to return to the works, I found that a beautiful, small, long-necked water-bottle, like a modern carafe and almost equally regular in form, had been discovered just beyond the turn into the new eastern trench (at point [blank] in above plan). When found, the long neck was broken from the body of the vessel and was lying by its side (see Figure 5).<sup>9</sup> Nor had this breakage been accidental, for in the body of the vessel were found the cremated remains apparently of a child, to facilitate the introduction of which the neck had been cracked off at the time of burial.

Although no specimens other than this, except of a fragmentary nature, were

discovered in the course of the day's diggings, one very important revelation was made. In the trench which I had cut to connect the two mounds, Francisco suddenly struck a hard body of earth which was presently found to be a very perfect wall, traces of the plaster of which even remained. It was constructed apparently of adobe, not in regular bricks, but in masses, as will be more fully described later on. This proved to me conclusively that all irregular low earth elevations or mounds like this one (see contour lines in sketch plan, Figure [8]) having fragments of pottery, *unburned* bones, etc., thinly scattered over them were not merely the foundations of buildings, but the lower portions of rooms themselves. I determined to secure at once additional workmen and have them explore the opposite and more promising side of this mound on the day following.

In wandering about the immediate neighborhood of the mound in question, Mrs. Cushing found the only remaining evidence necessary (if necessary it was for the establishment of the fact that these semi-barren earth-mounds were really the remains of house structures), namely, a portion of what evidently had been a large, household water-jar, on which was traced a decoration showing the open space or "line of life" so characteristic of similar but modern Zuñi earthenware vessels (see a, Figure 6).<sup>10</sup>

We were again late in returning to camp, but again on the way enjoyed a most marvelous scene—the great desert, flooded as by a kind of tempered and etherealized light, by the moon. And we listened all the way to the strange, almost sepulchral, tones of the great-mouthed night-hawk (*Chordeiles virginianus henryi*), so common and so noisy at this season of the year in the stunted mesquite and palo verde grove of the Southwestern plains.

Mr. Hodge continued all day occupied with the correspondence, but spent the evening with us in our tent, taking brief dictations of notes regarding the current discoveries and plans of operations for the immediate future.

Early in the morning (*March 5th*) Francisco [Ruellas] came to camp with two Mexicans. One was very big, dark, with a curly, short beard, and whose hearty, round face and ponderous yet courtly deportment reminded one of a rural Spanish innkeeper. His name was Ramon Sarateguez. The other was a very handsome, even distinguished looking man, Vicente Villa Nueva by name, with gentle, almost sad-looking eyes, and a black, pointed beard—more decently clad was he, too, than most of his countrymen; not more polite than they, but finer mannered, foreshadowing, in fact, in his every act the claim he later made of distinguished old Spanish lineage.

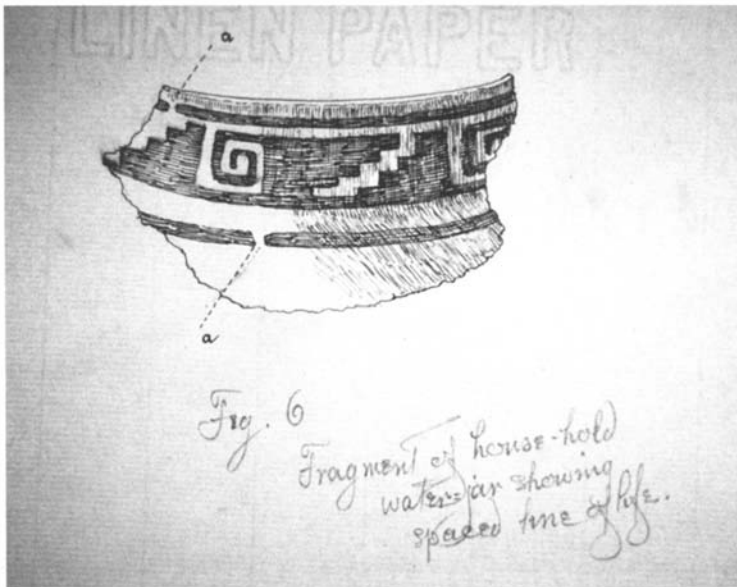


Figure 6. Fragment of decorated household water jar

I liked the looks of both these men, engaged them at once for a number of days, and sent them to breakfast. I immediately arranged with Mr. Garlick to take a large wagon and extra tools, make an early start with Burgess, Jesus Arros, Francisco, and the two new men, and to continue excavations in the pyral cemetery until my arrival. Later, I went with Mrs. Cushing in the small buckboard, accompanied by Miss Magill riding "Douglas." She fell behind and lost our trail, but urging her way arrived at the scene of operations (by another road than the one we were following) before we did.

Five new vessels had already been found, disposed in an irregular row along the western side of the first trench, which had been cut to double its first width [see Figure 7]. They were all,<sup>11</sup> except one, of the cooking-pot type, and contained cremated adult remains. All, likewise with one exception, were covered with sherds of other vessels broken as sacrifices. The exception noted was covered by an inverted, flat-bottomed vase, the sides of which were vertical but rounded; otherwise this specimen, in common with the straighter-sided jar already described (Figure 2) represented a type quite new in Pueblo pottery forms.

Immediately after lunch I had a trench begun as already determined upon,



Figure 7. Sketch of finds in XIVa

near the western edge of the house-mound, opposite to the one which had revealed a wall the day before, but leading eastward toward it. Within a few moments a very solid wall, eighteen inches in thickness, was struck, and followed both north and south by the workmen until corners or cross walls were encountered, revealing one side of a room (see *a* in sketch plan, Figure 8)<sup>12</sup> some thirteen feet long by an indefinite width. This was the first clear example of a house structure yet found in any of the mounds. I had all except one of the force immediately begin clearing the debris away from the western wall. Inside, a hard plaster or puddled clay floor was speedily reached, about twenty-seven or twenty-eight inches below the highest portions of the wall as exposed. Whilst Vicente, Ramon, and Burgess were directed to remove very carefully the earth from the interior of this room foot by foot from end to end, Francisco and Jesus were kept busy under my guidance following out the further courses of the wall toward the south. Two more rooms, the contiguous one slightly smaller, the second larger (see *b*, *c*, in plan [Figure 8]) were traced to the south. Whilst thus having these walls followed out by means of excavation along the inside and outside of them, I happily observed that immediately along their course (spread, however, over a strip of considerable width) on the surface, were still undisturbed small lumps of

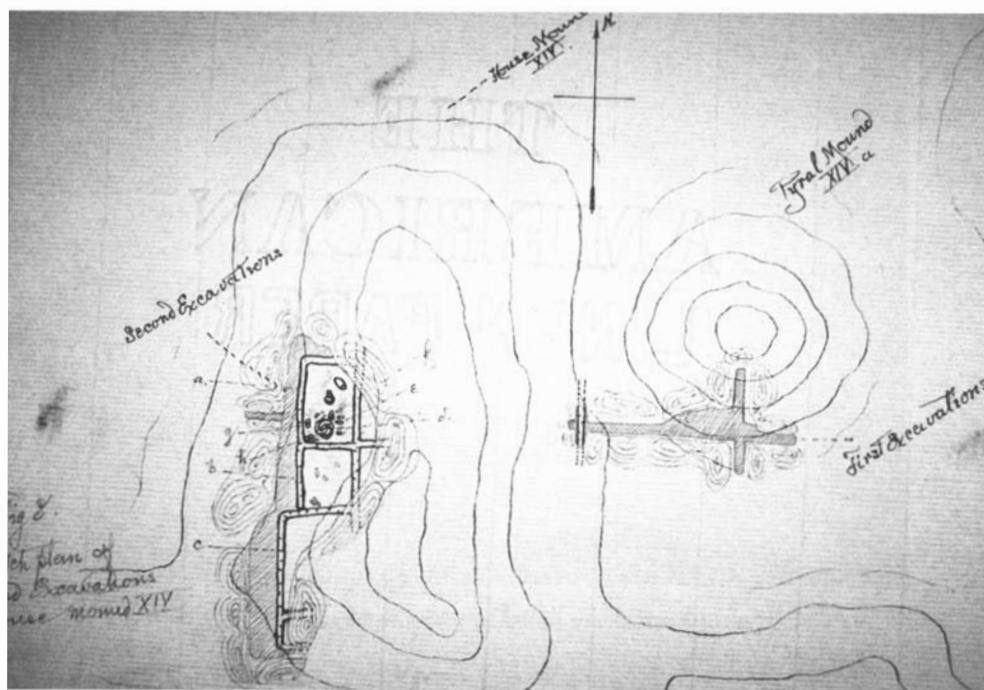


Figure 8. Sketch plan of House Mound XIV showing Second Excavation

earth harder than the surrounding soil and very slightly lighter in color. These excavations showed this to be an almost constant feature, and gave me a clue—not easy to follow, it is true, but which practice would render unailing—for the tracing of walls and even structural details, by mere surface inspection. Thus I at once found that we were working on the border of a great collection or block of rooms, like the cells in a mud-wasp's nest, only squarer. Being satisfied on this point I explored no further by digging, but had Jesus and Francisco begin clearing out the room next to the one first encountered.

Just as I returned to the latter the men found the rim of a gigantic jar, the walls of which were at least half an inch thick (see *d*, Figure 8). It had been crushed by the falling in of the roof and top walls, but the fragments were large and were soon sufficiently exposed to reveal the general form of the vessel. My surprise was something indescribable when I recognized in this the “Man-Thunder” drum of our own Priesthood of the Bow or of the related Knife Order of the Zuñi (compare outline restoration, Figure 9,<sup>13</sup> with Sacred Kettle drum of Zuñi, Figure 10).<sup>14</sup>



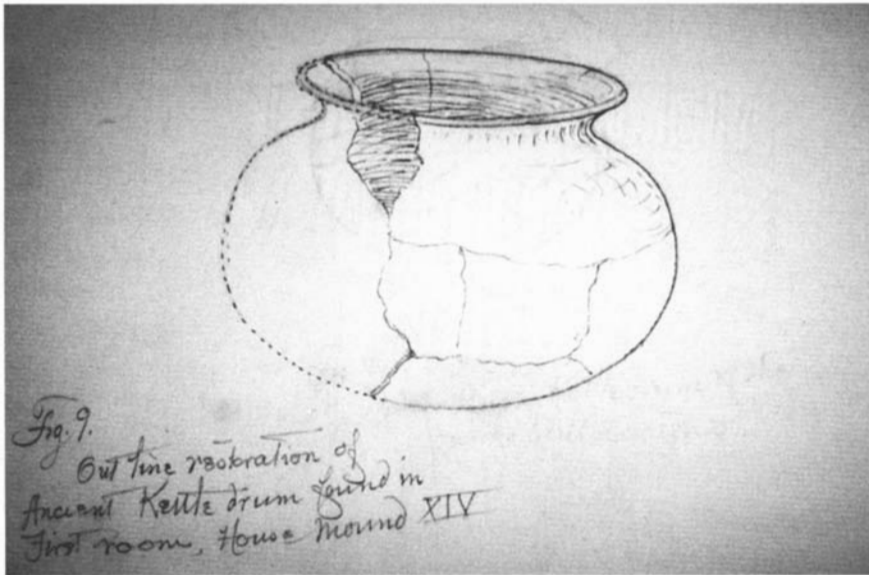


Figure 9. Outline of kettle drum found in room on House Mound XIV

I had every piece left undisturbed, for I already divined that this would prove to have been a sacred room (*ti'-kih'l-ha-po-na'-wan*) in the midst of the house-rooms round about, for the monthly and annual meetings of similar if not identical cult societies.

Lying around this ancient drum, we soon found other paraphernalia which removed all doubt on this most important point. In the first place, two large bi-valve shells (see *e*, [and] Figure 11),<sup>15</sup> much worn, and such as are in use in all the sacred or cult societies of Zuñi today as ladles for the distribution of sacramental medicine-water, were found, precisely as they had been left at the close of the last ceremonial in which they had served, not (as is invariably the case under normal circumstances after such a ceremonial) put away with other paraphernalia. In the second place a very large conch-shell trumpet (*f*, [and] Figure 12),<sup>16</sup> the so-called *tsu'-i-ke-e-na-ne* (or "heart shell of the world"), was found also lying just as it would have been placed during the rests in a "Drum song" ceremonial for testing the solidity of the earth, such as is performed each year by the Zuñis, or whenever any great landslide or other tremendous natural disturbance threatens, in their estimation, the stability of the earth.



Figure 10. Sketch of Zuñi sacred kettle drum

It is proper to dwell upon this point, for it opened up a new series of thoughts to me regarding the abandonment, apparently at a time of great prosperity, of nearly if not quite all the ancient settlements in this valley. So precious is such a “trumpet shell of the world” in the eyes of its priestly possessors at Zuñi today, so venerated and feared on account of the supposed connection between the sound made by it and the rumbling of earthquakes and landslides, that it is never left or exposed alone for a moment by its two priestly keepers when on rare occasions used, but is watched day and night; and when the ceremonial in which it plays so prominent a part is ended, this trumpet shell, wrapped in many casings of soft cloth and buckskin, is put away in or near the living rooms of one of the two priests.

The finding of the sacred ladles, then, and of the shell trumpet, carelessly left where they had lain where last used near the drum (which, unlike the other paraphernalia, is kept permanently in the room or house where it is used) indicated that this was not one of the regular annual occasions, but was caused by some profound disturbance and was designed to propitiate the threatening world powers, but which apparently ended abruptly, if not amidst disaster.

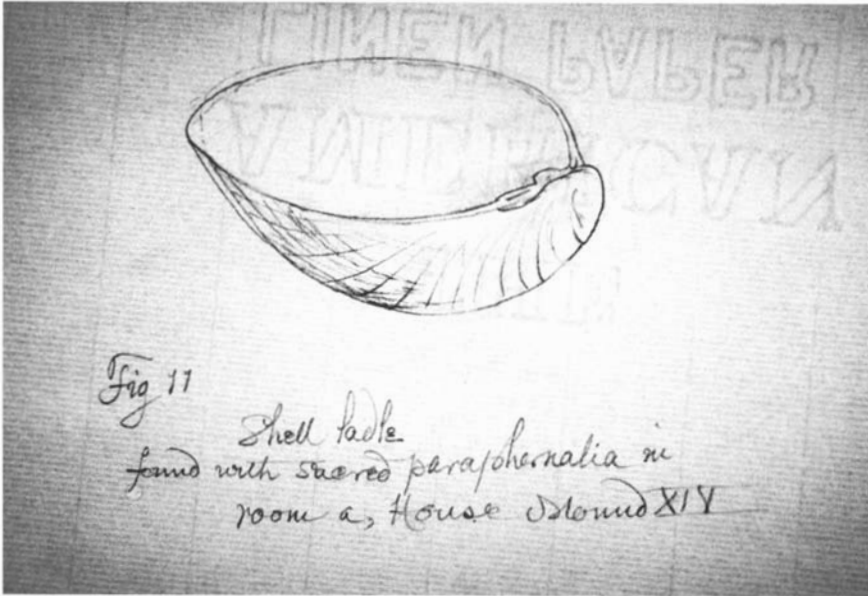


Figure 11. Sacred Shell ladle or dipper

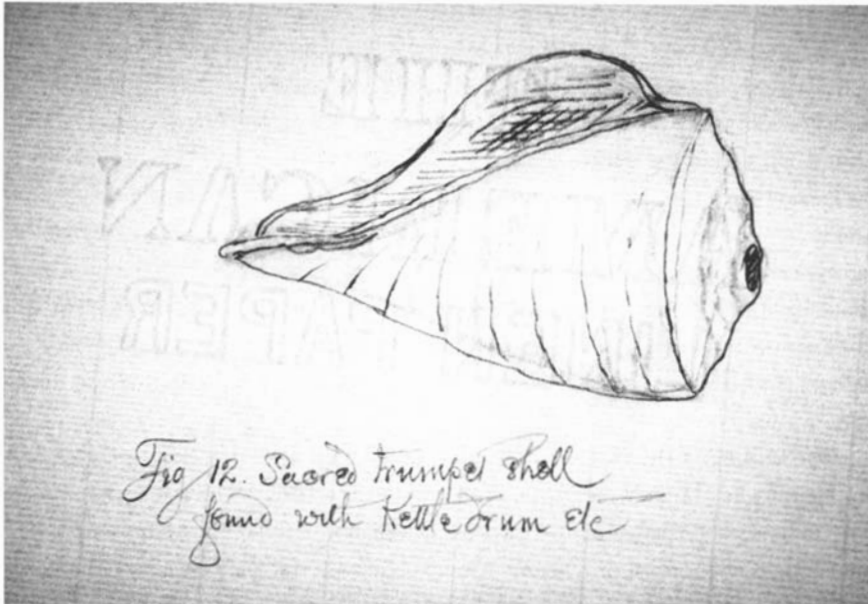


Figure 12. Sacred Conch Trumpet

The fragments of fallen walls which we were encountering in our excavations of these very first rooms discovered, and the above detailed facts, led me to infer, then, that in all probability earthquake disturbances had actually played a conspicuous part in the depopulation of this and very likely of the surrounding pueblo clusters; had, at least these finds seemed to indicate, frightened the people away after the failure of these, their most potent charms and medicines.

Between the drum and the nearest western wall was found a superb, double-bladed, stone war-axe, (*g* and Figure 13)<sup>17</sup> and in the corner nearby four or five stone war club heads and the spiral shell ornament of a priest's badge (*h* and Figure 14),<sup>18</sup> precisely where they had fallen from some protruding peg or antler above that corner, to which, (as in the assembly-room of the Priesthood of the Bow at Zuñi) the members had kept their ceremonial war-clubs and badges suspended.

To complete the chain of evidence relative to the special nature of this room and its contents, a cake of lustrous black war paint (made from sulphuret of iron, and such as is used in Zuñi exclusively by the War orders of the Bow and Knife, being called by them *tsu'-ha-pa*) was found also near the drum where the chief priest had held it for the marking of the faces of those who were to gather and sing in the incantation around the latter.

Meanwhile, in the next southern room from the one we were excavating, Jesus and Francisco unearthed several round and oval stones, which had been artificially shaped, and they also found a fragment of a flat, very thick earthen disk, originally ten or twelve inches in diameter, and which was marked by large wicker impressions on one side (Figure 15),<sup>19</sup> but on the other side was very smooth, as though it had been used either as a cover to a cooking pot, or more probably in baking, for it was much hardened and blackened by fire. Three or four manos or grinding stones were also discovered in this room, giving promise that we might find soon the metates or flat mills to which they belonged, and distinctly evidencing that this room, unlike the contiguous one, was, in merely the ordinary sense, a dwelling place.

We continued these excavations, the men as enthusiastically as ourselves, until almost nightfall, and reached home in the moonlight to a very late supper. We had scarcely finished when Mr. Patrick, the railroad engineer mentioned in an earlier part of this itinerary, made his appearance, having been on a reconnaissance to the Gila river. He brought a promised map on a large scale, for Mr. Hodge, of the neighboring and lowermost portions of the Salado Valley. He also brought,

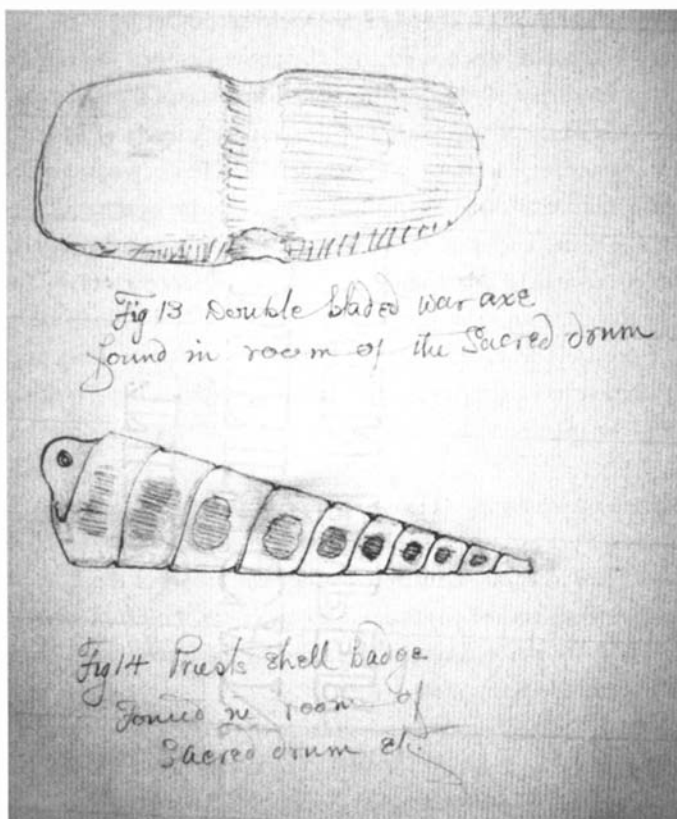


Figure 13. Double-bitted war axe, Room a, XIV

Figure 14. Spiral shell badge ornament of Priest

as a present to Miss Magill, a very fine Pima vase. Although decorated, this was totally distinct, both as to form and ornamentation, from the fragmentary specimens that had been found by us on house-mounds like the one we had this day been excavating. To further illustrate this not unimportant fact, sketches, one, Figure 16<sup>20</sup> of the modern, the other (Figure 17, a restoration of the fragment shown in Figure 6)<sup>21</sup> of the ancient forms, are introduced.

Mr. Patrick remained in our camp until a late hour discussing with Messrs. Hodge and Garlick and myself the map he had brought, and describing his quite extensive collection of surface specimens gathered in the course of surveys in this and contiguous valleys. He was anxious we should inspect this collection as soon

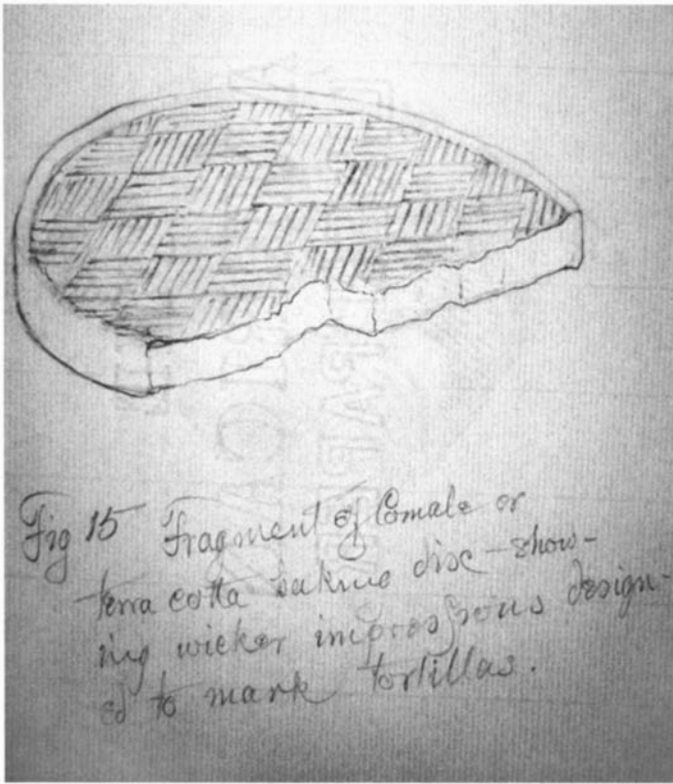


Figure 15. Comale or baking disc of terracotta

as might be. We accordingly arranged that at least the ladies and myself should visit him at his ranch (some two miles east of Phoenix) on the following day. I was anxious to do this, inasmuch as it would give me at once a clearer idea of the variety in the art forms we were likely to encounter hereafter, as well as an opportunity for examining more closely the central mound and the surrounding remains which marked the site (to the rear of his house) of one in the system of ancient pueblo clusters, more generally referred to in the introductory part of this report.

Early on the following morning (*Sunday, March 6th*) Mr. Patrick very kindly called for us. He and Miss Magill went ahead on horseback, whilst Mrs. Cushing and I, with Mr. Garlick, followed in the covered buckboard. Guided by Mr. Patrick's map and suggestions I was able to follow out more closely than hereto-



Figure 16. Pima vase showing joined neck braid

fore the course of an ancient canal between the road and the river, a large portion of which was obscured by use now as a modern irrigating ditch. I also made a hasty excursion along a branch leading from this into the ruin cluster of Los Pueblitos, and while at the latter place observed features (not before clear) bearing upon the belief but lately formed by me relative to the influence of earthquakes on the latest dwellers of the Salado. I determined, therefore, to have further and more special excavations made there at as early a date as possible.

These excursions along the way did not greatly delay us. We arrived at Mr. Patrick's ranch a little after noon, and Mr. Garlick continued on to Phoenix in order to make various purchases of supplies. I found, while awaiting his return, that Mr. Patrick's collection consisted of a miscellany of ancient and modern



Figure 17. Restoration of Ancient vase

articles. There were few complete vessels in it, and these were, with but one exception, almost identical with such as we had already been finding. This exception was an almost unique vessel, inasmuch as in the whole course of our researches we found but three or four specimens like it, one entire, two or three fragmentary. It was a very heavy terracotta cup, from two or three inches high and from three to four inches in diameter, representing a singular animal, long-necked, short, almost straight-legged, and with a small, upturned tail (as better shown in Mrs. Hodge's<sup>22</sup> admirable sketch; see Figure 18).<sup>23</sup> This singular form I was led by later results to regard as possibly representative of some species of the aulinia or llama.<sup>24</sup> The wear in the comparatively shallow concavity of the cup





Figure 18. Spindle cup representing llama-like quadruped

indicated that these and kindred specimens, either plain or like this, representing various animal forms, had mostly been used as spindle-cups, and were therefore very thick-walled and heavy. They were invariably made of exceedingly coarse-grained terracotta, but were quite highly finished and covered with a thin slip of dirty white or cream-colored clay paint.<sup>25</sup>

... in the course of our subsequent researches I will not here describe in detail more than one of them. It represented, conventionally yet very spiritedly, the Gila monster, and as almost an exact duplicate of it was afterward acquired by us it is also here represented (Figure 23),<sup>26</sup> after one of Mrs. Hodge's drawings.

Perhaps one of the most important specimens ever found in the Salado, one taken (as Mr. Patrick assured me) with various turquoise-encrusted shells and other shell ornaments, from the mound immediately to the rear of his house, was a marvelously perfect, black lava phallus, which, he kindly presented for the collections of the Expedition.

In Mr. Patrick's possession were two or three duplicates of what may be termed a sacred medicine-tablet or -slate, one of which (Figure 24)<sup>27</sup> he presented to

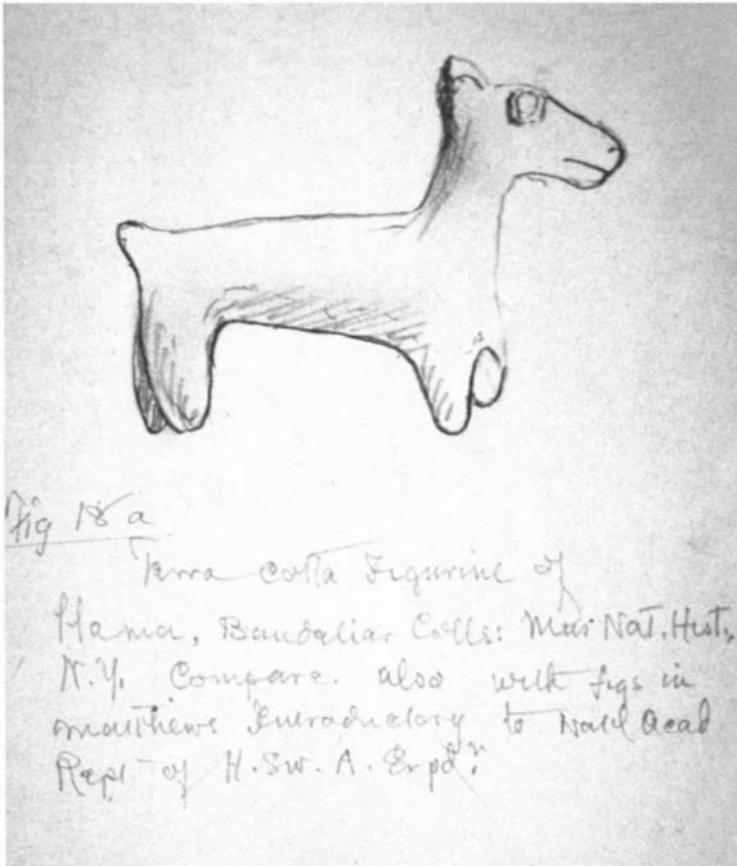


Figure 18a. Terracotta Figurine of llama

us also. Many much finer examples of these were afterward found during our excavations, hence their functions will be described more fully, later on, when discoveries of associated remains which first evidenced their remarkable use are recorded. Not only on this occasion, but more or less during our entire stay in the Salado Valley, we were greatly beholden to Mr. Patrick for assistance and contributions.

Surrounding the great mound to the rear of Mr. Patrick's house<sup>28</sup> we found the same numerous and characteristic pyral and house mounds so often noted, reaching toward the west, north, and east, from a quarter to half a mile, and one extending southward toward the river nearly as far, as indicated by abun-

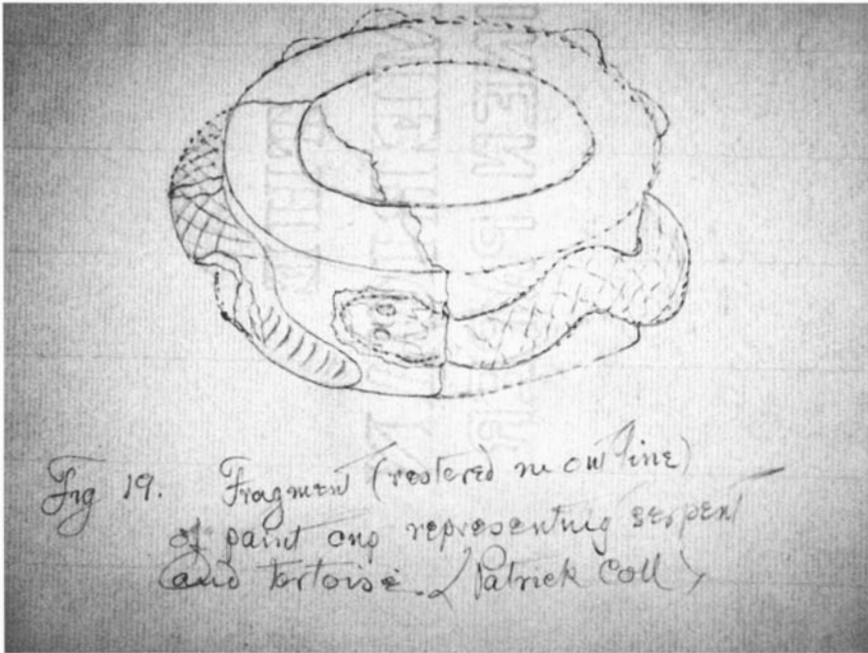


Figure 19. Fragmentary paint cup representing serpent and tortoise

dant house and pyral relics scattered over this extent of surface, wherever not overgrown by crops of alfalfa and grain.

It was a very hot day, and there was a high wind, which increased toward evening. We returned literally in the midst of a suffocating dust-cloud. It rendered us all more or less ill, and delayed our arrival at camp until after sunset. The Indians, Weta and Siwaitisailu, who had disappeared early in the morning to seek for new ruins and surface specimens, had not yet returned. Late in the night, however, they came in, bringing report of a considerable ruin cluster (afterward [called] El Pueblo Juan,<sup>29</sup> named for the Pima Indian who guided us to it)<sup>30</sup> to the northeast of Camp Augustus, and they stated that they had cached quite a number of large specimens there and elsewhere.

Early Monday morning (*March 7th*) Francisco and the rest of the men came to camp with two new workmen by the names of Raimundo Valanzueles<sup>31</sup> and Jesus Maria Garcia. I immediately dispatched them all under Mr. Hodge and Mr. Garlick to the ruins, with directions to continue the clearing out of the newly

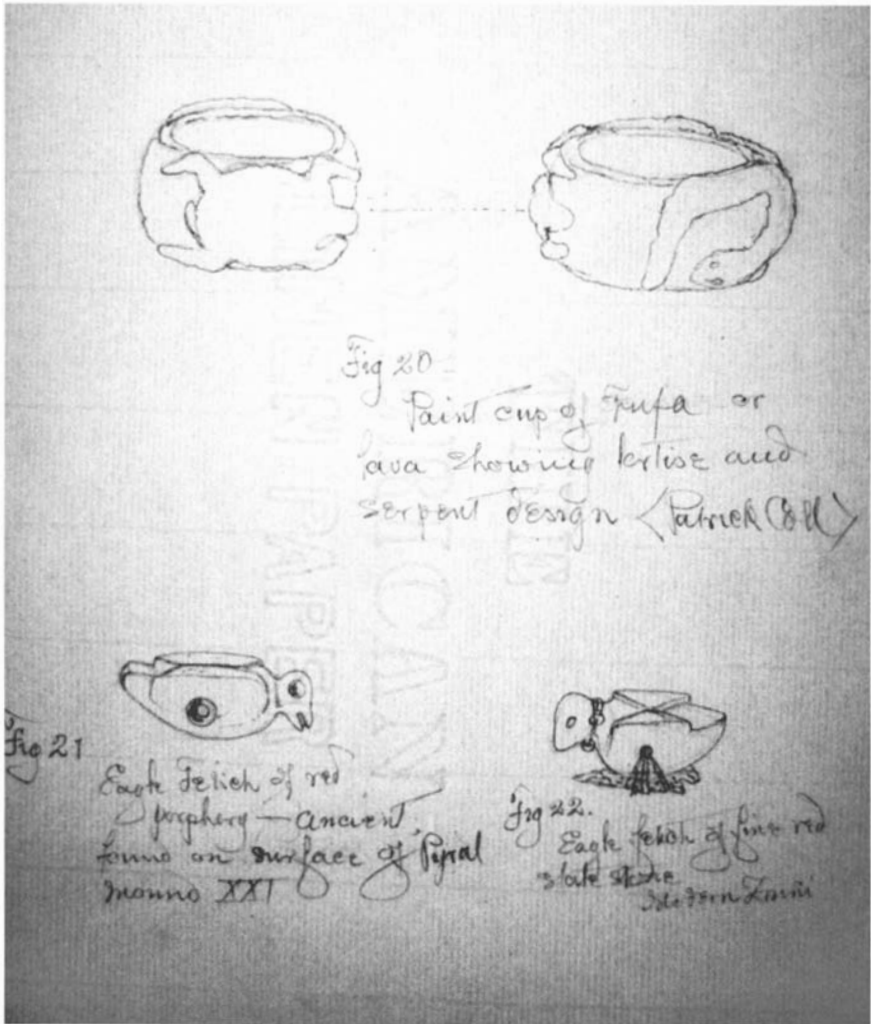


Figure 20. Complete paint cup of lava showing similar design

Figure 21. Eagle or bird Fetish

Figure 22. Eagle fetish Modern Zuñi



Figure 23. Shell carving of Gila Monster

Figure 24. Sacred slate or tablet

discovered rooms. When Miss Magill and I arrived at the scene of these operations later in the day, the men had already begun to uncover a superb, large, elaborately decorated water-vase of black and white ware, the first of this kind ever found entire in these ruins of southern Arizona. When fully exposed (yet left undisturbed for sketching as in Figure 25),<sup>32</sup> it proved to be spheroidal in form,



Figure 25. Sacred water vase as found in Room a, XIV

with a tall, comparatively narrow and gracefully tapering neck, the flattened body twelve and one-half inches in diameter and only six inches high, the neck seven inches wide at the base, five at the aperture, and four and one-half high. The lips and walls of this vase were thinner and more finely finished than those of any large vessel as yet found by us. Furthermore, on removing the dust and earth which had accumulated inside of it, we found another beautiful, large shell dipper, very much worn at its margin and base as by use for scooping, and almost exactly corresponding to the sacred ladles already described (Figure 9). Indeed, it seems from this circumstance alone, and from the finding of so carefully finished and decorated a vessel in conjunction with so much other sacred paraphernalia, that it also was sacred, and not improbably had been used as a receptacle of the sacramental "medicine" water earlier referred to.

This idea was reinforced by the character of the painted decorations. That these were symbolic was at once made evident, for the encircling line or band of black around the shoulder of the vessel just below the neck was slightly spaced at

one point (*a*, Figure 25) as if accidentally broken or left unfinished. This characteristic has been heretofore several times referred to as a constant feature of Zuñi water-jars and is held to be the “lifeline (spaces)” or “exit trail (of life)” by the Zuñis. The identity of this ancient with a modern Zuñi example will be so clearly seen by a comparison of Figure 26 (point *a*),<sup>33</sup> which represents a Zuñi jar of a like kind, with the figure above (*a*, Figure 25), that the strict correspondence between the ancient Salado symbolism and that of the modern Zuñi, in this as in so many other respects, becomes at once obvious. The full significance of this as in itself closely identifying the culture history of the ancient City Dwellers with that of the Zuñis (and thus giving value to all of my Zuñi interpretations of remains found and facts regarding them in the ancient cities) requires, however, further elaboration. I have already given, at much greater length than can here be afforded, in one of my articles on “Zuñi Breadstuff”<sup>34</sup> and in my study of “Pueblo Pottery as Illustrative of Zuñi Culture-Growth,”<sup>35</sup> an explanation of the origin and meaning of this interruption in the “closing lines” or painted black bands encircling water-jars and so frequently traced around the inner rims of food-bowls. The idea seems to have been conceived by the earliest pottery makers of this and the Zuñi region generally, that the almost human resonance of earthenware was the voice of a conscious or at least a controllable existence associated with the perfect vase, yet dissociated from it by the slightest accidental breakage. Now as these vessels were used for water or the source of life, and for food or the sustenance of life, their function was also associated with their supposed existences or beings. When a vessel was cracked or punctured near the base or at the bottom, it not only became mute (and therefore died), but it also could no longer contain and preserve the mysterious source or substance of life in the shape of fluid food or drink contents. These at once flowed out. Yet, if caught in some other vessel, they were found to be still nutritious, to still contain (as does the blood of a slain animal) their virtues as food and drink. That this invisible substance of life in these food contents might be kept living by the living vessel itself, not lost or wasted, the neck or rim of the vessel was “closed” (*athl’-tu-k’ya* — “shut in”) by the black and therefore deadly or symbolically impassable band. Yet further, that the life of the vessel might nevertheless remain unweakened or unendangered by the analogous process of taking its substance (“blood of,” to suggest it) away, through the mouth or opening, this space must be kept slightly unclosed, as if broken. Indeed, to such an extent did this notion that the life of the food partook of life in the vessel was vital to it, that some vessels were even further animalized by

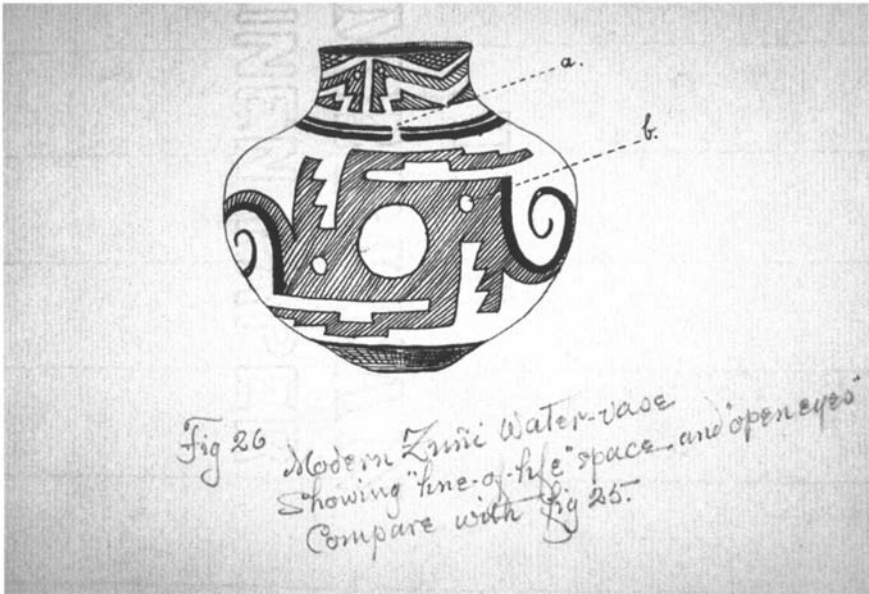


Figure 26. Modern Zuñi water vase

being provided with a second band below the decorated zone, and this also was left open at some one point. Particularly was this the case with vessels designed for the storage of water or food liable by long keeping to decay, for the odor of putrid water was attributed to the lack of an exit space below where the less of the contents gathered, and this odor was held to be the excrement of the vessel. I mention these additional facts in this connection because, later on, we found that a certain large proportion of the decorated jars, at least—as is the case with kindred vessels in Zuñi—were provided with both upper and lower spaced “closing” bands.

Whenever closing bands are now painted by Zuñi matrons they turn their eyes away as the ends of the bands approach each other, from fear that they may accidentally shut the way of life exit “knowingly” (that is, in their own sight), hence willfully and therefore sinfully. Whence—so they reason—this space, being thus sacrilegiously closed, the source (seemingly closed in her own breasts, yet ever open,) will likewise be closed, proving fatal to future maternity.

Not far from the middle of the room was found a rather large, smoothly worn, diorite boulder (Figure 27),<sup>36</sup> with two short grooves, also very smoothly worn,



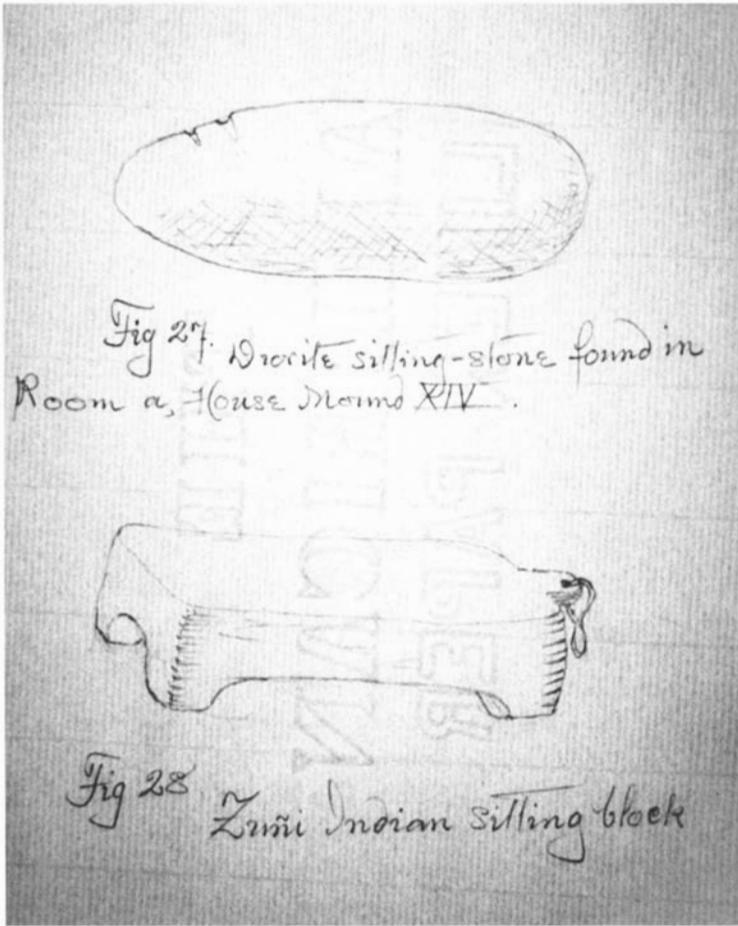


Figure 27. Diorite sitting stone found in Room a, Mound XIV

Figure 28. Zuñi sitting block

on one side near the tapering end, as if to facilitate the attachment to it of a thong or double band. This comparatively simple specimen was no less interesting in its way than the more elaborate vase, near which it was discovered, and the other relics in this unique room, because it, too, was the first of its kind encountered by us, and offered the first material explanation I had ever been able to glean, of the etymology of the Zuñi name for a stool or sitting-block. These Zuñi stools (Figure 28)<sup>37</sup> are made very much like the head-rests of Polynesian and African

peoples. That is, they are usually low and quite long, sagging a little in the middle, and having four short, stout knobs or legs at the corners. They are sometimes provided with a strap at one end to facilitate moving or dragging them about, though this is less necessary with them than with the heavier sitting stones they have evidently replaced.

Although made of wood, one of these stool-blocks is called a *thlem'-pai-a-ne*, from *thlem*, a slab of wood; *pai* or *pai'-ya*, resting upon or covering (for), and *a'a*, a stone, which literally translated, signifies "of wood, a sitting or resting home." This had vaguely indicated to me long ago that the original stools, or floor-seats of the Zuñis, had been made of stone, and that with the acquisition of metal tools facilitating the carving of wood they had used wood as being lighter and therefore preferable to the stone, yet had retained the original name for a sitting-stone (*pai'-ya-ne*), merely prefixing to it the distinctive phrase "of wood."

Soon after noon Mr. Hodge and Mr. Garlick began surveys of the first excavations in the contiguous pyral mound (later XIVa), as well as of the mound upon which we were now at work (XIV), in order that these various stages of excavation and the distribution of specimens revealed thereby might be shown. I transferred Jesus and Burgess to a pyral mound directly southeast from the great central mound (IIIa), the surface indications at the base of which gave promise of a similar cemetery to the one already opened (at XIVa). During the afternoon they found no fewer than four bowls and a beautifully formed, small, long-necked jar, all of them perfect, and distributed as shown in a a a etc., Figure 29.<sup>38</sup> An exceedingly significant specimen was found toward evening by Miss Magill in the debris thrown out from near the walls of the room (in mound XIV) contiguous to the one in which we had discovered the drum and ceremonial accumulations. It was a little, broken, but fairly complete, terracotta figurine of a female (Figure 30),<sup>39</sup> boldly yet crudely modeled, and identical in these respects to the small terracotta effigies (Figure [31])<sup>40</sup> which are almost invariably buried under the foundations of new houses or house walls at Zuñi today in order to insure these dwelling-places from accidental falling. An analysis of the significance of this custom is of great interest relative to the researches we had in hand. It is well known that amongst many primitive peoples (especially in countries subject to earthquakes) the custom prevails of sacrificing slaves under the foundations of houses, thereby to propitiate the powers which, sooner or later, seem to demand the sacrifice of human life, and to whom, therefore, life is sacrificed at the outset. In the course of development, however, it has not infrequently occurred that such peoples have

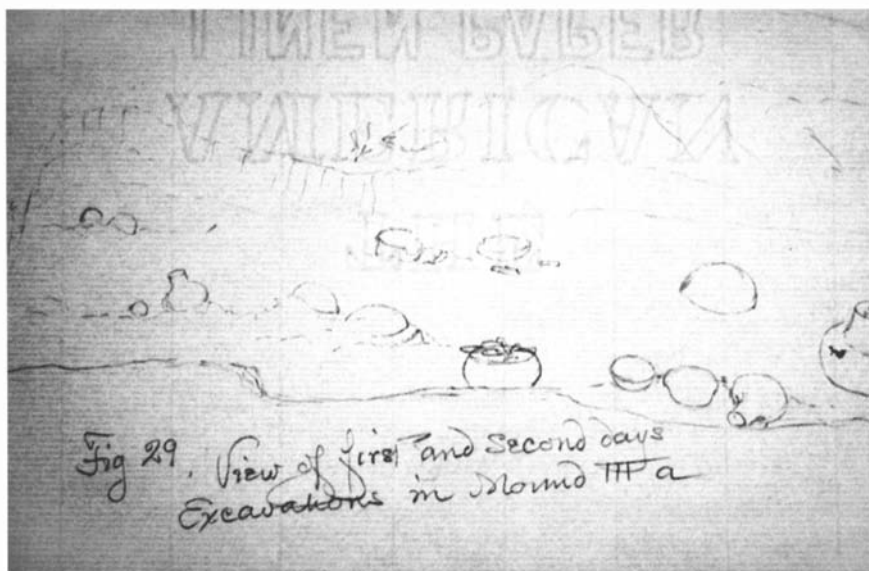


Figure 29. View of first excavation in IIIa

substituted either animals or symbolic figures for the actual sacrifices in question. Such, it appears, has been the case during the development of the Zuñis, and such, apparently, had already been the case, even to a greater extent, long ago, with these ancient people of the Salado. Later on, in various portions of this and in other ruin clusters, we discovered numerous little sacrificial figures of this character, showing that the custom was one more generally observed throughout this region than farther to the north and east, presumably because of a frequency of fatal accidents to buildings here—a further evidence, it seemed to me, of earthquake influence.

As usual, we did not return to camp until very late. Nevertheless, I was joined there by Mr. McClintock, Editor of the *Salt River Valley News*, to whom I must needs give a long interview relative to our observations, past as well as prospective. Although this consumed the whole evening, the time was not wholly lost. Mr. McClintock was unusually intelligent and appreciative. He also gave me further information concerning the sacrificial cave discovered a few years previously in the Superstition Mountains, warning me that some Phoenix people, fired by our example, were planning to re-explore it, if possible, before I could, and urging me, therefore, not to long defer a trip in that direction.

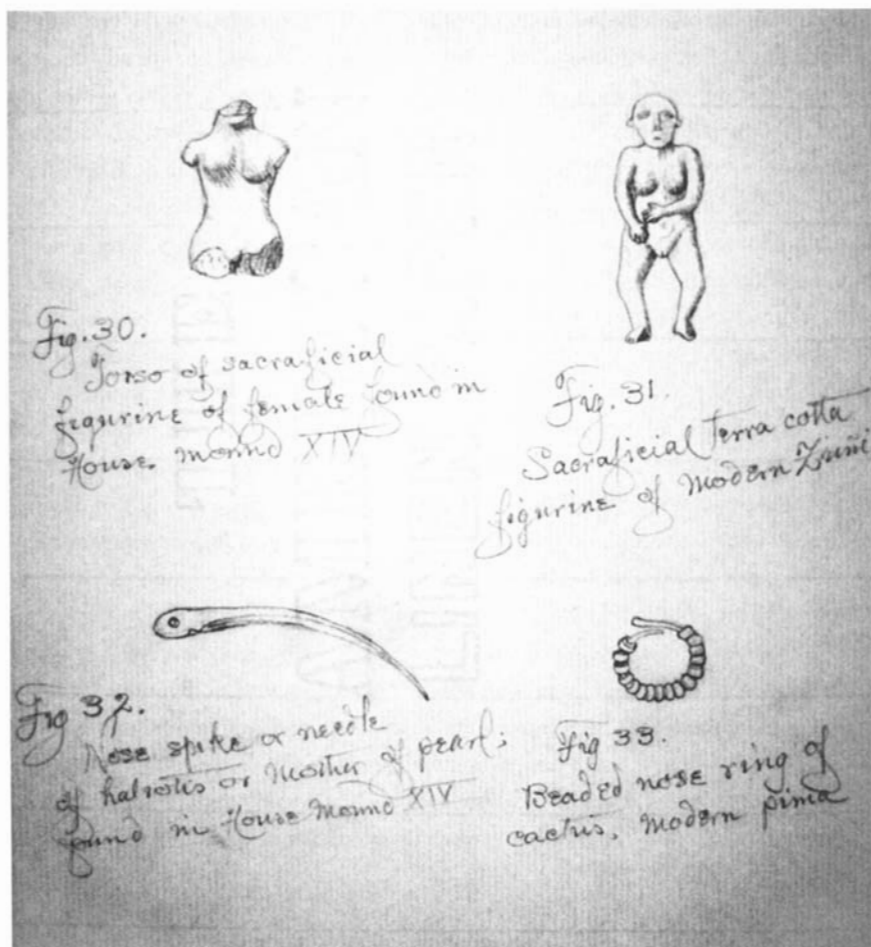


Figure 30. Sacrificial terracotta figurine found in House Mound XIV

Figure 31. Zuñi sacrificial figurine

Figure 32. Shell nose spike found in debris of Room a Mound XIV

Figure 33. Beaded Pima nose ring

We were able to make a very early start on the following morning (*March 8th*) with eight workmen, including Burgess, and on arriving at the ruins I divided the force between the house-mound and the new pyral cemetery (IIIa). During the night the wind had exposed to view some very delicate specimens in the debris cleared from the first room opened in the house-mound (XIV), and Mr. Hodge

found there not only several pieces of iridescent shell, undoubtedly the remains of haliotis or abalone gorgets, etc., but also a singularly fine and beautifully curved, needle-like nose-spike (Figure 32<sup>41</sup> [and 33]),<sup>42</sup> such, I fancied, as is traditionally referred to by the Zuñis as an earring. Several more of these beautifully formed ornaments were discovered a little later by Mrs. Cushing, but aside from these small objects little was unearched from the house-mound during the rest of the day. At Mound IIIa, however, a large number of vessels—bowls, long-necked jars, cooking-pots, etc.—were uncovered, fifteen of them being almost perfect, with fragments of many others scattered around them. See again Figure 29. Notwithstanding the large number of these pyral burials, only one contained, to any extent, cremated human remains, the contents of the others having probably decayed, since nearly all the specimens in this mound were quite near to the surface, owing to the erosion of winds and rain. It struck me as very singular that these pyral interments were, like those in the first excavation, generally, if not chiefly, confined to the southern and western borders of the mound proper to which they pertained, not in any case buried within the mound itself. Acting on the suggestion which this afforded, I caused the men, just before leaving for the home camp, to explore a little further on the south side of the first excavation (in XIVa) for evidence of this. Although no perfect specimens were found, indications of many other interments in that direction were observed. I conceived, therefore, that the ancient people of these cities had, probably like other Pueblo Indians, a tendency to inter their dead as much as possible looking (“started”) toward the sunset or “night-world (of souls,)” as well as toward the southern or summer region (of the “Life-renewing Gods”).

In the morning we had found the passage of certain new irrigating ditches extremely difficult and hazardous, as these had overflowed, and the apparently solid soil, thirsty for ages, became almost liquid in its consistency. It was necessary for us, therefore, in returning home, to make a long detour across Gray’s Ranch to the west and north of Goodwin’s, and so on to Tempe by the old Maricopa mail road.

On the following day (*March 9th*) we followed the same route on the way to the ruins, but were considerably delayed by increased overflows of the irrigating ditches. It was singular that, although our mules had all been brought from the north, they could in no case be induced to cross the damp places we encountered; that they should know, in fact, by some peculiar sense, so much better than we did, the dangerous character of the saturated soil in this unaccustomed region.

Having found so many walls during our recent excavations, I was led to suspect that the great mound itself would prove to be even richer in relics and more regularly walled and constructed. I therefore put a number of men at work on the southern extremity of it, whilst the rest were still engaged in clearing out more rooms in the house-mound. Comparatively few discoveries were made in the latter place, as the work progressed very slowly owing to the accumulation of earth thrown out during previous excavations. I therefore had a couple of teams with scrapers set to work for the first time on this mound, and with most gratifying success, as progress was thus greatly hastened and new walls more rapidly exposed; yet only a fine grooved diorite axe and another drinking shell were found.

Midway at the western end of the great mound the workmen soon struck, a few inches below the surface, an extraordinarily solid and very heavy wall, so beautifully preserved that the plastering and some traces of a white wash could still be seen on its inner faces; but the amount of debris on either side of this gigantic wall was so great that before any other connecting walls could be found, we were forced to leave for camp.

On emerging from the mesquite jungle in the vicinity of the ruins and approaching Gray's Ranch,<sup>43</sup> we were hurriedly met by a man who told us that the whole section beyond was flooded by increased overflows. Thus we had to turn back and seek a less direct road. Unfortunately, our case was not much bettered by this, for we missed our way, and came near losing our mules in a number of places by miring, and it was only after three or four hours of severe struggling that we succeeded in reaching Camp Augustus. So great had been the difficulty of transportation and so much time had been lost in consequence of these overflowed ditches, that I realized these excavations at Los Muertos, however interesting, would have to be suspended for a short time, and I therefore temporarily discharged three of the workmen, retaining the rest in order that the excavations at Pueblitos (planned on the Sunday previously) might be carried out.

Fortunately the following morning (*March 10th*) opened beautifully, and accompanied by Mr. Garlick with the five remaining workmen, and by Weta on horseback, I was able to make a very early start for Los Pueblitos. Mr. Garlick continued on to Phoenix for the purchase of forage and provisions, whilst I conducted the workmen to the comparatively well preserved, tho' mostly hidden, medium size two-storied house, a quarter of a mile, more or less, to the rear of the great central mound at Adams' Ranch, where I had seen evidence apparently of violent earthquake or other terrestrial disturbance, during the actual occupancy

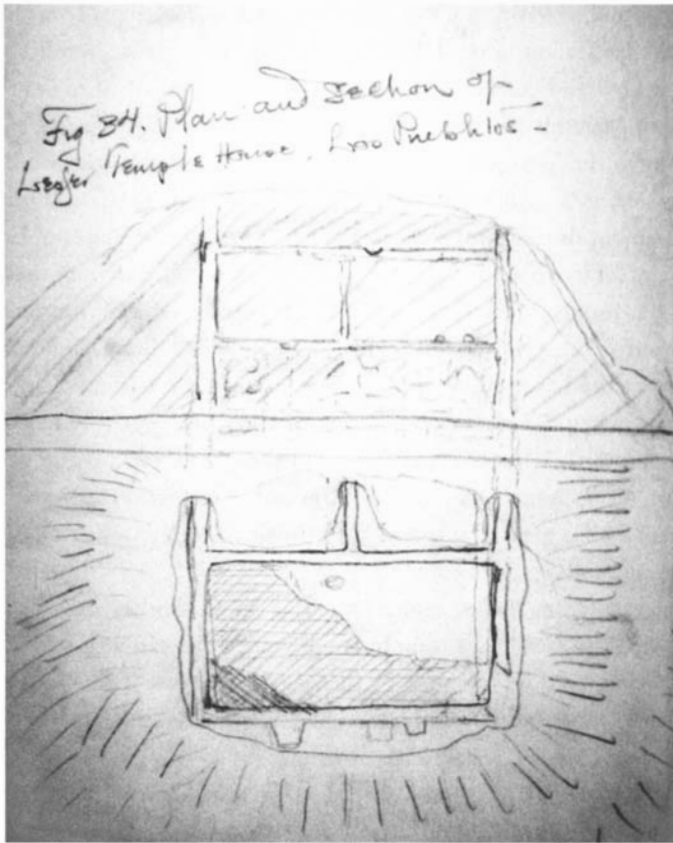


Figure 34. Section and plan of Little Temple House, Los Pueblitos

of the ancient cluster to which it belonged. Originally the structure had been at least three stories high (see Section and Plan, Figure 34),<sup>44</sup> but it had evidently broken down and the lowermost story [was] purposely filled, while the second and other upper stories were restored and built up somewhat higher and again floored and roofed. Yet another disturbance occurred, seemingly, and the uppermost story had been once more, this time hastily, rebuilt, and buttresses had been added near the two ends of the outer northern wall.<sup>45</sup>

It was in order to test these observations minutely that I concentrated all the workmen on the clearing out of the rooms and the removal of the debris which had fallen around and hidden even the external and upper portion of the walls.

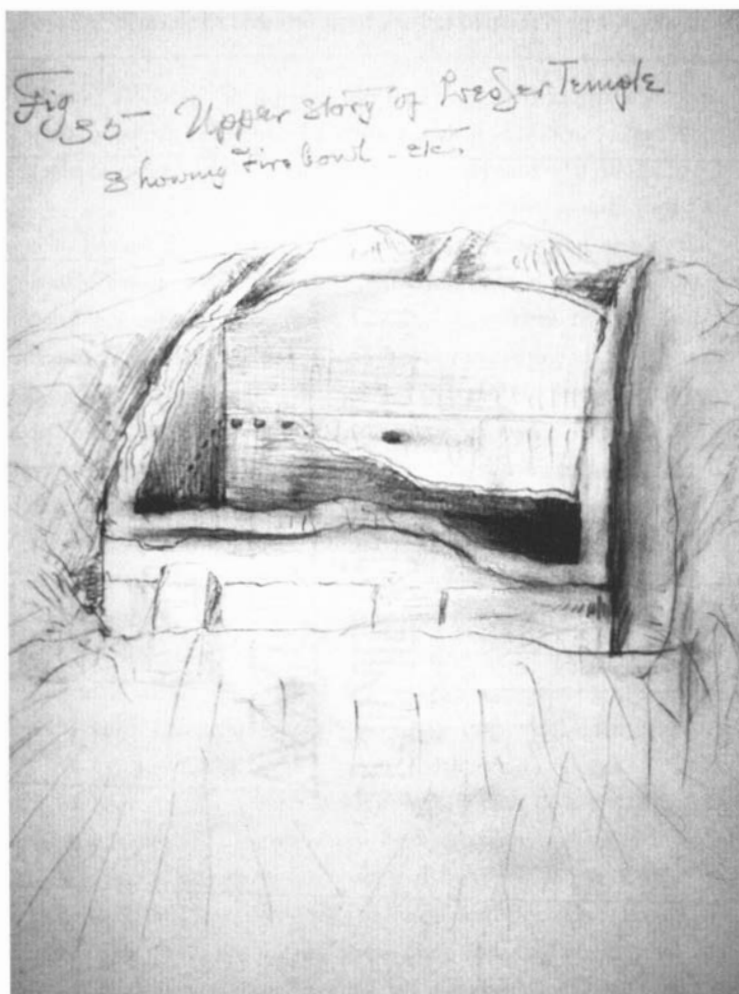


Figure 35. Firebowl in upper story floor of little temple

We were presently joined by Mr. Hodge, the ladies and Siwaititsailu, and all save the two Indians joined in this most interesting work. By about noon the men came upon the floor of the upper story, and near the southern wall, a little east of the middle, we found a small fireplace. This was let into the thick cement floor and was shaped precisely like the inside of a moderately large eating-bowl (Figure 35).<sup>46</sup> It still contained ashes and the charred remains of greasewood and



other small twigs, which seemed to have been reduced to charcoal before burning in this tiny fire-bowl.

All except the upper (the less repaired) portion of the walls exposed by the workmen were very smoothly finished, and had evidently once been whitewashed with a slip of kaolin or white clay, but by long use they had been so blackened by smoke that they almost glistened.

Only about one-half of the floor we had struck (which served of course as the ceiling of the room below) remained intact, the other portion having been destroyed and thrown down into the lower room, evidently by even a second disturbance, and then the house, or more probably the use of the place as temple and storehouse, had been abandoned. This was very clearly evidenced as the work progressed and the lower room was cleared out, by our finding, on the eastern and northern walls, very crude drawings roughly scratched in the plaster apparently by childish hands, and representing various articles of paraphernalia, besides quaintly conventionalized figures (like children's drawings on slate today,) representing the bear and puma, as well as other but indeterminate animals. A little bit nearer the corner of this room was represented a child's interpretation doubtless of what was to him the most impressive doing of a far-off prehistoric day, namely, the hunting scene in which his elders had gone forth to the mountains. Only three or four of these figures can here be represented (Figure 36),<sup>47</sup> as portions of many others had been almost obscured by the subsequent action of the wind and perhaps of stray rain-drops on these inner walls; but that the place had been abandoned and had been the play-time resort of children was made almost certain by the fact that all the crudely incised drawings had been cut through the smoke-blackened surface of the original painting on the plaster. Nor were they (as would have been likely had they been made during the occupancy of the rooms) in the least darkened by the smoke. Yet a more regular pictograph (Figure 36),<sup>48</sup> representing interlaced lightning as it is today drawn by the Zuñi and Tusayan Indians in their rain ceremonials, was found in the midst of these etchings, but, as shown by its smoke-blackened lines, had been made whilst fires were still kept burning in the rooms.

When the floor of the second story was reached another fire-bowl, even more perfect than in the first room excavated, was revealed, nearer to the middle in this than in the upper floor. It was larger, and contained also a larger quantity of ashes and cinders. Lying to the west of it were two very perfect diorite sitting-

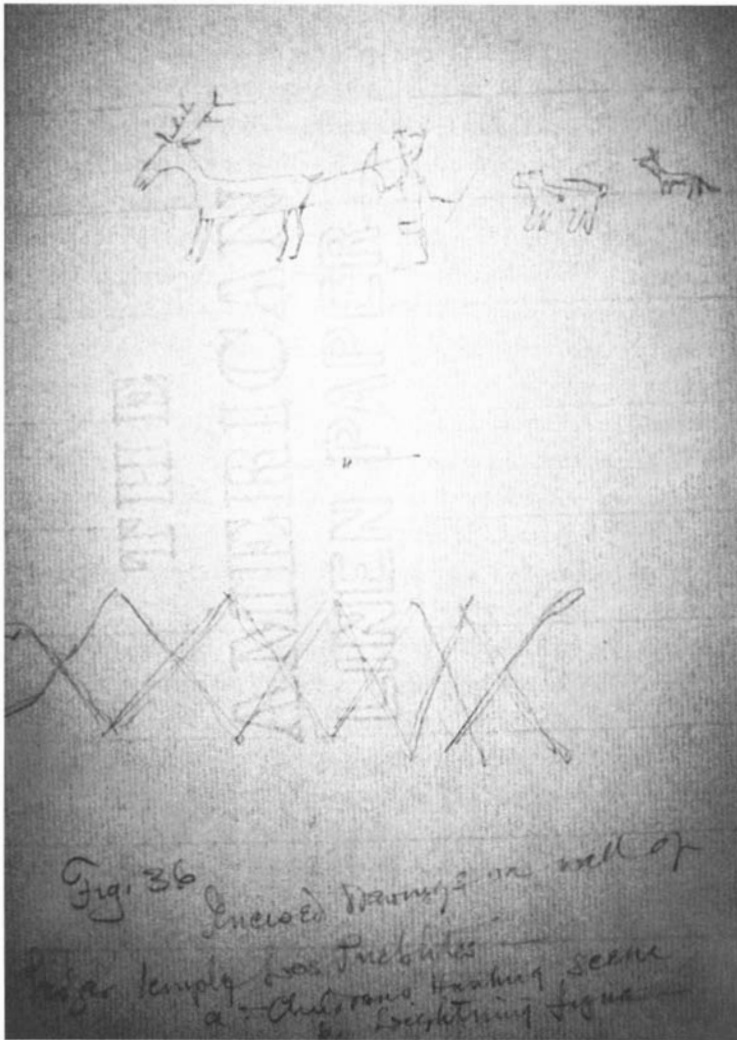


Figure 36. Incised children's drawings on wall of little temple

blocks like the one already described, very large and ponderous, but furnished also with very deep notches or grooves near the smaller end.

Aside from these relics we did not find any others of importance, except now and then a broken bracelet and a few fragments of pottery, particularly of cooking utensils; but it was by the exposure of this floor that it was possible to determine that even below the present level of the surrounding surface there had existed yet a third story which had, as I have hinted before, been buried by the debris probably when the first downfall occurred. The entire inside (or lower) room had then, we now found, been purposely filled (just as were the great temples or huacas of ancient Peru when partially destroyed by earthquakes), and on this foundation the floor of the second story had been laid and plastered. Along those portions of the walls where the ceiling of the second story had been broken down, the points where the very small supporting rafters and cross timbers had been inserted were still plainly marked, not only by rows of apertures, but also by slightly protruding charred remains. These traces evidenced an exact correspondence in the methods of roof and floor making by the modern Zuñi and Moki [Hopi] pueblos, and the builders of this ancient structure.

Mrs. Adams, the owner of the ranch whereon these remains occurred, lived in a little hut which looked insignificant standing toward the road just below the towering central mound of Los Pueblitos. She was most affable and accommodating, giving us free permission to dig all we pleased, "the more the better," she said, as these mounds on her place were a sore impediment to irrigation and ranching. She was not quite certain at first whether the ladies were more closely related to me or to other members of the party, and was quite free and amusing in her remarks about them. She said she thought they were "nice lookin' women, ——real ladies!" for they wore "grecian bends!" And when on passing her house as we returned homeward I stopped for a moment to again thank her for the privilege of excavating, she came out to us, and on being introduced to Mrs. Cushing and shaking hands with her, examined her deliberately and critically, and then, turning to me, said with refreshing candor, "well, she certainly is a right good-looking woman compared with the likes of you! But you're a good enough chap, and you can go on digging just the same, and as I said before the more the better!"

While these amenities were being interchanged Mr. Garlick joined us and took the Mexicans on to the top of the heavy load of hay he was hauling. The sun had

long set, so that the moon was already rising, giving such light as the moon of New Mexico and Arizona alone gives throughout all this great country. As we rode homeward Mr. Garlick gave me fresh reports, gathered in Phoenix, regarding the cave (sacrificial, I judged) Dr. Gregg had told me of and Mr. McClintock had urged me to visit, in the heart of the Superstition Mountains, or El Sierra del Incantacion. As the weather was growing hotter and hotter, and bade fair soon to become almost unendurable, it became necessary for me to give up excavations for a short time and have the camp made more endurable by the construction of ramadas or brush-roofed shelters, such as for generations the Pimas have used for their summer residences. Even now it was almost impossible for us, with double-roofed tents, to endure the heat within them. Furthermore, even should I re-engage the discharged workmen I could not resume excavations at Los Muertos owing to the inundated condition of the roads in that section, so I concluded to have the ramadas set up as rapidly as possible, and then if time remained to make an exploration trip to the Superstitions. This, too, for the reasons heretofore given, being urgent, the Expedition might lose an important collection of specimens and data possibly unique.

The night was very clear, and the morning (*Friday, March 11*) clearer still and warmer than ever. When at an early hour the Mexicans returned to camp, Vicente and Ramon brought as presents to Mrs. Cushing and Miss Magill some very beautiful flowers which Vicente quite gracefully presented to them. This Vicente was not only the pleasantest, but also about the most efficient man we had in our employ. He exercised such care and judgement in unearthing the decorated jar and other delicate remains in the house-mounds at Los Muertos, that I concluded to send Mr. Garlick merely to place the workmen at Pueblitos for the day and leave them there under Vicente's charge, then return to assist Burgess, the two Indians and ourselves (whenever the rest of us might be free to lend a hand) in rearing alongside the Sibley tent and in front Miss Magill's, the projected ramada. The work on the latter progressed so well after Mr. Garlick's return that by noontime the entire framework of the roof—stout, very long poles supported by pairs of heavy crotches and reaching almost across the entire southern end of the campus—was erected. Meanwhile, I was occupied nearly all the morning in dictating to Mr. Hodge, a work which, under the broiling shelter of his tent, was quite more unendurable than the labors of the men outside in the broad sunlight. Toward afternoon the heat became so intense, indeed, that the ladies were driven to seek

refuge, with their writing and sketching materials, in one of the covered buckboards, there to sit under its shade and get such faint breaths of air as alone were stirring.

During the afternoon we all assisted, more or less, in the construction of the ramada. Great sheaves of cane and arrow-bushes were cut from the river flats, brought up, roughly wattled into heavy, thick mats, and spread out on rafters supported by the crotch-and-pole framework. The experiment, even before fully completed, was demonstrably a success, and toward evening the whole work of it was so nearly finished that I decided it would be feasible, even so soon as on the morrow, for Mr. Garlick and myself, with Weta as a sort of retainer, to set forth on the very desirable trip to the Superstition Mountains. Until it became necessary for us to visit the ruins toward sunset, Mr. Garlick was accordingly occupied in fitting up the smaller of our buckboards and in getting out provisions, forage, and various appurtenances for our journey.

Whilst we (Mr. Garlick and myself) were away visiting the ruins in the evening—our stay being prolonged by the gathering of a load of wood as well as in the examination of the work of the day—news which created great excitement was brought into camp by a traveler, namely, that some of the Apaches at San Carlos reservation had murdered Lieutenant Mott, the Commissary Officer there, and had gone on the warpath. But meanwhile I found that the men under Vicente had labored faithfully, but that aside from clearing out the rooms examined previously, had accomplished little—no relics of importance having been found.

On our return to camp I was met by the news which had just been received there, and was earnestly besought by the ladies and the other members of the camp not to undertake the expedition to the Superstition Mountains, as this would take us, so the traveler had affirmed, into the heart of the country to which it was supposed the Apaches had retired. But I had lived long in the Southwest and heard many exaggerated stories of such outbreaks, and was not, therefore, satisfied (since this was obviously the most important time for such a trip) to delay longer our exploration. Still I did not wish to be foolhardy, and immediately visited Tempe to learn what was possible in regard to these rumors. The reports given to me there were of the same vague and exaggerated nature, although everyone seemed to be greatly excited by them. I therefore persisted in my intention to set forth on the day following, merely deciding to turn off from the main road to the Superstition Mountains and first visit Camp McDowell in

order to learn directly from the Commandant of that Post precise particulars in regard to the Apaches. Mr. Garlick, therefore, continued until late in the night making preparations, whilst I spent the evening with Mr. Hodge dictating not only such letters as it was necessary should be written before my departure for an indeterminate number of days, but also outlines of notes in our itinerary which both he and Miss Magill were carefully keeping as well as possible from day to day.

Early on the following morning (*Sunday [Saturday], March 12th*) we put our firearms, etc., in order, took some light tools for reconnaissance excavations, fitting out Weta with appurtenances for his tough little mule, and at about eleven o'clock were able to set forth for Camp McDowell.

Crossing to Tempe we followed the road which leads eastward from the latter place along the southern side of the Salado for some five and a half miles to the point where it ascends from the river plain to the only moderately high but even more level and extensive gravel-strewn plateau, here dignified by the name of "*Mesa*." As we turned the summit I was first able to see near at hand the remains—already dimly observed from the heights near Camp Augustus—of the most extensive ancient settlement we had yet seen, or I had ever dreamed would be possible for us to find within the limits of the United States. Before us, toward the north, east, and south, a long series of elevations which I at once recognized as house- and pyral-mounds, lay stretched out in seemingly endless succession, and off toward the northeast of the road we were following, in gigantic contrast to the surrounding brush-covered and monotonously distributed low mounds, stood the yellow, almost angular slopes of the great central temple-mound which had once formed the place of worship and citadel of the dwellers in this far-reaching cluster of pueblos.<sup>49</sup> I could not resist the temptation to turn from the road and visit this tremendous mound. It was the largest and with one exception the highest we ever found in the Southwest. Standing on its summit and looking from end to end and down on the terrace which seemingly it surmounted, it was almost impossible to conceive what was nevertheless a sober fact, that this huge elevation had wholly resulted from the crumbling away and slow consolidation of dirt and concrete walls, not one of which remained visible. Looking to the south, nearly half a mile from here, stood a lesser mound which, nevertheless, in some pueblos might itself have been regarded as a great central mound.<sup>50</sup> Again, toward the east, another, and toward the north and northwest yet two others could be seen. All these lesser temple-mounds reared their yellow crests

just above the surrounding thickets of sagebrush, greasewood (here very rank), and scattering mesquite trees. The northernmost was the largest of all these lesser temple-mounds. In height it nearly equaled the central mound at Los Muertos, and apparently had about two-thirds its extent. It was, I judged, considerably more than a mile from the central mound on which we stood—compared with which it was almost little—and all the intervening space, and the surface as far beyond as we could see on the level plateau, was dotted with house and pyral elevations. Here, for the first time, winding along just below the edge of the mesa and also just visible from this height, I observed the meandering depression of one of the ancient canals which had supplied their great city of pueblos with a part of its water.

Continuing our journey to the east, we found, still farther away on the other side of the great mound, a quite plainly marked depression still more clearly divided by lines of water-stones, which indicated the presence of another and yet larger canal threading the center of the ancient settlement. Wheresoever we drove were fragments of pottery exposed by the ceaseless wind and the wash of less constant rains, and we had never seen a section of country so rich in broken shell ornaments and amulets of the ancient inhabitants.

But as our departure from camp had been so delayed, we were forced to leave behind us these tempting finds and to push on toward Mesa City, a mile or two farther on (and which we must pass through for the purpose of buying a supply of ammunition), and thence to the ford at Lehi, some four or five miles north-northeast from the latter.

As we approached this ford I was astonished to observe in the banks of the plateau we were descending, somewhat to our right (toward the east, or up the river,) indications of artificial changes in the surface. A hasty examination of this point showed that there had not only been canals, although very small ones, leading from a greater canal farther in toward the ancient city we had just left, but also that these little channels had been cut in this direction with an express purpose, for they had been used in some extraordinarily extensive *hydraulic operations*! In fact (as afterwards became quite evident), the ancient dwellers in the cities below had thus employed water in washing down the banks of the river where especially rich accumulations of diorite boulders, suitable for the manufacture of their hoes, knives, etc., occurred. They had actually, at the far-off day of their occupancy of this valley, employed for these quarrying operations methods almost identical with those used by the placer miners of California and the Northwest today.

There were indications, also, in the banks farther down, not far above the ford to which we were descending, that the river had been tapped there by some of the canals of the lower cities, such as Las Acequias, Los Muertos, and perhaps even Los Hornos. But now the original mouth of this canal, stone-lined and concreted, showed like a wavy crescent (where the wear of the banks had exposed its section, several feet above the present water level). This was a point of equal interest, but to examine it adequately was just now impossible.

I had frequently seen from the crests of the high red buttes the greater and redder cliffs and towering battlements of Mount McDowell, gigantic in comparison, and had longed day after day to visit it, anticipating that certainly on some of its broad, smooth rock-faces at least would be found pictographs, and among its high, contorted crags, possibly, sacrificial grottos. It stood near the mouth—in fact, like a guardian over the waters—of the Verde River, and I thought it would prove to be, therefore, and because so near the sources of their canals, a central location for sacrificial shrines of the people of the lower Salado, and particularly of the ancient dwellers in the Ciudad de la Mesa which we had just left behind. So as the sun was declining we made our way around this mountain and reached the narrow gorge formed by its base and the opposite (eastern) cliffs, a wonderfully snug rock-shelter where the turf was so close and the grass so green that we determined to camp there and explore, in the fading light of the evening, such as we could of the slopes of this majestic rock mountain.

This rock-shelter was formed by a huge overhanging portion of the cliff and by great blocks of the same rock, some as large as houses, which had tumbled down on either side so as to form a snug recess. Upon one of these enormous fallen slabs of lava I discovered, before we were fairly dismounted from the buckboard, some clear-cut little petrographs, and while the others were making camp I clambered—with great difficulty, it must be admitted—to the top of this and then to the summit of a superincumbent one. There had been pecked in the upper surface of this latter rock a little mortar-like depression which sufficiently marked the place as a point of sacrifice, since on the summits of rocks around and under which plumed prayer-wands were customarily offered by the ancient Pueblos, may always be found one or more of these little depressions or mortars in which the sacramental paints used in coloring the petrographs were ground, that they might possess the mystic potency and purity of newness.

In scrambling down over this high, and as it proved, insecure perch, I slipped and fell some eight or nine feet directly upon the point of a smaller angular rock



which stood beside these great ones. But for the watch which (as a present from Mrs. Hemenway in the old Manchester days, and therefore as a sort of talisman) I always wore during these excursions, I would have been very seriously if not fatally injured; but the main force of my fall was broken by this watch, which being struck sidewise glanced over the sharp edge and caused me to rebound and fall four or five feet farther to the soft turf harmless.

As soon as I had recovered [from the] breathlessness of this exploit my enthusiasm began to rise, for I thought if we could thus at once and by mere accident discover evidence of a shrine *here*, other and far more important finds of the sort would be made among the heights of Mount McDowell. To add temporarily to our anticipation, we encountered, while making camp in the rock-shelter already described, signs that it had been a prehistoric habitation or refuge, in fragments of coarse pottery and traces of a crude stone and rubble wall with which the open front had once been enclosed or defended. But after some excavation it became obvious that the time of occupancy was so remote that few art remains could be looked for. Still, the observation was of interest, as it bespoke a period of cliff-dwelling even here at the very entrance to the great valley plains, and thus formed one more indication of the possible northern origin of, or influence on, the people of the pueblo cities themselves.

Until long after midnight we lingered over our campfire, for the night was cold, even in this nook. Weta insisted on remaining still longer and scouting for Apaches, whose powers of pervasiveness over a wide territory within a short time were well known to him. He evidently slept but little throughout the remaining hours of darkness, for several times his vigilant yet stealthy comings and goings awoke me; but with this exception the night passed quietly enough and the morning (*Sunday, March 13th*) dawned gloriously.

Whilst Mr. Garlick and I were preparing breakfast, Weta, gun in hand, disappeared, and was presently seen a mere speck of a boy in the distance, crawling along the giddy edge of a cliff, evidently intent on stalking some game (following the tracks of a mountain-sheep, he afterward told me). But we heard no gunshot. Indeed, there was no further sign of Weta until, just as we were putting away the breakfast things and making ready to explore the neighborhood, there was a tremendous rattling of stones and crackling of bushes and twigs. Weta appeared, tearing down toward us, headband streaming behind, and his eyes, to use the Zuñi expression, "like over-ripe onions" — the whites of them gleaming.

"Look you brother younger!" — he shouted, gasping for breath, — "I have

found a regular demon-devil of a creature up there!—a fat rattlesnake, tail, tongue, and all—but running on four legs! You must come at once; you must help me catch this whatsoever-sort-of-a-thing! His breath—by the moon he has plenty!—may be deadly! He puffs himself up like a horned-toad as he runs, and hisses like a wild-cat, and all the while keeps licking his tongue like lightning! Who knows, I say, but his fearful wind may already have foredone me? We *must* kill him,—rattlesnake-grand sire or no, and get some of his skin to burn for my betterment if I turn ill!” Thereupon he turned and fled away from me up the heights again, “in order,”—as he shouted back—“to herd the monster” until I should arrive.

When, after a very hard and hot climb I found Weta, there he stood, about half-way up the mountain on a little flat terrace, facing something driven into a far corner, and, leaning against the rock wall, wiping the perspiration from his face and forehead, he pointed to the little crevice, and said, in a whisper: “It is in there!”

I immediately stepped forward to see what “it” could be, Weta remonstrating and himself maintaining a respectful distance. When I succeeded in dislodging the reptile and recognized it as a Gila monster (this being the first one I had myself ever seen), I did not wonder at Weta’s perturbation. The creature was an unusually large one—nearly a foot in length, puffy, with a heavy, fat tail and very insufficient-looking legs; with an enormous head (flatter and shorter than that of the rattlesnake), and a still more enormous, shovel-shaped mouth. Its eyes were beady and wicked-looking to an extreme degree; its mouth repulsively black-lipped, and its fiery red tongue tipped with two black flabby needle-like points. But the body of this ungainly and hideous creature was exquisitely beautiful in coloring, for it was covered with minute, jewel-like protuberances or rounded pentagonal scales, and was gorgeously mottled by red, orange, rich brown, and glistening black color-spots. I told Weta that although the creature might well be named a “rattlesnake on four legs,” yet that it was only a “relative-rattlesnake,” and that although its bite was said to be harmful and its spittle baleful, if none of the latter touched him he was safe from the hiss and wind, and that we would not have to kill a grandfather after all! So we let the poor creature go.

I continued my explorations, wandering all over promising portions of the heights, searching in every hollow and chasm and grotto, all in vain. Aside from a few stray pictographs quite similar to those heretofore described, and fragments of rather plain red earthenware, just like those found in Tempe Butte, yet more

numerous, nothing rewarded my arduous climbings. The shards and petroglyphs were signs that many sacrifices had been made on the mountain, but so long ago these had decayed and vanished. So, wearily and dejectedly, I descended terrace after terrace and approached camp, whither "Don Carlos" (as we by common consent now called Mr. Garlick) had returned and where he was making everything ready for the continuation of our journey, yet waiting with great expectancy. I took one of our canteens, and slowly spilling to the ground a little water from it, scanned the laborious trails we had so painstakingly traversed, and named the great landmark "Mount Disappointment,"—and it was so called in our camps during all the rest of our stay in the Salado country.

Nothing now remained for us to do but to merge our disappointment in this christening and hasten on to Camp McDowell. The road wound from side to side along the Verde Valley, which, as we ascended it, grew wider and wider; and by and by as we were approaching the military post we saw now and then quite long reaches of medium-sized, ancient irrigating ditches, all very much deeper and more distinct here than in the lower country. Presently we came upon a ruin situated not far from the left bank of the river near where we forded it to approach Camp McDowell. It had been roughly built of lava-slabs, river boulders, and probably mud rubble; but the type of construction was quite different from that of the ruins in the lower valley. While in some respects it partook of the character of the latter, in many others it was more closely allied to that of the many-celled northern ruins, and apparently the outlying walls included all that had pertained to this one pueblo.<sup>51</sup>

The fragments of pottery we found there were inferior in character and finish to the decorated pottery in the lower ruins, reminding me at once of those we had found in our little rock-shelter.

At about noon we reached Camp McDowell and drove up at once to the glaring light-colored adobe corral walls as to some abandoned prehistoric town. It being Sunday, and excessively hot, no one was abroad. We saw neither soldier nor loiterer until well within the high corral gates. There an orderly referred me to one of the quarters where I was able to consult an officer. The Commanding Officer was absent with nearly all the men of his Post, but the young Lieutenant whom I interviewed was most courteous and gave me full particulars of the recent Apache outbreak. He told me that the report regarding the murder of Lieutenant Mott was only too true,<sup>52</sup> and that some fifteen of the Apaches had really broken away from the reservation and were supposed to be either in the neighborhood of

the Four Peaks (whither they had been but not yet encountered), or else possibly in the Superstition Mountains, whither renegades were always likely to betake themselves. He advised me, therefore, to defer for a day or two our visit to these mountains. The Lieutenant was expecting couriers either that night or on the following morning, with fresh information, and he invited us very hospitably to remain at the Post until their arrival; but as I learned from him also that a messenger bearing the somewhat discomposing news relative to the possible retreat of the Apaches to the Superstition Mountains, had already been sent down to Phoenix, it was necessary for us to follow him as quickly as possible to reassure our little party at Camp Augustus.

So we at once turned about, and enroute to Tempe made only one stop, namely, at the mouth of the Verde River, or rather at the point of its confluence with the Salado. There, even hastily passing as we did, I observed at one spot where the rocks approached the river, that extensive quarrying operations, so to call them, had been carried on in prehistoric times, the dwellers in the settlements below having found there a particularly good source of the blocks (of rather compact bastard-granite) which afterward we so often encountered in the foundation rooms and at the bases of mortar columns in the ruins of Los Muertos and elsewhere. This observation proved, later on, a most important one, and I shall have occasion yet again to refer to it.

Sending Weta on by a short cut across the plain lying between Mount McDowell and the red buttes surrounding Camp Augustus, in order to give notice as soon as might be of our returning, I stopped only long enough to locate this important point, then followed by the more roundabout way of the road.

We arrived in camp between eight and nine o'clock, finding all well, but, as I had expected, everyone extremely anxious owing to further rumors of Apache depredations which had been made both at camp and in Tempe. Weta's arrival had allayed these fears, and representing the statements I had received at Camp McDowell that the Apaches were well followed by soldiers and scouts, I was able at once to so far prevail over the fears even of the ladies as to decide on again setting forth for the Superstition Mountains early the next morning.

Mr. Hodge reported to me that during our absence Saturday, the Mexicans had been kept at work extending the ramadas, which, indeed, were now in fine condition. Aside from this little had been done, save on the part of Mr. Hodge, who not only worked steadily at the accounts, the dictation I had given previously to leaving, and re-drafts of the Patrick map,<sup>53</sup> but had also visited Elliston's

ranch where our mules were being pastured in order to see that they were still well cared for,<sup>54</sup> and at the same time to leave there “Douglas.”

In honor of our return, as the darkness deepened he and Miss Magill climbed the heights immediately above camp and lighted up a number of chollas and saguaros. They burned with all the brilliancy and beauty of pyrotechnic displays, making the surrounding hills and crags luridly and startlingly near, as though hastening toward us out of the darkness.

As I had returned to camp solely in order to reassure the party there, and felt personally there would be little danger even so far as intimated by the Lieutenant at Fort McDowell; and as our buckboard, teams, etc., were still in condition for the trip, we made a very early start on the following morning (*March 14th*).

Again we followed the river road to the ruins as before, and then to the Mormon settlement of Mesa City, heretofore mentioned. As we drove through the latter I found it to be one of the most orderly and best disposed towns on the river. The village sections of land were of large and equal size and divided from each other by roads running north and south, east and west. These sections were further but regularly subdivided into larger or smaller squares, constituting the separate holdings of individuals according to their rank in the community, some of these being mere gardens of only a few acres in extent, others fruit or grain farms of from thirty to sixty acres. In the midst of each lot stood the house or cottage of the owner, and into each a tiny irrigating canal or acequia led from the branch canals running along each, or in some cases every other street.

Every one of these lots, whether large or small, was cultivated like a garden, and already many fine crops were well advanced. Although the entire water supply was but limited, the communistic system before referred to was so admirably regulated that each land-holder received his due share at a stated interval. A regular order of succession was observed in the watering of the lands, so that a certain number of farmers or gardeners received their shares at definite times of the day, and a certain number of others at definite hours of the night; yet the watering of each garden and field was so timed that those who had received their last share at night during a given distribution, received their next share in the daytime, and the number of inches of water allowed to each was proportionate, not to the amount of land he held, but to the extent and needs and condition of his growing crops.

I learned from intelligent Mormons with whom I talked—while Mr. Garlick was purchasing some nose-bags and other necessaries for our trip at the town “Co-op” (co-operative store)—that a very large new canal was projected and that

in the same admirable proportional way, all the inhabitants of the town were required to do a stated amount of work (that is, according to their holdings) on this canal. They informed me that the upper portion of this canal (which already I had seen enroute to Fort McDowell) had been rendered possible to them on their first coming to the mesa, only by the reopening of the ancient canal which (we knew had, centuries ago) supplied La Ciudad de la Mesa. As this had already been cut through a series of elevations consisting of a very heavy concrete, or tufa-cemented gravels, a saving of not less than \$10,000 had, I was informed, been made.<sup>55</sup> I was greatly impressed, however, less by this evidence of the engineering skill and the enormous works performed by the earlier inhabitants, than by the example the Mormon system of co-operative irrigation furnished of the possibilities of such a system. It was at once evident that the amount of water supplied by the one moderate-sized canal then in operation would have supported only a comparatively small number of farmers if, as do American settlers, they had held their water rights independently, or on the basis of individual taxation. The example was one which could be almost directly applied, comparatively, to our studies of the more ancient irrigation system; for, as had so recently been observed by me, single great canals had evidently furnished the water supply of sometimes not fewer than three of the ancient cities. As these were far more densely populated than any modern settlements in southern Arizona, and were beyond question contemporaneously occupied, a somewhat similar system of co-operation in irrigation necessarily had to prevail amongst their ancient inhabitants, not only as between the different divisions of each city-cluster, corresponding probably to the separate house-mounds of each, but also as between one and another of the greater of the great clusters themselves.<sup>56</sup>

How far this was actually the system in vogue and according to what plan of succession, may be made, I think, very plain when, in future pages I come to recording our excavations and surveys of the water-ways of Los Muertos, Las Acequias, and Casa Grande.

Our stop in Mesa City was but a brief one. We pushed on straight across the apparently almost level plain stretching thence onward to the very foothills of the Superstition Mountains. The road was for the most part good, but as we neared the foothills toward the end of our journey it became very sandy and was but ill-defined, winding from side to side through dense groves of cholla, candelabra-like ocotilla, and other spiny desert growths.

The mountain fastnesses were entered by a winding valley (a in map Figure 37)

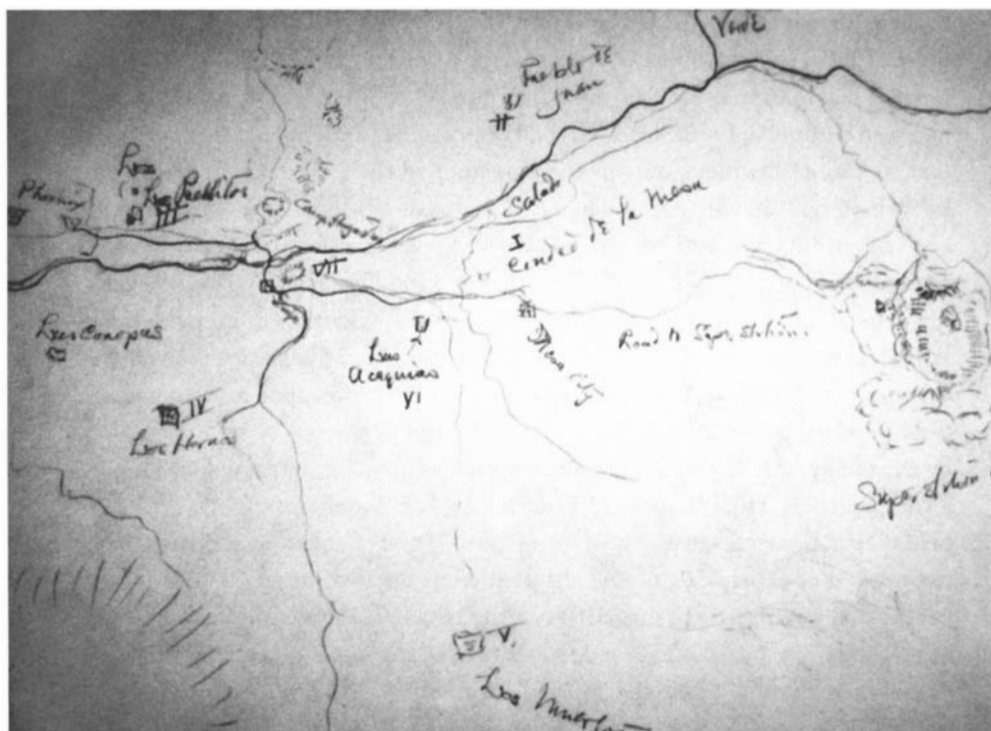


Figure 37. Map figure of Basin and cañons

—if such a deep but sloping cañon may be so called,—leading through these foothills almost abruptly into a deeper and somewhat more tortuous defile, the ascent of which, though gradual, was quite laborious. Just before sunset we reached the crest of this ascent and plunged at once down and over a very steep grade into a still deeper and wonderfully picturesque cañon stretch that led quite as abruptly, less than half a mile farther on, into a great basin or amphitheater. This was everywhere surrounded, except on the side whence we had entered, by rock walls, hundreds and some of them thousands of feet in height. Those nearest at hand were as red as brick masonry, whilst the overlying rocks were in some places banded with irregular strata of cream-color, varied and mottled by all gradations of shade between these two dominant hues.

As I have said, our road led down from the west through a rocky, lava-strewn hill which seemed to block the mouth of the tremendously deep cañon it threaded,

like the lock or dam of a canal, as it were. The only other break in the continuous, piled-up masses of rock around us was a ravine so narrow as to seem at a little distance a mere abysmal cleft. This led out from the very middle of the basin straight from its lower end toward the north, and at its threshold was a descending succession of deep pot-holes filled with pellucid water.

Toward the east arose one terrace above another, each higher one receding from a quarter to half a mile, and all finally crowned by a vast escarpment of black basaltic lava, along the crest of which stood, like sentinels with palisades between them, rows of great pine trees and gigantic cacti. Toward the upper or southern end of the basin the great red porphyry brow of the sierra loomed up like the shoulders and front of a titanic sphinx, at the face of which we had so often gazed from far away down the sunset Salado.

A deep arroya cut its way down through the center of the basin, from the base of those heights to the cleft-like outlet just described. In places it was so deep and narrow that it looked like a black shadow painted on the undulating sand and clay surface, for it had eaten its way through the soil and, here and there, deep into the underlying rock-bed. On the higher side of this, a few yards up from the pools, stood a lonely little stone cabin, between which and the arroya a rock corral consisting of several low-walled pens had been thrown up.

We drove down to this cabin immediately, hoping to find the owners, and to be permitted to outspan there for the night. But lo! when we approached we found the door slightly ajar, as though forced in, and there was no sign of present occupancy. On the contrary, everything looked as though the inhabitants had more or less hastily fled away. Therefore, Weta and I immediately began to reconnoiter, whilst Mr. Garlick unhitched the mules and made ready to feed and water them.

Weta took one direction down the basin valley, I the opposite, each armed with pistols and gun. I had proceeded but a few yards from the hut, up the arroya, when I observed coming over the red crest of a foothill about a hundred yards away, and already growing dim in the twilight, two or three cattle. I watched them, hoping that they might be followed by some one connected with the ranch, but quite a different figure met my gaze. It was that of a man, to be sure, but clad in buckskin, and walking with the peculiarly lithe yet shambling gait of an Apache. He carried a gun, and saw me almost as quickly as I saw him, but not soon enough to signal a companion to his rear who at the same moment also appeared. Both stood perfectly motionless against the darker shadows up the cañon, their gray buckskin forms showing dimly in the deepening dusk, and both without a



sign to each other or a single motion from side to side lowered themselves, sank so gradually that their movement was almost imperceptible, and but for having seen them appear I might have supposed them to be gray rock columns, then, a moment later, supposed I had been mistaken. Just before they disappeared, Weta approached me stealthily from behind, seeing my gaze fixed and peering in the same direction. I whispered *Tchish'-e-kwe!* ("Apaches"), and he, with a rapidity unexampled by anything I had ever witnessed before, disappeared (at least from the sight of any but the nearest of observers) by dropping as if shot, and wriggling himself into the little hollows and amongst the short bushes by the side of our trail. He pulled my leggings as he did so, and I also laid down, and aside from seeing very dimly a single head slowly obtruded once more above the crest, but a little to the left of where the two figures had first stood, we could get no further sight of either. We were in a quandary. Lying flat on the ground, but worming our way backward toward the hut, we held a hasty consultation. It was impossible for us to know whether there were only these two Apaches or a dozen more whom we had not yet seen. The situation looked grave. Weta whispered to me that he would "*wan' te-hathl'-i,*" or "feel around (scout) for a bit;" and with wonderful skill made his way rapidly, yet well nigh imperceptibly, up the side of the western rim of the basin, slipping from hollow to hollow and from bush to bush until—whilst apparently in full sight,—he disappeared even from my view. I immediately slipped around to the front of the hut, told Don Carlos of what we had observed, and asked him to place the animals close to the walls. Then, taking a couple of buckets, I crawled, pushing my gun before me, over the bare and fearfully exposed rocks which led down from the cabin to the pools, for it was of paramount importance to have at hand a sufficient supply of water for ourselves and our animals, in order, if necessary, to stand a siege in the thick-walled but unfortunately very exposed hut.

It took me nearly an hour to make three such trips as this, all the while feeling quite sure that I might be under observation, and by no means certain that I would not be "picked off" by some of the Apaches. But the growing darkness favored me, as it also did Weta, who, just after my return from the last trip to the pools, appeared in our very midst without having given a sign of or made a sound in his comings—this notwithstanding our vigilance. In the comparatively short time of his absence, he had scouted the entire upper portion of the basin, and had found, surely enough, traces of the Apaches in the trail-dust where we had observed them. But he ascertained that after taking their last observation they

had made off with considerable speed to the cliffs that at that point were near the eastern side of the arroya. This greatly reassured us, for it at least seemed to indicate that there were only two or three of the Apaches, or else that they considered our numbers greater than their own. Yet we arranged to keep guard throughout the night, each of us in turn, then built our fire with ostensible unconcern to strengthen any impression of our strength that may have been given, and for the same reason we displayed our numerous arms conspicuously in front of the hut, and sat down to eat as though nothing unusual had occurred.

As I was not well, I chose (near midnight) the first watch, bidding Weta and Mr. Garlick to sleep, if they could, until I should arouse them. In spite of the presence of our animals champing their grain and hay, in spite of my companions—one (Weta), under the wall of the corral not far away, the other stretched out just inside the door of the hut near by,—I do not think that any scene ever impressed me as did this, during my long night watching.

I have sometimes had visions of a far-away Border-land in space, where the mountains were like world-countries in grandeur, the valleys like empty seas in depth and boundlessness: where the great forms above and around me, the vast wastes of distance beyond me, were so long and cold and barren, so solemn and soundless and still, so steely gray above or so shadow-enshrouded below, that Time, the Mover, seemed to have stopped breathing and left a whole world, in an instant arrested, all beings therein chilled to stones more lifeless than the dead of yesterday, who at least have the form of the living,—lifeless as is a crusted skull or a fossil bone. I have felt, while these weird visions lasted, like an actual—merely sentient—part of the silence and deadness surrounding, fearing to move, speak, breathe even, as one in the presence of the risen dead might fear, lest I destroy even this last phantom of Destruction and Desolation.

Such a scene—earthly and real, yet withal measureless with words—was the one I watched in. It was cold; it was so hushed that the little sounds near me were loud in my ears, yet utterly lost in the vastness of that roofless, walled-in mountain silence. In the chasm below and at the foot of all the cliffs the darkness was blacker and thicker than coal, yet within it the deep pools gleamed with a light as blue and cold as snow-light, but as fixed, frozen, rayless, as the glaze of dead eyes. The sky was strangely illumined blue-white from zenith to border by the moon, somewhere below the mountains; no single ray, falling even aslant, penetrated this great gloomy hollow.

And the air was so breathless, so clean, so frosty, that it seemed solidly and yet

impalpably frozen, holding the very stars immovably fixed. They did not even twinkle, but simple stared, steadily and sharply yet lustrelessly, like a flame in strong sunlight; nor seemed they to move onward by so much as the breadth of an eyelash. The impression of fixity, of the absolute cessation of time, was so overwhelming that the thought of the Apaches disturbed me as a vague memory too uncertain to be real; and I watched for them only as if foredoomed to watch aimlessly, as if doing vigil in penance ere I might sleep, dead, with all I saw!

By and by the rising moon threw straight streams of light athwart the top-most cliffs, making the shadows below sharper but thinner, as it were. Slowly, so slowly that the sense of motionlessness was but increased thereby, form after form appeared by magic without cause or volition. They were strangely eroded gray columns which thickly crowned the crags and cliffs, and which had been unseen by us in the twilight, altogether hidden later. Now they were being touched up, inch by inch, imperceptibly, by the moonlight, and soon they stood out sharply against the still starlight in such fantastic array that it required hard looking and the aid of my glasses to determine that some of them were not Apaches—size, shape, color, even their very silence, which seemed stealthy and watchful as had the two figures we had seen a little while before—all these lent strength to this uncertainty.

I constantly scanned, through the long hours that succeeded, all these cliffs and forms, expecting that at any moment others would rise up from amongst them and, if unseen in so doing, cheat my closest scrutiny by their mimetic motionlessness. No change in those outlines occurred, however, until their nature was fully revealed, and in such stately magnificence that description is belittling. Yet when the moon had fully risen, there even it stayed, fixed like the stars, and with all this wondrous change no change seemed to have been wrought save only in my own looking; all the world seemed as dead frozen and stony as before, I only saw more, and more than ever it seemed as if Time would never return,—never! No wonder that the Ancients of that wondrous land tell of the countless destructions of men, monsters and cities, whole countries and regions,—changed to stone everlasting! No wonder they sought such scenes as this for their mystic midnight rites and sacrifices, deeming these latter as lasting as the mountain caves they were laid in! And this thought became so suggestive, as with the growing light my dream of a dead and timeless nature became less dominant, that I felt already amply rewarded for all the toil and risk of our journey by this new light on our researches, dawning in my mind. Still, the fantasy I have purposely dwelt

upon returned again and again as I sat down at last near the corner of the hut. The moon was in the mid-heavens, the shadows had shrunk into only the deepest hollows and defiles, where they were grown—even there—less substantial seeming. Anon the spell was upon me that my life, the Apaches, all things save this thing, were unreal, dead and gone. But of a sudden it was lifted! Out of the deepest hollow near the pools, something blacker than the shadows slowly, not very stealthily but rather clumsily, seemed to move upward and come on toward me breathing hard. I thought this strange, for an Apache,—imagined that it might be a coyote; but no, it was not sly enough for that! It would be best, in any event, to cover it with my gun! As it neared the camp its outlines became plainer,—yes, not a man, but a black, lank, four-footed creature. All doubts were soon dispatched! It made a dash for one of our grain-bags, *grunting* loudly! It was a long-shanked razor-backed hog!<sup>57</sup> I was exasperated; almost frenzied, instead of being relieved! I did not wish to attract attention by any unnecessary noise; yet, in view of the possibility of a siege, we could not afford to lose any of our grain. I picked up a heavy stone, and summoning all my skill and strength (born of much practice when a Zuñi), let fly. I do not think I ever made a more skillful cast. That heavy rock must have struck the hog full behind the ear, for with a loud squeal that sounded curdlingly like a human shriek of agony, he fell instantly into a deep arroya just beyond, and remained perfectly silent. At last I heard him making off slowly, grunting apprehensively as he went. There would be no further trouble with the grain-bags that night. But lo! the world was alive now; even this world! When all was again quieted, I bestirred myself to arouse Don Carlos, as this had been planned both by Weta and myself, since, if danger be apprehended from Apaches, one is always comparatively safe during the middle and later watches of the night. It is only just after nightfall or just before daybreak that they make their attacks, unless from ambuscades. Though plucky to a degree, Mr. Garlick was by no means in a serene state of mind. He had been most anxious that we at once undertake a retreat up the steep hill and through the narrow cañon and valley by which we had come; had urged this over and over, and frankly owned that he would prove a sorry fighter, he feared; so I had determined to give him this least risky vigil. Retreat, I knew even if there were only two Apaches, would be an extremely hazardous undertaking. Again, I was not in the least satisfied to give up an extremely important expedition like this merely on account of the chance that there were more than two or three of these Apaches. I thought that with the coming of daylight our plight would be no worse than their own, and

that if we then discovered there were more of them, we might better, with the advantage of daylight, scout the way of exit and then make good our escape to the open country.

When I looked in at the door of the hut Mr. Garlick seemed to have fallen asleep but recently, so I concluded that Weta and I alone would bear the burden of the watching. I crept out to the corral. There Weta had established himself in a well-protected corner on a dreadfully rocky bed and with but a single blanket, notwithstanding the exceeding cold of the night up there in that mountain valley. He had said, with true Zuñi manliness, that in times of danger it was "not well to seek comfort, for through its caressings one was wont to sleep soundly!" He gave evidence of the wisdom of his proverb as I did not need to arouse him. The first slip of my moccasin against a protruding stone found him up, open-eyed, gun in hand. He came forth, talking a little while in a low tone, then, urging me to lie down, immediately set out with rare courage and vim to make a circuit of our surroundings.

I was very cold, and rolling myself up in a blanket or two wormed my way into the forage underneath the buckboard, getting, thereby, two or three hours of very refreshing slumber. Toward morning I awoke and crawled out. Weta was sitting so close to and quietly against the corner of the hut — whence he might command the most extensive view, — that he seemed to be a part of the stony structure itself.

We both made another and longer reconnaissance in the dawning light, Weta going one way, I the other. Seeing no sign of a human being, we returned and laid down again. It was not our intention to sleep. Even had we wished to do so that would have been impossible. We were but fairly settled when two black hogs — others, surely, than the one I had chastised — stole up to the camp, and so startled our mules as to create a perfect uproar that immediately brought Don Carlos to a window, gun in hand. One of these pestiferous hogs, even under a rain of stones, caught up one of the nose-bags and made off with it, whilst the other grabbed a small slab of bacon, but by a vigorous chase we made them relinquish their spoil. Beyond this trifling though highly exciting adventure nothing happened until broad daylight revealed all of our surroundings, still showing no signs of the Apaches we had seen the night before.

We prepared breakfast at sunrise (*Tuesday, March 14th [15th]*) and, this over, Weta and I once more set forth to scout, this time every road of our environment — Weta to explore the upper portions of the valley, as before, and the entire roadway through which we had come (in preparation of a retreat, if necessary),

and I to examine the eastern side of the basin and follow the rocky arroya down as far as might be below the exit-chasm. I kept as much hidden among the bushes and in the arroya as possible, while exploring the east side from the point below where the Apaches had first been seen, and thence lower down toward camp. Passing through the narrow gateway of the arroya, beyond the pools, behold, only a few rods beyond, I found that it widened toward the right, branching further on and forming a wonderfully deep and picturesque winding valley. An arroya zigzagged through the level bottom, and at every turning point of its steep banks might be seen short, green turf and rank growths of cottonwood and willow trees, and on either side, too, very close at hand, the steeply ascending banks of talus, crowned by gray jagged cliffs of volcanic tuff and wild with hair-like grass and beard-like furze.

I think I had proceeded about a mile and a half or two miles north north-east down through this valley—everywhere so crooked that one could see only a little space along its course either before or behind—when as I was cautiously creeping through a particularly narrow pass I heard a light sound just above me among the rocks. I made one bound for the opposite side of the arroya, scaled it and climbed with might and main amongst huge masses of lava to gain a footing behind some very large protruding boulders on a little terrace above the point where I had heard the sound, for that sound was not such any animal could have made—it was the sound—was the clink of a piece of metal! I could not see what had made it; did not stop to—intent only on “getting the drop” on whatever produced it, whether a horse with a loose shoe or a man with a gun. Just as I reached the edge of the little terrace I was making for, and felt comparatively safe, I turned to take a look and saw an instant, vanishing patch of buckskin, and the disappearing barrel of a winchester. Then I climbed behind the black boulders and set up a clamorous Zuñi yell, calling for Weta, starting out and motioning with my arms, back whence I had come as though summoning assistance.

My position commanded that of my enemy and the Apache made off with no inconsiderable noise of falling rocks, but with such consummate skill that I never once caught a sight of either him, or even of his gun,—which he may, for aught I know, have left behind him. I did not care to examine into this matter either, but made my way, as soon as the sounds grew distant, far back, up the valley, keeping high amongst the rocks, then, at last slipping down to the bottom again, and hastening on to camp.

Meanwhile Weta had made a most thorough examination, and in the better

light that the day afforded had ascertained that there were no more than two of the Apaches. This quite determined me to make a little further exploration among the heights to the east and south especially, and even to spend another night in our exposed position.

Leaving Mr. Garlick in charge to keep guard and get a meal against our return, Weta and I (to act as spies for each other) set forth together. We first climbed the terrace immediately to the east. It was fearfully steep, yet was threaded by a deeply-trodden cow trail—a trail so rugged and difficult that it was an unexampled evidence of bovine engineering ability. When we crossed over the edge of this terrace, behold a little country shut away from, or more properly lifted out of, the whole world! Along the side we had climbed was, of course, the deep basin, the descent of which was everywhere steeper than at the point we had climbed. But three quarters of a mile beyond arose the crest of black lava with its palisade of pines and cacti. To the south arose apparently as much above this as above the valley below, the main and ruddier brow of the mountain, whilst toward the nearly opposite northeast there was a steep drop into the abysmal cañon of the Salado, and we could see across its hazy depths, far away, plateaus and mesa sides full of archaeologic promise but unapproachable. Toward the northwest this view was cut off by an excessively eroded, sheer wall of gray calcareous sandstone or gypsum tufa. Already I perceived in this the mouths of several grottos, and had high hope of finding there the sacrificial cave we were seeking. But glancing back eastward across this little country—for truly it was such—I saw a deep depression a little beyond its middle, grassed over and looking as if it had once been a mountain lake. All around it were miniature rounded hills and valleys, and on the farther side of it was a mound much higher and sharper than any of the lower knolls, and covered with shimmering flashes which I knew were caused by shards of pottery shone on by the sun. It was more extensive, too, than any of the house- or pyral-mounds in the ruins before, but it seemed in some ways like them. I crossed over to examine it, and found it to be a veritable pueblo, not of the southern valley type, nor yet of the type encountered near Eylar Ranch and elsewhere, but more like the ancient mesa-pueblos of the farther north—the so-called honeycombed structures. It was evidently very old, and whilst it had been constructed of mud and stones combined—fewer stones than are usually found in the northern ruins—it had nevertheless crumbled into a rounded, wide-spreading hill or mound. The sherds of pottery were of a very coarse sort, although abundant, and were precisely like those I had observed in the valley of

the Verde, which indicated still further that probably the ruin also belonged to the Verde or more northern type.

Whilst this ancient village stood between the high, eroded crest of gray calcareous rock referred to as bounding the plateau on the northwest, and the more imposing, shattered, everywhere columnar wall of basaltic lava which hemmed in the eastern side, yet it was nearer to the latter than to the former (see sketch map).<sup>58</sup> We therefore first ascended this forbidding black wall, hoping that not only abundant pictographs would be found on the huge blocks of lava which crowned it in the midst of the cacti and pines, but also that we might chance upon some ancient fortification, like some of those in Eylar Ranch region, or, in some deep fissure, might find sacrificial accumulations like those of more northern lava-fields. In all these respects, however, we were doomed to disappointment. But from the top-most point, the view toward the farther east was not only grand, but sublimely beautiful. I will pass it over with the mere remark that from that high point (the descent was so abrupt that at first we held our breath) we looked into a cañon-basin like the one we had left behind us—although profoundly deeper—arising from the farther side of which were cliffs of vari-colored sandstone, one above another in succeeding ridges and terraces until half the sky was shut out by the highest and farthestmost.

Treasure finds for some future archaeologist lie somewhere along the sides of that basin and in the heights and cañons beyond it—cliff ruins, no doubt, and certainly sacrificial remains, probably almost innumerable. But alas! we could not pause now to explore those depths and heights; we must retrace our steps quickly to the opposite, eroded cliffs, for evening was already coming near. So we descended and again passed the ruin mound, across the little dry lake bed, and then climbed the outlying steps of the gray, weatherworn cliff walls. In only one of the many grottos seen from below did I find sacrificial remains. This was one almost immediately encountered at the top of the first nearly inaccessible terrace. It was quite deep, and by the falling down of masses of rock, well protected from the winds, through the agency of which it had been originally excavated. Thus, back in the semi-darkness of this cavity I found quite well-preserved fragments of a carrying basket, a portion of a digging-stick made of some light but tough wood, and a nearly complete but very primitive bow, unquestionably of Stone-age make, since it was not (as are modern bows) notched at the ends (Figure 38).<sup>59</sup> I fortunately also found two or three very small fragments of prayer-wands, the plumes of which had long ago decayed but which were no less characteristic than were



those discovered some weeks previously in the cavern of Double Butte, south of Tempe.

The find was not in itself of great value, but as an indication of the place this labyrinthian mountain held in the esteem of the primitive people of the valley, as sacramental and mystic, was of utmost importance. It was, too, an absolutely trustworthy sign of the presence, not far away, of other sacrifices. It caused me great regret, just as we had discovered positive clues, to have to leave a region we had come so far and run such risk to visit. Still, unable to ascertain just how many Apaches we might have to deal with were we to remain until those we had seen could communicate with companions—perhaps not far away—it was manifestly imprudent for us to remain through another day. So, the sun being set, we had to descend without further searching and join Mr. Garlick at the supper he had prepared. Then with him we made preparations to leave as soon as might be in the morning.

The night passed quietly enough, save that we were again besieged—or our forage stores—by the hogs which had so far forgotten their lesson of the previous night, and were so dull toward further instruction, that I was forced to shoot one of them before we could get peace.

Early next morning (*Wednesday, March 16th*), after a final hasty reconnoissance of the road leading forth from the mountains, we again climbed the steep grade and set out down the long descent. In coming to the mountain we had not appreciated—so gradual was the ascent through the long plain from Tempe to these foothills—how far above the former place it was. Now we could see that the grade was really considerable, and as, added to this, the mules were quite assured that they were traveling homeward, we made excellent time.

Nevertheless, we did not reach Camp Augustus much before night fall. There I found everyone well, to be sure, but all more or less excited over a report which had not long before reached camp, of the recent killing by Apaches of a solitary ranchman or traveler—“somewhere in the Superstition Mountains,” the very ones we were visiting.<sup>60</sup> This news had, as a matter of course, startled everyone with wondering whether or not someone or another of us had met the same fate, and had we not opportunely returned a rescuing party would have been sent out. Our arrival in hale condition put a happy end to this state of mind. Again, after supper we were welcomed by a veritable firework display, so to call it, set off by Miss Magill and Mr. Hodge.

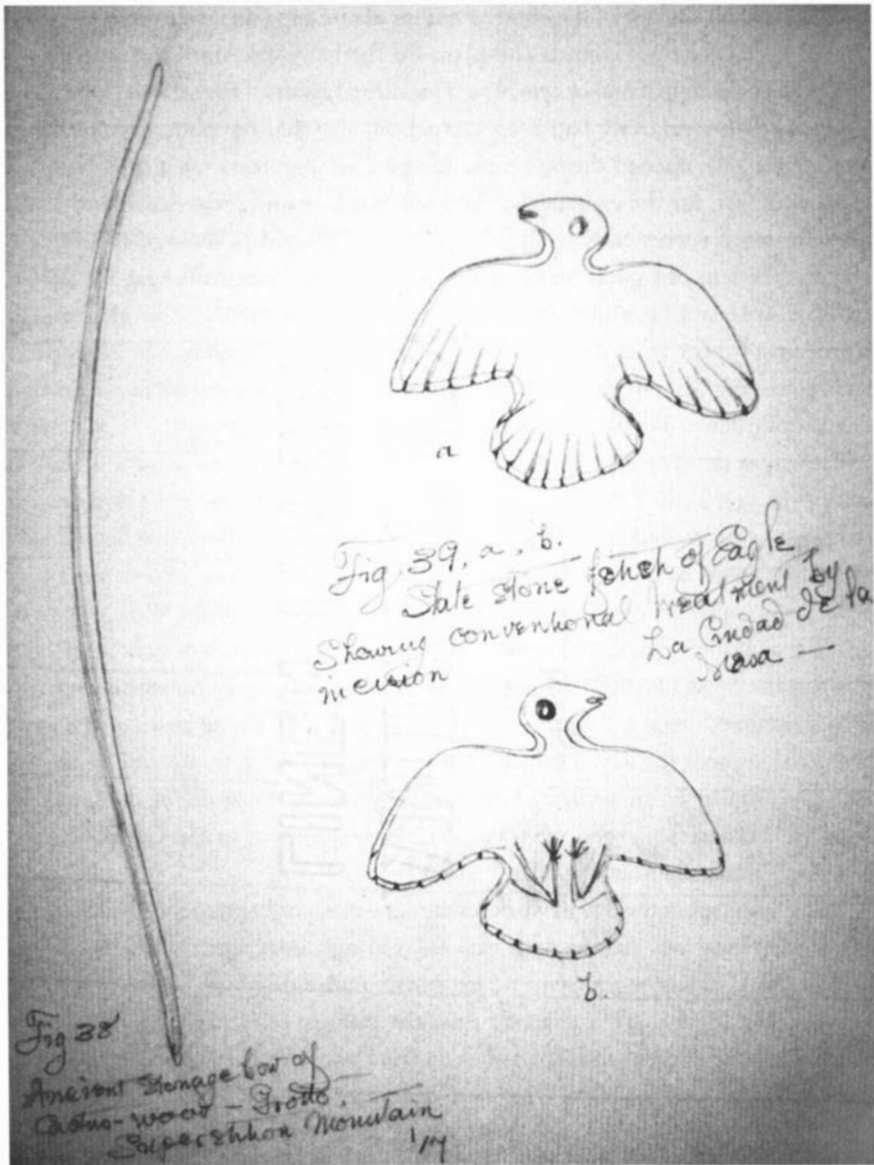


Figure 38. Ancient stone arrowhead from grotto in Superstition Mt.  
 Figure 39. Flat slate bird fetish found at Ciudad de la Mesa

We spent all the rest of the evening telling of our trip and adventures, too tired to take up the work of records and plans for further work, until the morrow.

On the morning of *March 17th*, when I resumed affairs, I found that during our absence camp-work only had been carried on, also that the photographic outfit had arrived. We opened the box containing it and were somewhat disappointed, I must confess, for the camera did not look as if it would prove sufficiently well made to work successfully in the sharp light and torrid dryness of this region, nor was the lens of a good make. Still, we hoped for the best in regard to it, and felt that at least a faithful even if dim record of our excavations might be kept by means of it for at least a few weeks. Meanwhile I dictated to Mr. Hodge letters requesting Mr. Graham at Zuñi to find if possible and forward to us through friends of mine at Fort Wingate my old but much better camera.

Learning that the roads between Tempe and Los Muertos were still in bad condition, and as the ramada was reported as being a great success, I determined to have it better roofed and a flooring of cane put into it, for the ladies had already taken possession of the eastern portion and had caused our mess-chest and other dining apparatus to be moved out into it from the tent. So whilst Weta was away hunting mountain-sheep (for which his late trips had given him great zest) and relics in the Mesa City ruins, I had Siwaititsailu, Burgess, the Mexicans and two Pimas occupied with bringing up and wattling together long mats of the cane brake throughout the day. This was, indeed, the only work that could be undertaken as, on our home journey from the mountains, the small buckboard had been broken and the larger one was also in bad condition, so Mr. Garlick had to be sent to repair them at Phoenix.

Mr. Hodge spent the day in work on the accounts, correspondence and records, and the evening was passed with various readings, interrupted only by the return of Weta who brought to me an extremely interesting bird-fetish (representing an eagle; Figure 39)<sup>61</sup> made of a thin, flat piece of schistose slate. This fetish was carved to represent the bird as if seen from above or below, with wings outstretched. The feathers of the wings and tail were indicated to be crude scratches both above and below; the head was turned, so to say, being cut in profile; one eye drilled above, the other below, and the legs and claws represented as spread apart and as though drawn up close to the body, were very characteristically cut into the lower surface (Figure 39). Both Weta and Siwaititsailu were so delighted with this unique specimen of fetishistic art that they pled with me to let them retain it a few days. The result, later on, was that they had produced quite a num-

ber of bird carvings, not all of them like this one, but applying the same styles of art, and it looked as though they really were preparing to take them back to Zuñi as *genuine* because, as they explained, “made *like* the ancient specimen and from *fragments* of others equally ancient.”

It being impossible to visit Los Muertos, and the investigations of Los Pueblitos having been carried far enough to substantiate my first suppositions regarding the at least partial agency of earthquakes in the depopulation of that as well as others of the ancient cities, I turned attention during the two following days (*Friday and Saturday, March 18, 19*) to the ruins of Los Hornos. I employed all the workmen—Burgess, Vicente, Jesus, and two new men,—in making excavations in the numerous pyral mounds of that cluster, but results in the way of collections were comparatively meager. The usual number of surface finds of interesting pot sherds, beautiful arrow-points, broken shell ornaments, etc. were, to be sure, made by the ladies, but no entire vessels were unearthed. We found and thoroughly excavated, however, an admirable example of one of the great underground ovens. This was smaller than such ovens usually were, but was singularly perfect. It consisted of a regular funnel-shaped furnace, about five and a half feet wide at the upper rim, the bottom extending down precisely like the end of a funnel to a depth of at least six feet, and being filled with fire-reddened stones and great quantities of ashes. The sides had been made of clay cement, which by many usings had been burned into solid, coarse terra-cotta, so that had we possessed sufficient means of transportation and a sufficient number of men, we might actually have excavated this whole furnace or oven entire, and added it to our collections.

In some respects this oven we excavated was like the great subterranean ovens (*mi'-ak-thli-na-k'ya he'-po-k'o-we*) used today by the Zuñis in “ripening” (that is, baking) such of their corn as remains unripened at the end of harvest time. Like these ovens of the Zuñis (Figure 40),<sup>62</sup>—although more perfect and regular—the underground bakeries of the more ancient people (Figure 41)<sup>63</sup> seemed to have been with draft holes; yet they were, also like their modern counterparts, often heated, not with fire directly applied, but by means of red-hot stones, for which such deep bottom-shafts as the one I have described were evidently used as receptacles, and in which cases draft-holes were not needed.<sup>64</sup>

We found in one of the last excavations made, a small, perfect slate of the kind already described in that portion of this report treating of the Patrick collection, shown in Figure 24. But it and several smaller very delicate surface specimens

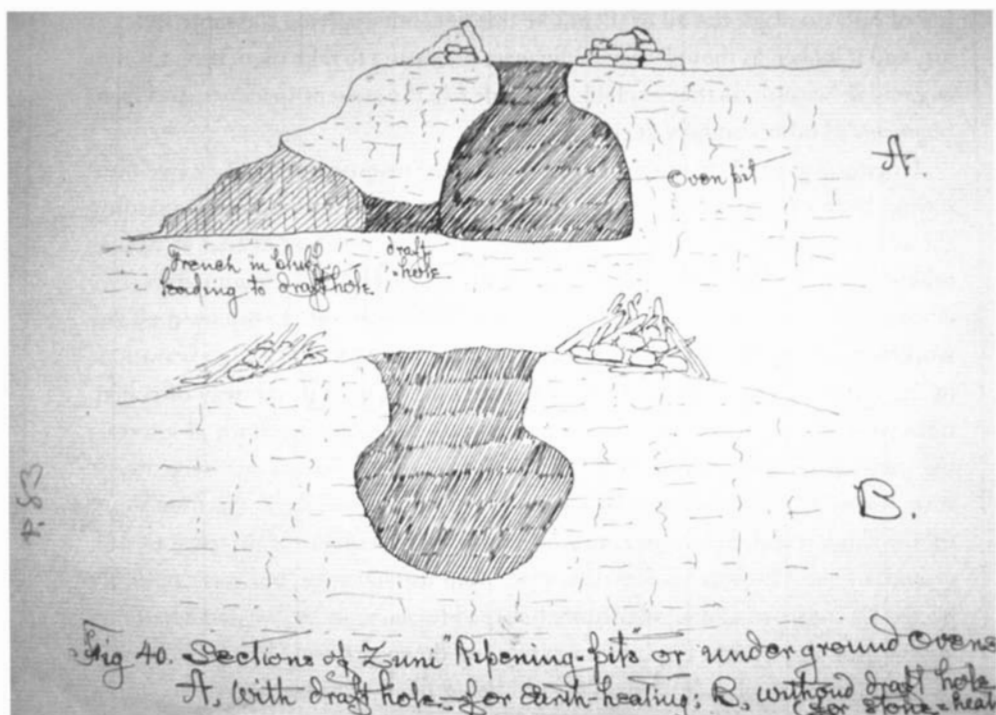


Figure 40. Section of underground Zuñi ovens

taken charge of by Miss Magill were, together with her change, color-box, sketch-book, etc., lost somewhere on the way home to camp by the falling out from the buckboard of her little traveling-bag. We did not discover this loss until after our arrival at camp, and were all dismayed by the accident—so much that Mr. Hodge (who having remained at headquarters all day engaged on the current accounts and the mapping, was not travel-worn), was quite eager to go at once in quest of the lost articles. This was impracticable, however, as it was already quite dark. Accordingly, very early on the following morning I sent Mr. Garlick, accompanied by Miss Magill.

At about mid-day they returned with the lost satchel, which they found quite undisturbed in the but seldom traveled cross road between the ruins and Double Butte. Miss Magill brought in, for sketching, a profusion of various little wild flowers. Almost in a single night and day these heralds of the desert Maytime had begun to bloom in all the low places of the surrounding plains. Also to-day there

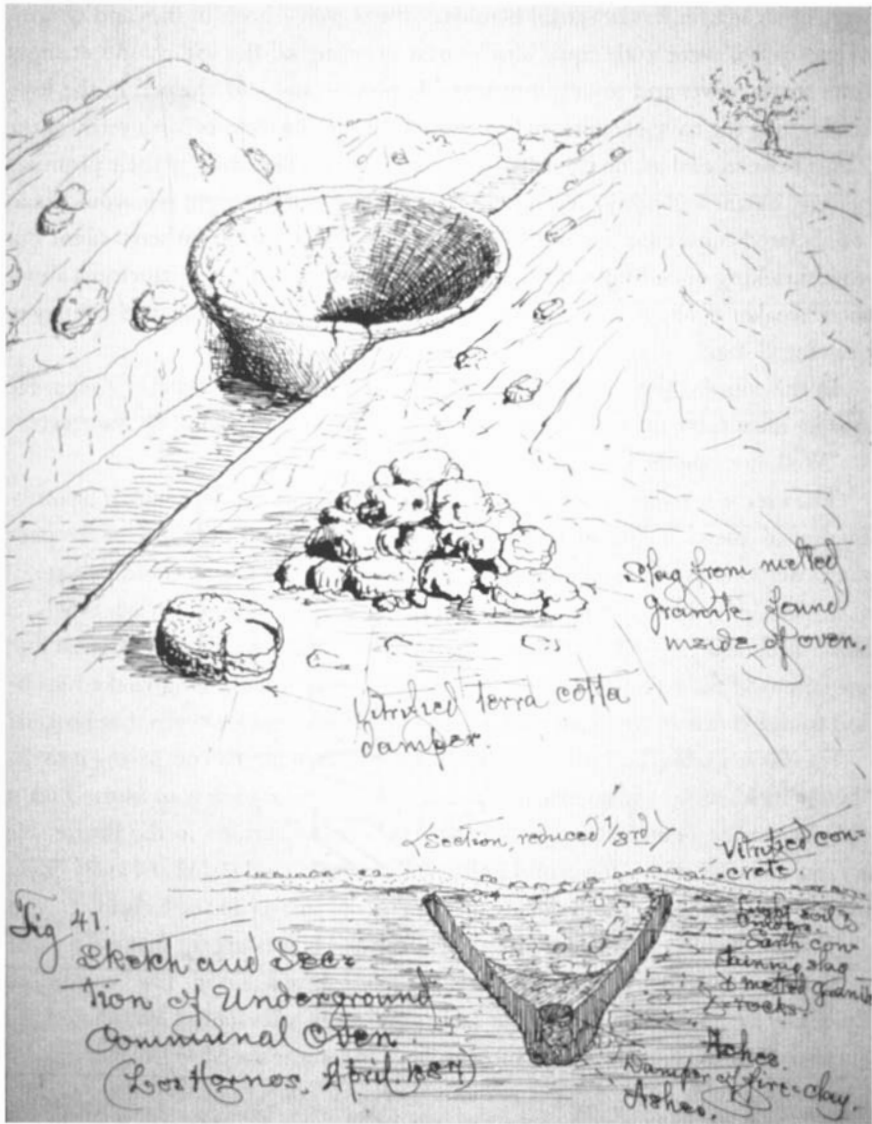


Figure 41. Section and sketch of Ancient Oven, Los Hornos

were other but far less beautiful heralds of the season—hosts of flies and swarms of mosquitos were with equal suddenness invading all the valley, and at night time frogs, newts and insects innumerable piped, sang and chirped in the lowlands along the river, seeming to have called these same flowers forth verily as the Zuñis believe, and as, no doubt, the ancient city dwellers did, by their promises of dewy dawns and rainy evenings. In the mid-hours of the night one would hear, too, belated bitterns or the snow-white cranes of the south, hitherto silent but now shrieking or calling across the wide valley with startling distinctness above these weaker voicings, as though still further to announce their glad-tidings to growing things.

In the course of the afternoon Burgess came to me with a rueful visage. He said he must leave us. I asked him why—“Is it your ‘land-claim’ up the river?”

“Well, not exactly; or no, yes, it is!”

The excuse was disjointed. He did not like leaving, either, yet felt that he must. By dint of question and inference I found that the compelling cause of the poor man’s despondency was chagrin (so deep that no words of mine could palliate it) at his fate, notwithstanding all effort, to fail of finding a single perfect bowl, let alone other things,—whilst the Mexicans were daily discovering jar after jar and specimens of the rarest interest, always perfect! The solitary long-necked jar he had found at first counted for nothing, for was not the neck of even that broken?

He was so melancholy over this circumstance, unenviously comparing it to the “better luck” of his companions, that I saw it was quite useless to assure him it did not matter, or to encourage him to expect better fortune in the future. He accepted his pay with a mournful pull at his hat-brim, and shambled away down the hill not to be seen more during all the rest of our stay in the Salado.

Toward evening Mr. Goodwin called at camp. He was urgent that we resume work at Los Muertos, representing that the roads were again in “fine” condition. Evidently he missed the variety our labors and stray talks lent to his isolated life out there. For my part I was only most anxious to resume the Muertos excavations. I knew that with every day’s operations there our collections would be rapidly augmented. With this in mind I devoted the following day (*Monday, March 21st*) to the enlargement of camp accommodations by having all the men at work extending lengthwise the main ramada and setting up frames of other shelters for the forage and kitchen stores. It had rained in the night and the early morning. The cane roofing of the main ramada had leaked disastrously. It was necessary for me to go to Phoenix at once—more rain threatening—in order to purchase

wagon-sheets with which to make curtains and fly-roofs for all these open-sided ramadas.

Mrs. Cushing and Mr. Garlick accompanied me to aid in these purchases, — numerous, perforce, as it also occurred to me that provision ought to be made for establishing at Los Muertos under Mr. Garlick a large camp of workmen in order that the very considerable loss of time involved in the daily journeys to and from the ruins (eighteen miles in all) might be avoided.

We were fortunately able to purchase at wholesale rates a number of wagon-covers, and laid in unusually large commissary supplies, of the more substantial kinds suitable for provisioning the proposed outlying camp of workmen. These transactions were completed at a reasonably early hour of the afternoon. But it was excessively hot — luridly so — and the roads were heavy with dust and sand, the wind furious, sweeping clouds of this light soil hundreds of feet into the air. Our progress homeward, therefore, was slow and disagreeable in the extreme, and our arrival belated thereby. The dust storm had passed by our camp, perched up there, as it were, on the pebbly hills, and the wind had been refreshing rather than otherwise, so that work had progressed admirably. Miss Magill had sketched the various spring flowers brought in the day before, and Mr. Hodge had at last finished the map and current memoranda.

Tuesday morning (*March 22nd*) was so clear and promising of dry, even if windy, weather, that I temporarily abandoned the idea of having all the men work on the making of fly-roofs and shelters from the wagon-sheets, and sent Mr. Garlick with all except one or two of them (the old hands having been re-engaged overnight), supplies with bedding, provisions and tools, in the two smaller wagons to make trial of working a side camp at Los Muertos. I directed that excavations at the southern end of the great central mound, and on the pyral mounds already marked out by me, be continued. Later in the day I sent Mr. Hodge out in one of the buckboards with a supply of fresh bread (for the baking of which our facilities at Camp Augustus were much better than the new camp could afford), fresh meat, etc. Miss Magill and Mrs. Cushing went along also — the former in order to make hasty sketches of anything that might have been found — I myself lately failing in health and being to-day so unusually ill as to be unable to leave camp or even to get about much. Yet I passed the afternoon in having the recutting and stitching together of some of the wagon-sheets at least begun.

The day became oppressively hot, windy, and, on the plains below, dustier. Our travelers returned at evening coated with this pollen-like sediment of the winds,



so that their costumes looked like those of millers, and the dark hair of the ladies was fairly blond as though bleached. I regretted to receive from Mr. Hodge news that the ditches were as bad as ever, Mr. Goodwin's enthusiasm having led him to forget several new ditches which had only recently been opened and which were as bad to pass as the older overflows.

The ladies brought in several fine surface specimens of the usual sort, with the exception of one found by Mrs. Cushing on a pyral mound near the great central mound. This exceptional find was a very highly finished, gray stone fetish, like (as were so many of these specimens we were finding) those of the modern Zuñis.

I was no better on the day following (*Wednesday, March 23rd*), having to remain in camp all day, so that I had the little force left us augmented by a Pima named "Juan de Tempe" (of whom much more hereafter), and a companion and another Mexican. The work of clearing up in preparation of reshaping camp was begun by them and the canvas work continued.

At three o'clock in the afternoon, finding myself still no better, I again sent Mr. Hodge and Miss Magill, this time alone, to carry food and forage to the side camp at Los Muertos, and to bring back report of progress. This time a new road was followed out around and quite a distance beyond Goodwin's Ranch. The travelers, however, before reaching the ruins, found that Mr. Garlick had started homeward by the old way. So, hastily depositing their load of supplies at the excavation camp, and without visiting the ruins, they followed and overtook him.

All three came in late at night. Mr. Garlick was excitedly enthusiastic over the revelations of the day. A new pyral cemetery had been found early in the morning and all day additional vessels had been unearthed, new forms continually appearing. I resolved, ill or no, to personally examine this, fearing that otherwise some of the finds might be disturbed before I could do so. Hence, early next day (*Thursday, March 24th*), nerved by the stimulus of excitement afforded by Mr. Garlick's account, I made, with both the ladies and Mr. Hodge, a trip to the Los Muertos excavations. This proved to be the last for me, of many days, for we again encountered some of those pestiferous flooded ditches, and were thus not only delayed at least two hours, but almost worn out with difficulties. At one point we were near losing our best buckboard team in crossing an apparently firm, just slightly moistened, stretch of ground not more than six feet across. The mules sank instantly to their haunches and became immovably stuck in the mud. The buckboard followed, the hubs and reach of which actually sank beneath the sur-

face. With the greatest amount of exertion Mr. Hodge and I started to unharness the team, when "Sue," the off mule, becoming frantic, made a footstool, so to call it, of "Trissie's" head and by this means reached terra firma, dragging her prostrate and much abused mate, buckboard and all, after her.

Mr. Garlick and the Mexicans had established down near our first excavations under the great spreading mesquite trees there, a little side camp. We reached it some time after noon and were greeted by welcoming shouts from the Mexicans who were just finishing a late dinner. To a man they turned in and helped us prepare our luncheon.

The new pyral cemetery (XXIIa) was situated nearly a quarter of a mile to the east-northeastward of mound and cemetery IIIa. Almost at the instant of opening, jars had been found, and throughout the whole day were, as reported by Mr. Garlick, continuously uncovered until thirty incinerary vessels, the greater number of them entire, had been laid bare. Amongst them were represented all the forms that had hitherto been discovered, as well as some quite new types, examples of which are shown in Figures.<sup>65</sup>

So many kinds of this sort had indeed been made that Miss Magill was kept busy almost from the moment of our arrival until the teams were harnessed for our return, yet could not finish the sketching. I directed, therefore, that future finds be only exposed to a slight extent, in order that, should temporary abandonment be necessary from stress of weather, they might be highly covered again for safe keeping, and for photographing or at least careful examination by me before removal.

I foresaw that the day's exertions would prostrate me perhaps for a number of days, so had Mr. Garlick accompany us home that provision might be made accordingly. I was not discouraged, for the collections I had seen in mound XXIIa, although as yet but partially revealed, would alone have filled all available storage space in camp, and it was requisite, therefore, that even if well I remain there to superintend thoroughgoing rearrangement and enlargement of tents, awnings, and ramadas. When we had first established Camp Augustus I had not anticipated making it or even Tempe our basis of operations for more than a few days, or at most a few weeks; now it seemed wise to make of the place a more or less permanent headquarters. Had anything further been required for at once determining this course, a drenching rain fell during the night which flooded the collections already brought in, as well as our provisions and forage, and dem-

onstrated the worthlessness, except for protecting us from the fierce heat of the clearer days, of our cane-roofed ramadas. Large awnings were now imperatively and immediately needed.

The remaining days of the month (*March 25-31*) were therefore exclusively devoted to this work. Some of the more ingenious of the men were set to work sewing together wagon-covers for making large canopies and awnings, as well as a shelter-tent for future side camps. Large numbers of tent-pins had also to be made from discarded wagon-spokes, no native wood being strong enough to resist the strain of the heavy winds which now daily swept over the valley; and the underlying gravel and hard tufa of natural calcareous concrete was, moreover, almost impenetrable. Cottonwood poles and other like supplies had also to be brought from distant ranches, and in such work all of the men not engaged in tent making had to be employed.

Weta and Siwaitisailu, watching Dah Yung's struggles in baking bread for our large force with only two small Dutch ovens, concluded to add their quota to the general sum of improvements. So in two days they had erected a fine, large dome-shaped oven near the kitchen ramada, as well-shaped and deftly arched as any built by the women of our native Zuñiland! They were very proud of this, and so delighted with the pleasure it gave Dah Yung that they were ever ready when present on baking days, to aid in the "heating up." Stray Pimas watched this process with unflinching interest, "not unmixed" — Weta declared, "with a sense of envy;" for he likened their beehive-shaped, mud-plastered little straw huts to this oven, affirming that it was a fine large temple by comparison. It at least had one window — the smoke hole! "Such when not in use are the homes of our *dogs* in Zuñi," said he, "wherefore let us call the Pima village above here *Wat'-sit He'-po-k'ya-ḡwan* (Dog-oven-house-ville)."

When their talk was translated to Dah Yung he was fired with a desire to see that "bakely-stove-place." The next morning he disappeared after finishing the usual morning camp work, but ere long returned, bearing in one hand a fine little Pima basket and under his left arm a loudly-complaining chicken done up in a piece of gunny-sacking. Dah Yung was heated, but happy. He was full of a generous plan for fattening the chicken and making a fine feast for "Missy Cussey." But lo! on the following morning the pullet laid an egg, which so delighted the thrifty Dah Yung that he reprieved her sentence of execution indefinitely.

On the first of April I sent Mr. Garlick to Tempe to make a dark-box I had devised for use in developing negatives and in other photographic operations. Weta

was sent with him to proceed to the ruins and look after the partially exposed specimen left there in situ—but, as we thought, fully covered over—for photographing. He returned early, reporting that some of the jars in mound IIIa had been uncovered, broken, and two or three of them scattered far and wide, evidently by a party of Pimas, as was shown by their barefoot prints. Apparently they had objected to this exposure of so many dead, fearing ghost influence in the wind as a consequence. I at once, therefore, detailed both Weta and Siwaitisailu, equipped with arms and provisions, to go and keep guard over the specimens left at Muertos during our enforced absence.

With the orderly arrangement of camp which, by the close of March, we had nearly effected, all branches of our work were benefited. The Sibley tent, occupied by Mrs. Cushing and myself (*a* in sketch plan, Figure 42)<sup>66</sup> was pitched at the southern end of our little village of white tents and four- or six-legged cane-backed shelters. Close under its side was Miss Magill's diminutive tent (*b*), looking like a little gable-roofed kennel by comparison. In front of these was the great ramada (*c*), one end sheltered and extended by a huge sheet awning, under which were piled safely at last our specimen boxes and the collections already gathered. In a line with this eastern end of the ramada were the three nearly equal tents of Mr. Hodge (*d*), Dah Yung and the two Indians (*e*), and of Mr. Garlick (*f*). Alongside the last was a pile of forage bales and grain bags, covered with canvas (*g*), and a few yards to the east the substantial feeding racks made fast to the ground and to a couple of scant-leaved trees to which our animals were tethered (*h*), whilst between them and fronting the three tents were the wagons and buckboards (*i, i, i, i, i, i*), so placed that any one of them could be driven out or back again without the moving of any other. The northern side and northeastern corner of the campus was occupied by a huge canvas shelter (*j*) which being subdivided served as a storage place for tools, harness, working supplies, etc., and in the southern end for provisions and kitchen supplies. Contiguous to this was the kitchen awning and general dining ramada (*k*) which with its wood pile and oven filled the middle of the western side of our elongated quadruple camp, thus enclosing a small but free square or court from which each tent, awning, or ramada was readily reached. Miss Magill sketched the camp, which now looked not only picturesque, but so much like a little village that she and Mr. Hodge proceeded to give such names as Cushing's Court, Minstrel Avenue, Garlick's Corners, and Fly Center,—the last especially applicable to Dah Yung's provision ramadas we used.<sup>67</sup>

Increasing interest in our researches was felt by the residents of Tempe, Phoe-

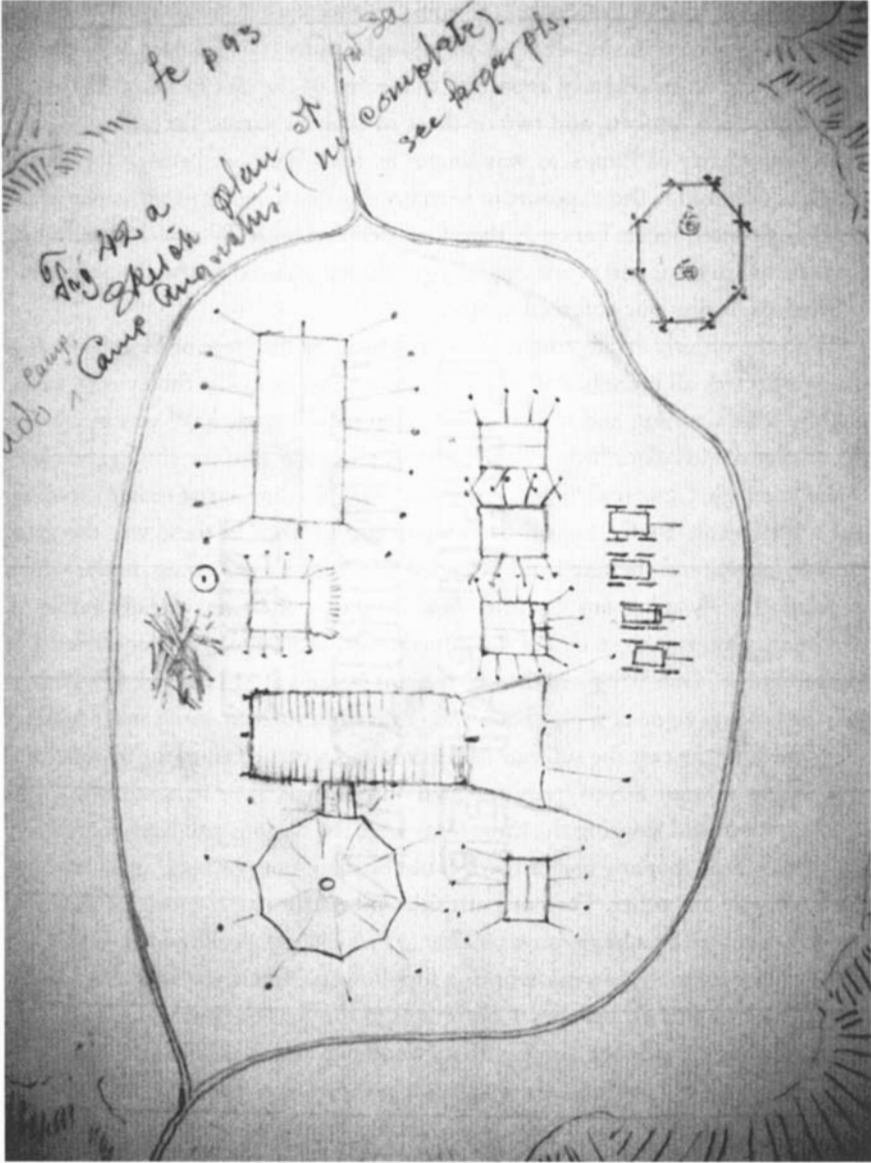


Figure 42. Sketch plan of Camp Augustus

nix, and other neighboring places, and especially by visitors from a distance. No sooner had our camp been put in order as described,—on the very day (*Friday, April 1st*) of this achievement, in fact—than Mr. Hayden of Tempe (the founder of that now thriving settlement) brought as callers on us the venerable and celebrated lecturer on phrenology, Professor Fowler of New York,<sup>68</sup> Dr. Goodfellow of Tombstone,<sup>69</sup> and Major Earll [*sic*] of California.<sup>70</sup> As I was slightly better this visit was particularly pleasant and in many ways of interest. Dr. Goodfellow gave me much information regarding the ancient remains in the vicinity of his own town in the southeastern portion of the conjunction between the northern and southern types even more pronounced than that of the Verde. The general conversation of Professor Fowler, too, evinced a remarkable and unusually accurate familiarity with archaeologic as well as with other sciences. He was to deliver two lectures (*gratis* for some worthy purpose), one on that evening, the other on the following, and cordially urged me to attend. For the present, having conceived a considerable liking for this remarkably vigorous old man of ninety, with his strange long face, his white uncut beard and hair, and his amazing fund of anecdote and information, I felt greatly inclined to accept this kindly bidding, and being still better by evening had the buckboards harnessed and the whole party of us conveyed across to the hall over the store of Messrs. Petersen, Armstrong & Co.<sup>71</sup> There was a large audience, who listened with the wondering attention that was wont to be bestowed in the most cultured centers fifty years or more ago wherever this same lecturer chanced to appear. Despite the disapproval of the many claims made for the so-called science of phrenology in those far-off days, I could not but yield admiration to this ancient man, still as firm in his faith as ever, as enthusiastic as a youth over his high mission, and through his wealth of experience with men in all conditions and regions, the most remarkable reader of human character I have ever known.

At the close of his lecture he called me up, much to my regret, and insisted on sketching to the assembled natives the characteristics, as judged phrenologically, of the “young scientist in your midst.” This he did flatteringly, of course, but with rare insight. I cannot readily forget his saying, among other things, that there were certain traits in me—those, indeed, preëminently useful in my studies of primitive phases of life and mind—which would lead me into not merely lines of research which would for long be misunderstood and thus undervalued, but into acts and operations which would be also for long misconstrued by the best

and wisest friends of my work and of myself alike—prophesies other details of which I forbear from adding, which have since been fulfilled to the last letter.<sup>72</sup> At the close of this exposition he asked me, as a kindness to the people of the valley, to give some account of our work and of its objects. This I did, greatly pleasing all the audience thereby, and to the intelligent interest this aroused I owed the always cordial helpfulness and good favors of land-owners far and near, on whose ranches our work happened from time to time to be carried on.

I paid for this simple little trip most dearly, for during the next day (*Saturday, April 2nd*) I was prostrated with a painful return of my illness. Toward evening Pima Juan came in to camp. He was greatly concerned about my illness, coming and going between some of his companions and myself until nearly sunset. At last he came close to my bedside and sat down. He had evidently diagnosed my case and felt that I ought to be exorcised by an incantation. He proved to be a shaman or priest-doctor of one of the esoteric orders of his tribe, and after learning to what clan I belonged, and other points in my history as an Indian, very earnestly and kindly, I thought, urged me to let him treat me by incantation and rite. I was extremely interested, and was just thanking my fortune for the illness, with all its pain, when Weta came to my cot and also sat down. Beginning to talk to me in Zuñi in the most unconcerned way, and making gestures calculated to deceive Pima Juan, he proceeded to inquire minutely into all the latter had said, and then to earnestly solicit me not, under any circumstances, to submit to this treatment of an alien magician. Power might be gained over me, thereby, he said,—especially if a cure were effected—by this Pima and his people, which could not be shaken off for a lifetime. Certainly my heart would be estranged from my Zuñi people, from my very Brotherhood of the Bow, thereby, and more probably still I would never outlive the slow poison of magic which would be, by this black incantation of a barbarian, instilled through my ears into the time beats of my heart, and mingled with the sacred and saving breath I had won from the fathers of Zuñi. Siwaititsailu joined solemnly and earnestly, even tearfully, at last, in this appeal, and I saw that Juan would have to be refused. I told him, therefore, of my gratitude (which was certainly true enough) for his kindness, but told him I was under a Zuñi tabu of a definite period not to admit other treatment than that prescribed by the terms of the tabu. I knew he would understand the force of this as simply an insurmountable obstacle, and my comrade, Weta, vigorously testified to my every Spanish word relating it, whether understood by him or not.

Poor Juan was much cast down. To show friendship I asked him to bring his

wife with him next time and I would give them some work to do. This pleased him. Having some faith in the tabu, he presently brightened up and began to tell me of a fine ruin up the river where he would dig if I wished him to.<sup>73</sup> I thought this might be the one Weta had found, and was really anxious to learn more of it. Therefore, I urged Juan to return the next day and guide Mr. Hodge thither, or, if he would, pass the night with us. He seemed to have some fear of his kinspeople up the river, but finally decided to accept this proposal.

He ate a good supper and went away, but early the next morning (*April 2*)<sup>74</sup> returned, and after breakfast set out with Mr. Hodge, both on horseback, to find the place. They returned toward evening, and Mr. Hodge reported that the ruin was about five miles northeast of Camp Augustus and between two and three miles northward from the river. It was situated in a dense mesquite grove on the Salt River Pima Reservation. The main portion of this ruin was, he had found, quite similar to the temple at Los Muertos and at the other great cluster ruins, and was, as in all these cases, placed in the midst of numerous house and pyral mounds.

This cluster, which we named "El Pueblo de Juan," had been erected at a point where deposits of coarse gravelly material like that underlying Camp Augustus occurred; all the walls had been built up of a rubble composed of such deposits and the underlying calcareous substance which, from specimens brought by Mr. Hodge, I judged to be a sort of natural or partly natural hydraulic cement of excellent quality. The temple mound, which measured approximately eighty by ninety feet, faced north and south as nearly as could be determined, and stood nearly eight feet above the surrounding plain. Here and there the walls distinctly protruded from the accumulated debris of the upper stories of the structure. Like the great central mounds of Los Muertos, Los Pueblitos, Los Hornos, and in fact of all the pueblo groups in at least the Salado Valley, that of El Pueblo de Juan was circumvallated, though in this instance the defensive wall was closer to the main walls of the central structure than in most other cases.

Near the southeastern corner of the outer walls, a quite large, well defined reservoir was observed. Its unusually good state of preservation was attributable to the adjacent dense mesquite growth which acted as a brake against the drifting sands of the plains surrounding. The existence of this reservoir with the remains of its supply canal, almost as well marked, so far north of the river in this portion of the valley was highly significant, and the site of the pueblo doubtless marked the extreme northern limit (as did Los Muertos the southern) of irrigation in the



eastern portion of the Salado valley. The irrigation ditches of the Pimas did not, Mr. Hodge observed, extend to within perhaps a mile of this ancient one. Yet the finding by Mr. Garlick and myself of canal sources high up in the banks above the present water level of the river near the Verde junction readily explained the original much higher area seemingly reached by the ancient system of fluvial irrigation to which the canal discovered by Mr. Hodge pertained.

Had it been possible for Mr. Hodge and his solitary guide to make excavations during their brief stay at Pueblo de Juan, I had no doubt that complete vessels and other specimens would have rewarded their search, since Juan and other Pimas reported that such had from time to time been found there by their people, but that either through indifference or else as a "ghost-laying" ceremonial, perhaps, they had invariably been destroyed. Mr. Hodge brought with him, in addition to the fragments of building material, quite a number of stone knives, perfect and imperfect, also some chipping and pecking stones of the usual materials and forms, and a few small fragments of pottery in no wise differing from that of the other groups save in coarseness of texture.

As the trip had been quite easily accomplished, Mr. Hodge was not loath to visit Los Muertos also, in order to bring back Weta and Siwaititsailu, for I contemplated early on the following day the sending out of our entire force under Mr. Garlick to again establish a side camp there, and feared they might be in sore need of provisions and rest.

The contemptuously comical accounts Weta gave of the Pima "residences" up the river, and the stories both he and Dah Yung told of the life there, induced Mrs. Cushing, Miss Magill and myself to plan a trip to the place. Our interest was increased by Mr. Hodge's account of the ruin and its surroundings. But when Sunday morning (*April 3rd*) came I was too ill to leave camp, and Miss Magill alone was taken by Mr. Garlick in the little buckboard. Her report, written out in the evening after their return was so characteristic and vivid, despite the haste of its preparation that it is introduced here as of unusual ethnographic and narrative interest.<sup>75</sup>

"In the Pima village I noted several interesting facts. The Indians are very primitive and quite poor, and there are only few of them left in this settlement; all the others are living on the Gila. There are apparently only two industries at this season—both performed by the women, while such of the men as are present lie around sleeping,—these were pottery making and basket weaving. The former is crude work and is accomplished with a flat pebble inside the jar and a wooden

patty such as butter-merchants use (Figure 43)<sup>76</sup> outside, both being wetted before using. Their great common red jars for cooling water are admirable. We use them in camp, covered with sacking and suspended by ropes, and as they are very porous the water exudes from the jar and cools its surface by evaporation. The baskets are made of willow and arrow-weed splints, wound around finer splints or grass stems, several in a bunch, which are spirally coiled and stitched as the work progresses, each spiral being finished as is the final coil or rim. A bone awl is used for making the hole between each alternating pair of splint wrappings of a coil already finished, for the insertion of every third splint wrapping of the succeeding coils. The ends of these splints are not fastened, but simply cut off close when the work is completed, this having been kept wet during the weaving process. The black splints are colored only on the rounded side, showing that the yellow osiers from which they are made are dyed before being slitted to form the splints.

“There was only one grinding stone in each house, propped up loosely on four small stones with the stone muller on top. This muller is of a natural pebble shape, except where it had been worn in grinding. Water-bottles were made of the long-necked variety of gourd, the narrower end being cut off to form the nozzle which was corked with a corn-cob. The paint-slabs and mortars of the natives are similar to those used in Zuñi, being made of boulders artificially hollowed out.

“The houses of the Pimas are virtually hollow mounds with doorways about two feet high, all opening to the east. The fires are made inside of these huts, in the middle, on the floors, and as there is no exit whatever for the smoke except the low doorways the rafters and framework are blackened and shiny with soot. The walls are of brush wattled to the framework and plastered over with mud. The beds are made of sand covered with straw mats, and the dogs and chickens live quite comfortably with the rest of the family indoors.

“The hen which Dah Yung brought to camp the other day is essentially Pima, as she insists, now that she is allowed to go at large, upon staying in the round sibley tent, which she doubtless thinks is a big white mound, and therefore lays her eggs there. In only one Pima house did I find food prepared, and was relieved that in their impoliteness the inmates failed to invite me to partake, for it was most unappetizing to look at, and necessarily more so to eat. The meal which I saw consisted of a wheat gruel and something else which looked more like greasy dish-water than anything else. At one house a woman offered to shake hands with me, but nowhere were we asked to be seated or to come in. The women showed

a mild curiosity about the number of my petticoats, and at some of the huts they examined my garments quite as critically as I would allow.

“In the village were some frail-looking square structures made of wattled brush, but all of these were closed with great logs piled against the doorways, hence I could not see into them. Most of the inhabitants were sitting or lounging in ramadas, where they evidently pass most of their time in summer. I noticed a number of little three-quarter circles built of logs and branches, about three feet in height (Figure [43a]),<sup>77</sup> in the center of each of which was a pile of ashes and several large stones. As the women were making pottery in them, and as several new jars were standing around, I assumed that they were also burned there. In the firing of their pottery the Pima women use wood, not dried sheep-dung as do the Zuñis, from whom they differ widely, too, in other things, especially in the matter of politeness, for they are rather surly than otherwise.”

As additional work remained to be done about the camp in order to fit it for the severe weather which we now daily apprehended (the sky being clouded and the wind constantly blowing almost a gale), I kept all hands at work there during Monday and the greater part of Tuesday (*April 4-5*), with the exception of Mr. Garlick whom, with the ladies, I sent to Phoenix for the purchase of additional outfitting and such supplies as would enable us to brave a constant storm if need be.

Judging from Mr. Hodge's report in regard to El Pueblo de Juan, and from the surface specimens brought in by him, that it might prove productive if excavated, I had arranged with Pima Juan when he left for his home on the Gila, to return with his family as soon as might be in order to camp in the neighborhood of the ruin and there work by himself for a few days. During the morning he came in, bringing his wife and a little girl. He was immediately provisioned and sent forth—over the very rough intervening country, in his rickety one-horse wagon—to the ruins.

On Wednesday (*April 6th*) I sent Mr. Garlick again to the ruins of Los Muertos to re-establish there the side camp, and to leave in it for the remainder of the week three of the most efficient excavators among our workmen. Returning early in the day, Mr. Garlick continued to work on my photographic dark-box, which, with the exception of a ruby light, was now complete, and which I was very anxious to test.

As afterward I found this dark-box exceedingly useful, a description of it may prove of value to future explorers. It was made of carefully selected lumber,

matched and jointed together with white-lead so as to be perfectly water- and light-proof. The box (Figure 44)<sup>78</sup> was 3 × 3 feet square, 18 inches high, and bisected so as to open, but unequally, much as does an old-fashioned square valise. The upper or shallower lid was designed to be elevated at right angles to the lower, and held in place by jointed hinges and two slender braces, and it was fitted with shelves or alcoves to receive bottles, various chemicals, and apparatus needed in developing pictures, etc., being pierced also in the middle to admit a large pane of ruby glass, which was protected on the outside by a board slide. The lower or deeper portion was divided by partitions into two unequal parts—one for the reception of the plates to be developed, slides, etc., the other to serve as a sink, which latter was furnished with a valve-closed waste-pipe. Iron sockets or staples were added exteriorly to the four corners of this portion for the insertion of stout slanting wooden legs. To the upper corners of the (when elevated) upright lid other staples were secured for the insertion of two long arms to support a rubber-cloth canopy, square at the top and rounded at the sides like a well tucked, inverted skirt, the waist of which formed a man-hole (Figure 45).<sup>79</sup> The supports and legs could be taken out, the chemicals and other material packed in the lower portion, the skirt canopy thrust inside, and the box closed for transportation and the roughest of usage in good condition.

On Thursday (*April 7th*) Mr. Garlick went to Phoenix to purchase the necessary ruby glass for this box. It was an unusually fine day, considering the recent boisterous threatening weather, and our reconstructed camp was so trim and picturesque that Miss Magill spent almost the entire day in making a charming little water-color sketch of the tents, ramadas, wagons, and all the surroundings, an illustration of which is here reproduced from her pen-sketch of it.<sup>80</sup>

Unfortunately toward evening Juan came back in a state of despair. Evidently the provisions we had supplied him, though plain American fare, were unusual for his people. At any rate, his little girl had probably eaten too freely of them, and as a consequence was dangerously ill with cramps and high fever. Scarcely anything had been accomplished in the way of excavation, and as Juan was suspicious that this work of uncovering the remains of so many dead by him, a Pima, had much more than the unaccustomed food to do with the desperate illness of his child, his excavations had to be discontinued. Their sole result was the exposure of well finished walls of a room in one corner of what had been the Temple, plastering from which was coated with a hard finishing coat, made of gypsum containing brilliant mica-like flakes, which must have rendered the apartment

resplendent when, long ago, the firelight danced on the walls during midnight assemblies.

Toward evening the wind again increased and it became very cloudy. Juan had no sooner departed and Mr. Garlick returned, than the wind rose, clouds thickened, and the day closed threateningly.

The wind was so high on the following morning (*Friday, April 8th*) that in some way a spark or ember was blown from one of our fires into the cane flooring of the large ramada. Quite a conflagration resulted, which for a little time threatened to burn the whole southeastern portion of the camp. But we luckily were able to quell it, and no damage to our collections, stores, or even canvas awnings was done. All day the wind increased, became fiercer than I had ever known it in that region; so strong, indeed, that stones—some of them an inch in diameter—were thrown violently against the tents or sent spinning for long distances across the hilly terraces east and west of us. A suggestive object lesson, this was, of some of the agencies which have carved into such fantastic and majestic shapes the mountains and mesas and even the rocky arroyos and low gravelly plateaus of these arid, rarely flooded expanses.

With the sinking of the sun the wind fell, much as it does in spring-time in the Zuñi country, and the ladies escorted by Mr. Hodge and called for by him later on, went to a ball which was given by the people of Tempe in honor of their various visitors and of ourselves. I was still so ill that it was not possible for me, however, to attend.<sup>81</sup>

On the last day of the week (*April 9th*) it was necessary to send for the Mexicans, and to again fit out Weta and Siwaititsailu for keeping guard at the ruins during their Sunday holiday. When the men returned I was overjoyed to learn that in continuing excavations at the eastern end of the great central mound (as I had directed they should do), they had found a massive wall extending from the end wall lengthwise apparently through the center, and, according to their description, skeletons of two or three large-sized individuals were buried in cists partly within this wall. They reported that these finds had been partially covered up to protect them from rain which, as they were about to leave the side camp, had already begun and continued in fitful showers to fall until into the night.

Easter Sunday (*April 10th*) broke dark with clouds and again uproarious with wind which was so strong that it strained to the utmost the guy-ropes that held our canvas, and threw dishes, sticks, stones, and all loose articles in confusion across the little court in the center of our camp. This storm lulled for a little while

in the forenoon, and Messrs. Hodge and Garlick drove to church in Phoenix. At noon, however, the storminess again increased to a fury so great that, although excessively ill, I had to exert myself almost continually the entire afternoon in refastening broken ropes, driving tent-pins (which on the western side of camp whence the wind came were plucked out at times as readily as though they had been mere slivers pushed into soft ground), and in weighting down all loose objects outside the shelters.

There were numbers of Pimas gathered about the kitchen embers late in the day. Notwithstanding the high wind and cloudy sky, we were none of us especially cold, yet it was noticeable that these poor creatures, accustomed to much hotter weather at this season of the year, no doubt, were actually crowding one another with more or less violence to get closer to the fire, over which they shivered visibly from head to foot.

Mr. Hodge and Mr. Garlick returned somewhat before nightfall. This was fortunate as, this time, instead of diminishing at sunset, the wind increased, and to add to our plight it began to rain again. We were kept busy until a late hour, all of us, in weighting down with heavy stones even many comparatively heavy boxes of specimens and stores, and in reënforcing tent fastenings. Frequently during the night, also, it was necessary for us to sally forth in force to repair damages wrought by this storm.

Toward morning (*Monday, April 11th*) the wind lessened, but torrents of rain continued to fall, and had not the camp been in the best possible condition, scarcely any of us, let alone our possessions, would have been safe. Soon after sunrise there was a lull, and the Mexicans came from their homes to be taken back to the ruins. But just as breakfast was over the rain began again and increased so much that all work whatsoever had to be suspended. Nevertheless, Mr. Garlick had to send out to the ruins to bring in our two Indians, about whom we were considerably concerned, exposed as they had been with but the most temporary of shelters. But they came in to camp on his return, wet as water spaniels, but in the most good-natured of moods.

Before night it had grown very cold. Nearly everyone in camp had been made more or less ill by the previous night's exposure, and when, for a little while toward sunset, the rain lessened and the distant mountains all round us became visible, they were covered more than half-way down their slanting sides with a tenting of snow, which so sharply outlined them against the dark cloudy sky that those to the north and east—which were nearest—seemed almost impending

over our little camp, at moments, then, with the shifting clouds focusing them afar, seemed so distant that they looked like regions of a celestial world.

Throughout the night, during the day and night following (*Tuesday, April 12th*), and until the afternoon of the next day even, (*Wednesday, April 13th*) the storm continued. By three o'clock of the latter day, however, there was such promise of clear weather to the experienced eyes of the Mexicans, that, having been directed to return as soon as possible, they came into camp and I immediately sent them out to Los Muertos with Mr. Garlick.

The photographic dark-box having been completed, I made a first trial of it, inserting the plates in the holders, under its shelter out in the bright sunlight; and then taking a southern view of camp (Figure 46)<sup>82</sup> and a photograph of some of our choicer specimens, proceeded to develop the plates thereof. Considering the fact that these were the first photographs ever made by myself alone, the camera worked well and the dark-box was a perfect success. I was so encouraged by this moderate success, and, with the passing of the storm so much improved in health, that I made ready so that, if possible, I could visit the new excavations at Los Muertos on the morrow, have the skeletons found there carefully uncovered and cleaned, and make photographs of all of them, as well as, if possible, of some of the pyral cemeteries.

My health was even better the next day (*Thursday, April 14th*), which dawned gloriously, nearly all the clouds having been swept from the sky during the night, and the weather (still tempered by the snow-clad mountains) being, despite the heat of the sun, still deliciously cool.

Before going out to the ruins I again tried the photographic apparatus by taking one or two additional views of camp, and, succeeding fairly well with these, started at an early hour for Los Muertos, fully equipped for making photographs of the temple burials, accompanied by the whole party.

Arriving at the ruins I found that the discoveries in the great central mound were, everything considered, the most important yet made. As heretofore intimated, the Mexicans had, in further excavating along the wall revealed by their first excavations (a) at the southern end of the temple mound, encountered a massive central wall (b). I found, on examining this, that it evidently extended lengthwise through the middle of the entire central portion of the structure. Only about one-third of its extent, however, as yet was laid bare. In excavating near the end wall, along either side of this central wall, the men had struck (after penetrating the extremely compact surface deposit of the mound and removing some five

feet of the underlying debris consisting of loose earth and fragments of building material) a very firm, well compacted concrete floor. They had followed this, especially along the right or eastern side, some twenty five or thirty feet—(see plan of first temple-mound excavation, Figure 47).<sup>83</sup> About three fourths of this distance from the end wall they had encountered a comparatively low, bench-like structure of adobe-concrete (c), about two feet broad, joined to and built out at right angles from the central wall about four feet, and terminating in rounded corners. On uncovering this the men found that it was a moderately thin-walled sarcophagus (Figure 48),<sup>84</sup> the end of which had been inserted, as it were, in the main wall, and that it contained, lying at length, face upward, the skeleton of a very old man, its feet extended to the west, its arms and hands lying close to the sides, the skull and ribs much flattened by the pressure of fallen earth. At the head was a beautifully formed but plain pitcher of mottled red earthenware, and a bowl, slightly decorated, of the same kind of ware [that] was found near to his right shoulder.

A little to the east of this sarcophagus, and farther on toward the center of the mound, a rather remarkable columnar structure of the same adobe-concrete material (d) had been unearthed, rising from the floor some three and a half feet (Figure 49).<sup>85</sup> On the north side of this pedestal or column was a step, as it were, in which was formed a very regular little fire-bowl like the one discovered in the small house at Los Pueblitos, and like it also containing ashes and cinders. In front of this fire-bowl, and just above it, enclosed in a very small cist, was the skeleton of an infant, buried, like the skeleton of the old person, in a reclining attitude; and by its side I was overjoyed to discover a small figurine in well-burned terra-cotta, apparently representing a hairless dog like the Chihuahua dogs of Mexico—or at any rate a very small variety of the canine species (Figure 50).<sup>86</sup>

Still farther toward the center of the mound, but close up to the central wall, and likewise let into it as it were even still farther, was yet another sarcophagus (Figure 51, e in plan).<sup>87</sup> The skeleton found therein was that of a middle-aged man, and as the cist that enclosed it had been less broken down by the weight of the superincumbent debris, it was much better preserved. In fact, as it lay there when but recently exposed to the sunlight, it bore a remarkably perfect resemblance, in its indurated mud encasement, even to the corpse of a man. At the right side of the head of this skeleton stood a beautiful little jar (Figure 52),<sup>88</sup> elaborately decorated with black and reddish brown on a white ground, and at its knees was a large eating-bowl (Figure 53),<sup>89</sup> the first of its kind yet discovered,



and showing inside not only elaborate decorations, but also the open space in its marginal black line for the “exit way of life” heretofore described, precisely as do the decorated eating-bowls of Zuñi (compare Figures 17, 25, 26).

Midway between this last burial and the first one, but on the opposite side of the wall, was found yet another burial cist (f plan, Figure 54)<sup>90</sup> the end of which had been likewise let into the wall for nearly two thirds of its thickness. This also contained the skeleton, apparently of a middle-aged man, and by its side was placed the most beautiful decorated bowls it had been our lot yet to find (Figure 55).<sup>91</sup>

The adobe-concrete floor I have described proved to be the very solid ceiling of a lower story, the extent of the rooms of which I could not judge until further excavation had been made; but there was an opening, carefully plastered round at least one side, which seemed to have been a hatchway leading down by means of ladder steps—as do those in modern pueblos (Figure 56)<sup>92</sup>—in an underground chamber. Inside of this ceiling and floor, near the edge of the opening, I found that it had been plastered over, the usual cane matting laid in turn upon cross-sticks over rafter, as are the roofs of Zuñi and other pueblos today, but that these had entirely disappeared. Yet this concrete plastering or flooring—some five or six inches in thickness—was still so durable that in spite of this destruction of its original supports it had retained its place, still remaining nearly horizontal, although quite a space underneath it, along the central wall, was wholly free from debris it elsewhere rested upon.

As has heretofore been intimated, the great size of the central mounds of these pueblo clusters when compared with the lesser house-mounds grouped around them, their central location in reference to the latter, and their uniform disposition relative to the cardinal points, had led me to infer that they were the remains of temples corresponding more or less to the kivas or sacred estufas of the northern Pueblos. The massiveness of their walls and the occurrence around them of terraces of debris marking the presence in each case, as at El Pueblo de Juan, of a still more massive outlying and enclosing wall as if for protection, had led me to infer also that they might prove to be citadels and storehouses equally corresponding to the Tribal, Priest, or Father houses of Zuñi folk-tales and traditions.

Although but partially exposed, the structural details of this temple-mound at Los Muertos still further indicated that, although several times modified and rebuilt (as had been the lesser temple we excavated at Los Pueblitos), yet it had

originally been reared according to definite plans with reference to specific purposes, the main and enclosing walls at least having all been built up at one time. In this the greater structure differed from the surrounding houses, as shown by the walls uncovered in house-mound XIV. Rooms in this latter had been built (as plainly evidenced by unjointed walls here and there, and by ill-suited irregular extensions whenever occasion required) with reference only to economy of space and topographic or other exigent considerations. The inference, therefore, that these greater buildings had been elaborate compartmented kivas or temples (and citadel storehouses perhaps)—public or priestly buildings rather than mere places of residence—made it not difficult to account for the presence of the altar fire-bowl with its superimposed child's skeleton and sacrificial figurine of a dog, above described. The burial of skeletons within this supposed temple was at first less readily understood, for we had already learned that the greater numbers of the dead of Los Muertos were cremated and buried in urns at the foot of the various pyral mounds. Here, then, was evidence of two modes of burial in the same ancient pueblo cluster. Were these burials in the kiva temple earlier or later than the others? That they dated from the original occupancy of the temple itself was shown by the carefully constructed sarcophagi of material identical with that of the building, and by the presence in these sarcophagi of remains identical with those unearthed from the pyral cemeteries. On having the skeletons and accompanying objects carefully cleaned for photographing, I observed that in each sepulcher occurred one or more vessels of pottery symbolically decorated, and that none of these vessels had been broken when deposited as mortuary sacrifices.

It suddenly occurred to me that these burials might be those of priests as distinguished from the more ordinary clanspeople of the ancient city, and I then almost as instantly recalled the fact that the Zuñis and other primitive peoples, occupying a relative or similar status in culture, deposited with the shamanistic or priestly dead, various offerings intact, whereas in disposing of the more ordinary dead mortuary offerings were usually if not always broken or in some other way injured so as to be functionally destroyed before being buried—that is, in the native conception they were “killed.” Thereupon I had a large series of the vessels in pyral cemetery XXIIa, as well as in the cemetery at IIIa, carefully cleaned that I might examine, in reference to this idea, various vessels containing cremated remains of what I now supposed might be of *ordinary* dead. I was greatly interested, and my inference was strongly reinforced by discovering that appar-

ently in no instance had a vessel enclosing such remains in a pyral mound been left wholly entire. In most instances the larger vases or pots had been purposely broken at the bottom, and oftentimes, indeed, shards of other vessels had been introduced to aid in retaining the enclosed remains. In one or two cases where this had not been done neat little holes had been drilled through the sides of the vessels, corresponding, probably, to the supposed locations of their hearts, and in a quite large number of instances vessels, while not broken, had been violently cracked.

It will be seen by reference to a former description of primitive mythic conceptions of the functions and existences associated with food and water vessels that such a custom would quite naturally arise and that the vessels thus treated would be considered as literally "killed" by such treatment. The question remaining to be decided was that in the case of the more ordinary dead all mortuary sacrifices were thus "killed" previously to interment, whilst those accompanying the skeletons in the temples, which I supposed were the remains of priests or initiated shamans, were left wholly uninjured. In the former case, of course, the object in "killing" the vessels and other sacrificed paraphernalia was that the souls or useful qualities of these vessels might be liberated in order to accompany the souls (liberated by death and fire) of those for whom they were sacrificed.

Now, it is a belief of primitive peoples like those whose remains we were investigating, that the initiated shaman or the priest hereditary in a clan is able and accustomed to liberate his own soul in dreams, in trances during life, and finally at the time of death itself; and that he possesses a corresponding power over others as well as over other objects, with which, according to his conception, animate principles or soul existences are associated. It now became measurably evident to me that this not only explained the presence in the tombs of the temple of uninjured mortuary sacrifices, and the fact also that each interment contained symbolically decorated (and therefore presumably sacred) pottery, but also that these skeletons were really those of priests, shamans, or hereditary clan elders. The latter theory was substantiated rather than controverted by the presence, buried in a reclining posture also, of the skeleton of an infant. This infant was so young as to have been of unusual importance only in an hereditary sense, yet its importance was shown alike in the manner of its burial and by the occurrence, with it, of the figurine of the Mexican dog. As is well attested by anthropologic works, the dog had ever been regarded by primitive peoples as specially gifted in ghost-seeing

and in pathfinding, howling at night for unknown reasons, as well as always able to return through long and unknown regions of country straightway to an accustomed home. It seemed not improbably that this skeleton of an infant, placed so close to a hearth in an upper and probably abiding room of the temple, may have been sacrificed there. But whether sacrificed or not, the presence of a little figurine of a dog indicated that it was necessary in burying an extremely young child to bury with it a dog, that the soul of the latter might guide the soul of the former to the abiding place of souls.

In the present instance of later developments of this practice that [are] shown, for instance, in the dog sacrifices of some northern Indians, and particularly of the Eskimo, over the graves of children, and in our find at Los Muertos, [there] had taken place—and it was considered sufficient, therefore, in this case at least (perhaps because an exceptional one)—[the burial of] an effigy rather than [the] sacrifice [of] a live dog and [the burial of] its corpse—the effigy, of course, having been made alive and then killed for the purpose by magical incantations or other formulae. It is noteworthy, for example, that the custom of sacrificing and burying slaves and domesticated animals with the royal dead which had prevailed in Japan through unnumbered centuries previously to those immediately antedating the Christian era, had been changed to the practice of forming and sacrificing with the dead merely representative terracotta images of slaves and creatures at the beginning of this era. This example might be indefinitely and interestingly exemplified by many other citations; but the significance of the child burial and sacrifice in the temple was considered by me sufficiently established to form the basis of the above inferences, and these added amazingly to the interest of our researches into the sociologic and other conditions of the dwellers in these ancient cities. I exercised the greatest care, therefore, not only in having Miss Magill sketch each particular interment, and Messrs Hodge and Garlick plat the disposition of the sacrificed remains of each, but I also secured as many characteristic photographs of these sepulchers as possible, only one of which, a general view, is here reproduced (Figure 57).<sup>93</sup>

During the whole afternoon it was fortunately somewhat cloudy and thus not so glaringly light as altogether to destroy the negatives which I took. I secured in addition to the above view a very beautiful general one of the pyral cemetery at Mound XXIIa, so far as then exposed (Figure [58]).<sup>94</sup>

As the day, though so long, had not sufficed for a thorough examination of each

of the numerous finds made during my sickness and necessarily long-continued absence, I had all of the skeletons and many of the other remains very carefully covered with canvas, and by the time this was accomplished it was late, and we of the Camp Augustus party were forced to leave. Thus closed the most interesting and significant day we had yet spent among the ancient ruins of the farther Southwest.

PART V



Afterword



# The Monumental and the Mundane in Southwestern Archaeology

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*Curtis M. Hinsley and David R. Wilcox*

Cushing's Itinerary, unfinished and fragmentary though it is, nonetheless represents a remarkable literary and aesthetic achievement as well as a significant marker in the history of southwestern archaeology. Prior to Cushing's generation the human prehistory of the North American continent was usually portrayed as discontinuous and disrupted: great, anonymous races of the past ("Mound-builders") had been overthrown through war and cataclysm, leaving only their mysterious structures behind. Their savage successors, the "Indian" occupants of the land at the time of European contact, were assumed to be ignorant and unreliable on matters of ruins and remains, since they represented (indeed, they had supposedly introduced) a superseding and intervening period, doomed itself to be eclipsed in turn by the current Euro-American settler population.

There was great aesthetic satisfaction in such a vision of the past of the North American continent. The late John Brinckerhoff Jackson, America's premier historian of cultural landscapes, astutely observed some years ago that the notion of "ruins" presupposes a view of historical discontinuity and restoration. In this "cosmic drama," a distant time of harmony is succeeded by a period of disruption and neglect, a sort of "Dark Ages," which is followed in turn by the present, "a time when we rediscover and seek to restore the world around us to something



like its former beauty.” The central aesthetic requirement in this story of decline and revival is the intervening period of darkness and destruction, because it provides the occasion and incentive for restoration and recovery,<sup>1</sup> which may in turn contribute to a sense of national political and cultural purpose.

The last quarter of the nineteenth century — Cushing’s professional lifetime — saw the transition from a view of North American prehistory as discontinuous and romantically mysterious to a growing sense of confidence that, after all, continuities could be painstakingly established; and it is significant that the site of this coming scientific paradigm was the American Southwest. Part of the fascination of Cushing lies in the fact that he straddled these worlds, drawing a romantic and imaginative style from one but at the same time leaning on the historical and scientific reliability of experience and observation, in the certain conviction that continuities and migratory sequences between the prehistoric and the historic could eventually be confirmed for the region. In this development, Cushing and his generation also underwent a fundamental shift of material and aesthetic expectation: from the monumental of Old World archaeology to the mundane of New World digging.<sup>2</sup> It was a vital move toward a chastened, disciplined approach to southwestern explorations that would only become finally established with the generation of Alfred Kidder.<sup>3</sup> The tone was set early, though, by William Henry Holmes in his 1876 report on the ruins along the Rio Mancos: as he approached the cliff dwellings, Holmes wrote, he found himself “led to wonder if they are not the ruins of some ancient castle, behind whose mouldering walls are hidden the dread secrets of a long-forgotten people; but a nearer approach quickly dispels such fancies, for the windows prove to be only the doorways to shallow and irregular apartments, hardly sufficiently commodious for a race of pygmies.”<sup>4</sup> While lyrical descriptions of the natural and human landscapes of the Southwest would continue for the next generation to be peppered with images of castles, bulwarks, and towers<sup>5</sup> — images drawn from Sir Walter Scott, Wagnerian opera, and elsewhere — alongside the romance grew as well that early shock of sobriety, Holmes’s “nearer approach” of observation and science that ultimately would dispel the fancies of imagination.<sup>6</sup> And along with the new sobriety came critical new appreciation of the material remains underfoot, not the monumental finds of Pompeii or Troy, to be sure, but the mundane treasures of America’s prehistory: rush matting, cane cigarettes, stick bundles, and thousands upon thousands of potsherds, strewn about the land or cached away for generations in caves filled with cholla spines and the leavings of desert creatures.

Still, the metaphorical promises, the definitions of “greatness” and “significance” couched in terms of Old World models, persisted in Cushing’s and others’ language. As late as 1906 Fewkes was boasting to Hodge that he would make the Casa Grande the “Pompeii of the Southwest”;<sup>7</sup> and in 1899, still deeply befuddled and hurt by the outcome of the expedition and only two years before his death, Cushing confided to his close friend Stewart Culin that he just did not understand either Hodge or Fewkes:

Isn’t it strange altogether that Hodge, who got his start from me (I have just seen a list of books and studies I recommended to him in the beginning); that Fewkes, who had all my mss [manuscripts]—the most important of all being my “Itinerary of Excavations” of the Hemenway Expedition, in which I told minutely how all Pueblo finds were to be definitely located by surface indications . . . and who was thus enabled to become the “Schliemann of America.” . . . Isn’t it strange and sad too, as well as absurd that they should so all dispute my authority, and should have questioned and insinuated so much as to the authenticity in the *source* of their own knowledge?<sup>8</sup>

Whether or not he was serious in comparing Fewkes to the discoverer of Troy, Cushing no less than others of his time alternated between the aesthetic categories and material expectations of nineteenth-century classical archaeology and the on-the-ground realities of the Salt River Valley—dirt, heat, and a buried past told in hard-won fragments.

For Cushing, the turn to the mundane was also a turn to the quotidian and the everyday. Pioneering the limits and implications of his “ethnological archaeology,” Cushing took seriously not only the stories and folktales of his Zuñi companions but even their momentary reactions and daily habits as revelatory evidence of possible connection with the prehistoric Salt River Valley. The structure of the Itinerary as a daily log of events in camp and field, including sandstorms, illnesses, and personal attraction and conflict, provides a rhythmic counterpoint to Cushing’s imaginative meanderings into the prehistoric lives being unearthed—their beliefs, their fears, their cooking and burial customs, their social and political configurations, in sum, their daily existences in a harsh and arid world. In the Itinerary, that is, Cushing textualized and narrated simultaneously the experience of “Archaeological Camping in Arizona” (as Sylvester Baxter called it) and the prehistoric lives beneath the dirt. Consequently, he moved, in his writing as in his mind, back and forth between the surface landscape of today and the subsurface

landscapes of yesterday, establishing a remarkably subtle pattern of understanding that connected (perhaps even conflated) his own communal enterprise with the objects of his study.

While it is difficult to know with any certainty Mary Hemenway's expectations or hopes for her expedition, it is clear that she was initially far more interested in Cushing's study of Zuñi folklore than in southwestern archaeology for its own sake. In any case, as she became more seriously ill with diabetes, her circle of supporters—notably, her son Augustus and William Torrey Harris—became increasingly protective of her reputation, impatient with Cushing, and anxious for “results” that could reasonably justify the considerable financial investment she had made. As pressure mounted in the early nineties, Cushing responded, sporadically, with the *Itinerary*, a complex narrative of origins, actions, and remarkable musings that could not, in the instance, possibly have satisfied Harris's demand for “scientific” results.<sup>9</sup> Hodge, too, trying to start a career in anthropology on the slim foundation of his Hemenway experience, was caught up in the changing world of expectations and institutional flux. In addition, both brothers-in-law felt keenly the suspicions of fiscal irresponsibility that threatened such deep disgrace to Victorian males.

Today, from the perspective of more than a century, the theories and themes of Cushing's *Itinerary* (migration down through the Salt River Valley, hypothetical Peruvian connections, a two-tier society of priests and laymen producing a vast irrigation network, destruction by earthquake, among others), like all scientific hypotheses, require diligent consideration, and in future volumes we will review his and others' evidence. The *Itinerary* merely opens the door onto an intellectual struggle of many dimensions: between imaginative freedom and empirical rigor; between individual style and institutional structures; and between the expectations of patrons and the flexibility of field-workers. It was nearly half a century after Cushing wrote the *Itinerary* that Emil Haury provided the close, “disciplined” analysis of the Hemenway materials that would demonstrate that Cushing was no foolish romantic;<sup>10</sup> only now, after another half-century, are we achieving a closer understanding of the conflicted institutional and intellectual world in which those collections and writings took place.

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### Abbreviations

- HFL Huntington Free Library, Bronx, New York
- CLB Frank H. Cushing Letter Books, vols. 1–9
- HC Frederick Webb Hodge Collection
- NAA National Anthropological Archives, Smithsonian Institution, Washington, D.C.
- PMA Peabody Museum Archives, Harvard University, Cambridge, Massachusetts
- SWM Southwest Museum, Los Angeles, California
- CC MS 6 Frank H. Cushing Collection, Manuscript 6
- BAE Bureau of American Ethnology
- BOE Bureau of Ethnology
- HAE Hemenway Southwest Expedition
- HC Frederick Webb Hodge Collection
- THS Tempe Historical Society, Tempe, Arizona

## Introduction to the Multivolume Work

1. Obituary of Mary Tileston Hemenway, *Boston Transcript*, 10 March 1894.
2. Fewkes's career as director of the "Second" Hemenway Expedition is the subject of Wade and McChesney, *America's Great Lost Expedition*.
3. Haury, *Excavations*.
4. Hodge to Haury, 5 October 1931, SWM HC MS 7 1.4.
5. Foreword to Haury, *Excavations*, vii–ix.
6. Handwritten notes from Hodge to Haury, 30 March 1934, x-file 94-36, H-2, PMA.
7. Ira Jacknis, "Inventory."
8. Culin to Hodge, 28 February 1921, SWM HC.
9. Judd et al., "Frederick Webb Hodge." The Southwest Museum recently completed a computerized inventory of the Hodge and Cushing collections for scholars.
10. Brandes, "Frank Hamilton Cushing"; see also *The Southwest Journals of Adolph F. Bandelier*, four volumes covering 1880–92 and edited variously by Charles H. Lange, Carroll L. Riley, and Elizabeth M. Lange.
11. Mark, "Frank Hamilton Cushing," 484; Green, ed., *Zuni and Cushing at Zuni*.
12. See also Hinsley, *Savages and Scientists* and "I Command"; Hinsley and McChesney, "Anthropology as Cultural Exchange"; McChesney, "Appropriation"; and Wilcox and Sternberg, *Additional Studies*.
13. Eustis, *Augustus Hemenway*. Cushing's personal diaries were given to Jesse Green by Anne E. Smullen, grandniece of Cushing's wife, Emily Magill Cushing (see Green, ed., *Cushing at Zuni*, 348).
14. Wilcox, Howard, and Nelson, *One Hundred Years*.
15. Wade and McChesney's exhibit catalog, *America's Great Lost Expedition*, appeared in 1980. See also Hinsley, *Savages and Scientists*, "Ethnographic Charisma," "From Shell-Heaps to Stelae," and "Wanted."
16. Wilcox and Howard, "The Contribution"; Wilcox, Howard, and Nelson, *One Hundred Years*; Wilcox, "Pueblo Grande."
17. See, e.g., Swentzell, "Levels of Truth."

## Preface to Volume 2

1. See Cushing diary, 13 May 1893, NAA.

## Part I. Introduction

### The Lost Itinerary of Frank Hamilton Cushing

1. “Notes Made during a Visit of Palowahtiwa, Waihusiwa, and Heluta at Manchester-by-the-Sea, Massachusetts, 1886,” *SWM CC MS 6 I*. Jesse Green edited and published portions of this material in *Zuni*, 409–25.

2. See Dewey, “Visit”; Goddard, “A Zuni Religious Service,” 566–70. Dewey’s account is published in full in Hinsley and Wilcox, eds., *A Hemenway Portfolio*, 551–65.

3. Comparison with language in Cushing’s field reports, daily reports, archived handwritten notes, Hodge’s personal diary, and Magill’s personal diary has confirmed the reconstructed nature of the bulk of the Itinerary.

4. “Field Notes and Journal of Explorations and Discoveries in Arizona and New Mexico during the Years 1887–’88 by Frank Hamilton Cushing, Director,” *PMA*. The typescript—presumably made by Hodge—has notations and corrections in Cushing’s handwriting.

5. “Itinerary of the Initial Work at the Ruin Cluster of Los Muertos,” *SWM CC MS 6 HAE 3.17*.

6. Cushing to Powell, 2 July 1886, *NAA*. Several years later, Cushing described the scene as including a larger element of entertainment, even whimsy: “Mrs. Hemenway came down one morning at old farm [*sic*] in the Spring of 1886, and in her characteristic way, announced to me that she thought we must have some of the Zuñi Priests visit us that Summer if Mrs. Cushing and I would go with her to Manchester instead of returning, as previously we had intended, to Shelter Island. . . . For she wished to have the Zuñis as true guests like other visitors whom she also wished to have at Casa Ramona, and that the interest of entertaining them would alone suffice even were no other result to accrue, and that as her daughter and son-in-law were not intending to spend the Summer there, as customarily, she could not, or did not wish to, unless we would go down and stay with her.” Cushing to William T. Harris, n.d. (ca. June 1891), *SWM CC MS 6 BAE 1.45*.

7. Cushing suffered from a combination of diverticulitis and a persistent tapeworm, which he finally expelled in 1890.

8. Cushing to Powell, 31 October 1885, *NAA*. Thanks to Don Fowler for this and other references in this section.

9. Eben Norton Horsford (1818–93) was a founder of the Lawrence Scientific School at Harvard. During the Civil War he made a fortune on his invention of baking powder and was appointed Rumford Professor of Science at Wellesley. He had a palatial house on Brattle Street. Horsford was deeply interested in New England archaeology, especially presumed pre-Columbian Norse landings (see Williams, *Fantastic Archaeology*, 206–10).

10. Cushing to Powell, 24 June 1885; Cushing to James C. Pilling, 1 August 1885; Cushing to Pilling, 26 September 1885; Horsford to Pilling, 28 September 1885, NAA.

11. The Cushings also lived part of the winter with Mrs. Hemenway upstairs at her home on Mt. Vernon Street in Boston before moving to Old Farm in the spring and Casa Ramona in the summer. For more detail on this period, see Hinsley and Wilcox, eds., *The Southwest in the American Imagination*, 109–10. Mrs. Hemenway's offer came sometime between the end of 1885 and the spring of 1886.

12. Mary and Augustus Hemenway had bought the farm, southwest of Boston, in 1863. See Foote, *A Memorial*, 4.

13. Editorial note to Matthews, "The Cities of the Dead," 213.

14. Ames, *A Memorial Tribute*.

15. Claflin, *Under the Old Elms*, 81–82. "Who else has done what Mrs. Hemenway has done, and to whom do we owe so much?" Claflin asked. Thanks to Ellie Reichlin for this reference.

16. Cushing to Bandelier, 12 September 1886, SWM CC MS 6.

17. Between 6 and 9 March 1894 obituaries of Mary Hemenway appeared in the *Boston Daily Advertiser*, *Boston Daily Globe*, *Boston Herald*, *Boston Journal*, *Boston Post*, and *Boston Transcript*. Charles G. Ames's *Memorial Tribute* appeared as a published pamphlet.

18. On this point, the invaluable interpretive collection of the American imagination on the Civil War remains Wilson, *Patriotic Gore*.

19. I am particularly indebted to the generally unpublished work of Lea McChesney and Susan Haskell: McChesney, "Sketch of Mary Hemenway," "Anthropology as Cultural Exchange," and "Appropriation"; Haskell, "Mary Hemenway." For recent, brief biographical accounts, see McChesney, "Hemenway, Mary"; and Keller, "Mary Porter Tileston Hemenway." Of great importance and insight are McGreevy, "Daughters of Affluence," and Woodbury and Woodbury, "Women of Vision."

20. Douglas, *Feminization*, 21.

21. Ames, *A Memorial Tribute*, 13. Cf. Dewey, *Discourses*. On Dewey's life, see his daughter Mary's dutiful volume, *Autobiography and Letters of Orville Dewey, D.D.*

22. Dewey, *The Old World*, 2:193.

23. Foote, *A Memorial*, 4.

24. The pattern of the nineteenth-century clergy/female parishioner bond is a central concern of Douglas, *Feminization*.

25. Foote, *A Memorial*, 22–23. L. Cabot Briggs, a descendant of Hemenway who presented a copy of Foote's memorial of Mary Hemenway to the Boston Athenaeum Library in 1975, jotted in the margin of this passage that "she [M.H.] was entirely devoid of artistic feeling. Her feeling was purely sentimental."

26. The wealthy Porter family had been one of the two central families involved in the Salem witch trials of 1692.

27. McChesney, "Appropriation," 5.

28. McChesney, "Anthropology as Cultural Exchange," 13–13B.

29. Wells, *The Household Arts Department*, n.p. Cf. Stone, "Mrs. Mary Hemenway." For a fine account of Hemenway's enthusiasm for women's gymnastics, see Spears, *Leading the Way*.

30. McChesney, "Appropriation," 7.

31. For insight into Hemenway's support for Armstrong and the Hampton Institute, with emphasis on her interest in African American folklore, see Baker, "Research," 44–47.

32. Adams, *The Education*, 338. Cultural historian Louis Menand has described the impact of the Civil War in similar terms: "For the generation that lived through it, the Civil War was a terrible and traumatic experience. It tore a hole in their lives. To some of them, the war seemed not just a failure of democracy, but a failure of culture, a failure of ideas" (*Metaphysical Club*, x).

33. Rotundo, *American Manhood*, 233–34.

34. On the doctrine of free labor in an open society, see Foner, *Free Soil*; on postwar developments, see Trachtenberg, *Incorporation*, chap. 3.

35. Baker, "Research," 44–47.

36. Armstrong and Ludlow, *Hampton and Its Students*, 23.

37. Jones, *The Age of Energy*.

38. Lindsey, *Indians*, 6; Peabody, *Reminiscences*, 184. See also Peabody, *Education for Life*.

39. Talbot, *Samuel Chapman Armstrong*, 131.

40. Hampton Institute, *Twenty-two Years' Work*, 76. The system of scholarship was designed to "keep up that practical, personal interest in the school." By 1873 Armstrong had secured 152 annual scholarships, chiefly through exhausting promotional trips in the Northeast (48).

41. Hemenway included in the "national memory" the prehistoric ruin of Casa Grande in Arizona, which she also acted to preserve in 1889. For her central role in preserving the Casa Grande, see Hinsley and Wilcox, "Arizona's First Sacred Site."

42. "But the difficulty is that in these later times . . . the heroic and romantic elements . . . have been all too tragically obscure, belonged to smothered, unwritten, almost unconscious private history" (James, *The American Scene*, 290).

43. This sensibility of destruction and the aesthetics of nostalgia to which it frequently gave rise are analyzed with reference to the American Southwest in "Boston Meets the Southwest," the introductory essay in the first volume of this series, *The*



*Southwest in the American Imagination*, 3–33. For an important longer-range perspective on American public memory and monuments, see Bodnar, *Remaking America*. As Bodnar sees it, the last quarter of the nineteenth century was a time of class struggle over “unregulated memory” between the growing business class and “workers, farmers, immigrants, and other ordinary people,” in which celebrations of progress, technology, and patriotism vied for primacy. “Cultural leaders, especially entrepreneurs, intellectuals, and professionals, in the North and South intervened in the discussion over memory in ways that celebrated the role of elites who came before them and ideals such as material progress that they cherished” (29). Within this framework Mary Hemenway appears as a celebrant of democratic inclusiveness but not necessarily of industrial progress.

44. On the performative aspects during this visit, see Hinsley, “Zunis and Brahmins.”

45. The literature on Cushing at Zuñi is now quite large, but on these points in particular, see Green’s indispensable volume, *Cushing at Zuni*, and Hinsley, “Zunis and Brahmins.”

46. Cushing to Hemenway, 11 August 1883, SWM CC MS 6 HAE 1.28. The expression of friendship from Palowahtiwa, Naiutchi, Laiiuwahtsailunkia, and Kiasiwe, written by Cushing, came in response to their receipt of Christmas cards (“her good decorations”) from Mrs. Hemenway. Thanks to Lea McChesney for this reference.

47. Foote, *A Memorial*, 29–30. On the cultural impact of African American singing groups in post-Civil War America, see Ward’s recent study of the Fisk University Jubilee Singers, *Dark Midnight*, and the WGBH-produced PBS American Experience documentary *Sacrifice and Glory* (May 2000), written as well by Ward and based on *Dark Midnight*. The Fisk group took the Hampton students as their model.

48. Dewey, “Visit.”

49. Brandes offers the account of this ruse, from which Hemenway “obtained a large typescript, which Cushing was never to see” (“Frank Hamilton Cushing,” 128). We have been unable to substantiate Brandes’s account, which originated in a brief, anonymous article in the *Saturday Evening Post* in 1909.

50. Cushing to Sylvester Baxter, 2–30 August 1887, HFL CLB 7:169–212.

51. For critical analyses of this tradition, see Pratt, *Imperial Eyes*, and Stafford, *Voyage into Substance*. See also the special issue of *Critical Inquiry* 26, entitled *Geopoetics: Space, Place and Landscape*.

52. Pratt, *Imperial Eyes*, 58–67. For analysis of the centrality of Humboldt in this tradition, see Pratt’s chapter “Alexander von Humboldt and the Reinvention of America,” 111–43.

53. Bredahl, “The Perceiver,” 316.

54. See Fowler and Wilcox, “From Thomas Jefferson,” 204–9. For additional discussion of the hemispheric orientation, see Hinsley, “In Search,” 106–8.
55. Abert, *Report and Map*; Emory, *Notes*.
56. Sitgreaves, *Report*; Simpson, *Journal*; Whipple, “Report of Explorations”; and Bartlett, *Personal Narrative*.
57. Revel, “Knowledge,” 134–37.
58. Starr, *Americans and Inventing the Dream*. See also Wilder and Babcock, eds., *Inventing the Southwest*; McLuhan, *Dream Tracks*.
59. McLuhan, *Dream Tracks*, 18.
60. Cushing to Hemenway, 12 November 1886, SWM CC MS 6 HAE 1.28. Cushing held open the possibility, even the likelihood, of extending the first year to two or three.
61. *Ibid.*, emphasis added.
62. Cushing, “Field Notes and Journal,” this volume.
63. Cushing, “Itinerary of the Initial Work,” entry for 3 March 1887, this volume.
64. *Ibid.*, entry for 14 March 1887, this volume.
65. Charles Augustus Garlick (b. 1832), a wagon maker, was married to John Wesley Powell’s younger sister Eliza (“Lida”) and employed in Powell’s Geological Survey. He was “on loan” to the Hemenway Expedition during this period. See Worster, *A River Running West*, 220, 548.
66. Sylvester Baxter, “Archaeological Camping in Arizona, Part 3,” reprinted in Hinsley and Wilcox, eds., *The Southwest in the American Imagination*, 169.
67. Herman F. C. ten Kate diary, 31 March 1906, from ten Kate, *Over Land en Zee*.
68. The Hemenway Expedition board in early 1890 consisted of Mary Hemenway, her son Augustus, William T. Harris, Jesse Fewkes, and Mary Dewey.
69. Dewey to Emily Cushing, 15 April 1890, and Dewey to Frank Cushing, 20 April 1890, SWM CC MS 6 BAE 1.23. For the Dewey account of the summer and fall of 1886 at Casa Ramona, see Hinsley and Wilcox, eds., *A Hemenway Portfolio*, 551–63. It is likely that Dewey’s proposed reminiscences inspired Cushing’s own reflections on the origins of the expedition, which became in effect the first part of the Itinerary.
70. Cushing, “The Germ.”
71. Cushing to his brother Harding (“Hard”) Cushing, 22 June 1890, SWM CC MS 6 BOE 1.14.
72. Cushing to Baxter, 17 June 1891, HFL CLB 7:401–11; SWM CC MS 6 BAE 1.3.
73. Brandes, “Frank Hamilton Cushing,” 159.
74. Cushing to [Forum editor], 20 August 1890 (unsigned draft), SWM CC MS 6 HAE 1.19.
75. Cushing to Dearest Mother, 12 February 1891, HFL CLB 7:134–35.

76. Dr. William Torrey Harris (1835–1909), philosopher and U.S. commissioner of education from 1889 to 1906, was the leader of the St. Louis Hegelians and the superintendent of schools in St. Louis from 1868 to 1880. He was also the editor of the *Journal of Speculative Philosophy*, which provided a forum for the philosophical début of Charles Pierce, Josiah Royce, William James, and John Dewey. In 1880 he helped to found the Concord (Massachusetts) School of Philosophy and through these activities came to the attention of Mary Hemenway. He became her trusted advisor on issues of educational reform and was appointed chairman of the Hemenway Expedition board. “Hardly any American philosopher was more widely acclaimed in his own time” (*Dictionary of American Biography*, 8:330).

77. Cushing to Harris, 11 February 1891, SWM CC MS 6 HAE 1.25.

78. Cushing to Harris, 15 January 1891, SWM CC MS 6 HAE 1.25.

79. See, e.g., Hodge to Cushing, 18 January 1891, HFL HC.

80. There is a striking contrast between Cushing’s inability to compose his Itinerary/journal and the remarkably detailed pages of information that he provided to Hodge for the latter’s publications. Equally striking, in retrospect, is Cushing’s generosity in promoting Hodge’s career. See, e.g., Hodge to Cushing, 25 May 1891, HFL HC; Cushing to Hodge, 29 May 1891, HFL CLB 7:192–216; and Hodge to Cushing, 1 June 1891, HFL HC.

81. Cushing to Hodge, 5 June 1891, HFL CLB 7:248–50.

82. Harris to Cushing, 28 May 1891, SWM CC MS 6 HAE 1.25.

83. Harris to Cushing, 6 June 1891, SWM CC MS 6 BAE 1.42.

84. Cushing to Baxter, 6 June 1891, SWM CC MS 6 BOE 1.6.

85. *Ibid.*

86. Cushing to Harris, 30 May 1891, SWM CC MS 6 BAE 1.42.

87. *Ibid.*

88. Harris to Cushing, 17 June 1891, SWM CC MS 6 HAE 1.25.

89. Cushing to Baxter, 7 June 1891, SWM CC MS 6 BOE 1.6; Cushing to Baxter, 20 July 1891, HFL CLB 7:392–96 and SWM CC MS 6 (no. 98).

90. Cushing to Harris, 12 June 1891, SWM CC MS 6 BAE 1.66; Cushing to Harris, 26 June 1891, SWM CC MS 6 BAE 1.45.

91. Mark, “Frank Hamilton Cushing,” 485. See also Kroeber, “Frank Hamilton Cushing,” 657; and the brief discussion in Green, ed., *Zuni*, 163–65.

92. Eusebio Joseph Molera was a Catalan civil engineer who immigrated to California and married into the wealthy Cooper family, inheriting their properties in Monterey, El Sur, and San Francisco. An officer in the California Academy of Sciences who later helped build its magnificent pre-1906 building, he was one of the well-connected San Francisco elite whom Cushing met in November 1887; he was to remain a life-long friend.

93. Cushing to “My Dear Friend” (E. J. Molera), 27 August 1891, SWM CC MS 6 (no. 333).

94. W. T. Harris diary, 28–30 August 1891, W. T. Harris Papers, Massachusetts Historical Society.

95. Harris to Cushing, 26 October 1891, SWM CC MS 6 HAE 1.25; Cushing to Harris, 3 November 1891, HFL CLB 7:513–15.

96. Frank H. Cushing, “Commentary of a Zuni Familiar,” in Proctor, *Song*, 27–49; for discussion of the Proctor project, see Hinsley, “Life on the Margins,” 380–81. The “Commentary,” published in 1893, turned out to be Cushing’s last effort for the Hemenway Expedition—and one of his last publications on the American Southwest.

97. He actually resumed a salaried Bureau position on 1 February 1892.

98. Cushing to Coann, 3 January 1892, HFL CLB 7:565–70.

99. Cushing diary, 2 January 1892, NAA.

100. On Cushing’s reliance on father/mother figures for institutional support in his career, see Hinsley, *The Smithsonian*, 205–6.

101. Cushing diary, 2 January 1892, NAA.

102. Cushing diary, 4 January 1892, NAA.

103. Cushing diary, 7 and 9 January 1892, NAA. Cushing arranged to pay Hodge \$100 per month for four to five hours of after-hours daily dictation, the money to be paid by Hemenway through Harris.

104. Cushing diary, 12 and 17 January 1892, NAA. These would have been the passages describing the expedition’s arrival outside Tempe on Sunday, 13 February 1887.

105. Cushing to Coann, 30 January 1892, HFL CLB 7:565–70.

106. Cushing diary, 27 January 1892, NAA.

107. Curtin (1835–1906) worked off and on for the Bureau in the 1880s and 1890s. See Hinsley, *The Smithsonian*, 214–15.

108. This installment (presented in this volume as the third piece of the Itinerary) ends on 2 March 1887.

109. Cushing to Baxter, 20 February 1892, HFL CLB 7:634–36.

110. Cushing diary, 17 and 18 August 1892, NAA. Harris paid Hodge \$129 for the previous month’s work.

111. Harris to Cushing, 5 September 1892, SWM CC MS 6 HAE 1.25. Harris took the opportunity, however, to remind Cushing of the larger unfinished vision: “I hope that you will feel that it is all-important for you to go on with your three tasks of writing (1) The Journal of S. W. Exped. (2) the Original & translation of the Folklore tales (3) the journal of your stay at Zuñi (16 chapters or more to complete your record). No one else can do these three things and no one can do anything of greater interest to archaeology, just now.” He also wrote a personal check to Cushing for \$200.

112. Cushing to Harris, 9 September 1892, HFL CLB MS 6 BAE I.46. Harris's money helped, too: it had, Cushing said, "cleared away in a night time the prejudices gathered of many months and moods and counsels."

113. Baxter to Cushing, 6 October 1892, SWM CC MS 6 BOE I.6.

114. Baxter to Cushing, 22 November 1892, SWM CC MS 6 BOE I.6.

115. Cushing to Edward S. Morse, 6 March 1893, Peabody-Salem Museum, Edward S. Morse Papers, 352–53. For context on the gulf between Cushing's "charisma" and Fewkes's "routine," see Hinsley, "Ethnographic Charisma."

116. Cushing diary, 31 December 1892, NAA.

117. Cushing diary, 15 and 17 February 1893, NAA.

118. Cushing diary, 19 and 20 February 1893, NAA.

119. See, e.g., Cushing diary, 25 February and 3, 5, and 12 March 1893, NAA.

120. Cushing diary, 18 March 1893, NAA. Hodge's diaries are now in the SWM HC MS 7 2.1. Cushing's "Daily Notes of the Expedition," which run from 13 November 1886 to 18 December 1887, are in both Cushing's and Hodge's handwriting. The entry for 29 March 1887 is Hodge's; he writes: "H. [Hodge] finished work on accs [accounts] and began an itinerary of the Expedition." The next day (30 March) Hodge continues: "H. engaged on itinerary part of the day." Clearly, it was at this point that Cushing and Hodge had reached some understanding about beginning a narrative of the expedition (Cushing, "Notes").

121. Margaret Magill's diary notes, which run from 6 February to 17 August 1887, are in the HFL.

122. There is no evidence that he ever submitted the final portion to Harris, Hemenway, or the rest of the expedition board.

## Part II. Envisioning an Expedition

### Preliminary Report, or Itinerary

1. Courtesy of the Southwest Museum, Los Angeles, California, SWM CC MS 6 HAE 3.23; transcribed by David R. Wilcox,

2. Cushing's three Zuñi friends, Palowahtiwa, Waihusiwa, and Heluta, arrived, after a twenty-day journey by train from Zuñi Pueblo, on 13 August 1886 at Mrs. Hemenway's summer compound in Manchester-by-the-Sea on the Massachusetts North Shore. For further information and photographs, see Hinsley and Wilcox, eds., *A Hemenway Portfolio*, 551–65.

The Hemenway compound was on Pickworth Point, "a small jut of pasture-crowned ledge," some of the last prime seacoast on the North Shore. It was bought by Augustus Hemenway in 1872 (Garland, *Boston's North Shore*, 275). Here, above

“Bellyache Cove,” the Hemenways built their summer home, Meadow Beach, which Augustus enjoyed for only three years before his death in 1876. In 1883 Mary Hemenway commissioned architect William Ralph Emerson, a founding member of the Boston Society of Architects, to build a second residence for the use of her daughter and son-in-law, Edith and W.E.C. Eustis. The two homes were a few hundred yards apart, on opposite sides of the cove. Hemenway named the second home Casa Ramona after the popular novel of 1885 by Helen Hunt Jackson (who had recently died). Writing in *Century Magazine* in 1886, architectural critic Mariana van Rensselaer commented that Casa Ramona “seems almost as much a part of nature’s first intentions as do the rocks and trees themselves” (cited in Lewis, *American Country Houses*, p. 49). The house was also featured in the *American Architect and Building News* on 27 September 1884 and is thoroughly discussed in Scully Jr., *The Shingle Style*, 109–110.

3. Martha LeBaron Goddard (1829–88), a native of Plymouth, Massachusetts, and a major social figure in Gilded Age Boston, was a close friend of Mary Hemenway. Impressed by Helen Hunt Jackson’s *A Century of Dishonor* (1881) and *Ramona* (1884), in the last years of her life Goddard engaged in issues of Indian welfare and rights. She helped to sponsor Cushing’s visit with the Zuñi chiefs to Boston in 1882 and served on the Hemenway Expedition board from its formation in October 1886 until her death two years later. Her letter describing “A Zuni Religious Service at Manchester-by-the-Sea” is printed in Hinsley and Wilcox, eds., *A Hemenway Portfolio*, 566–70. See also Brown, ed., *Letters*.

4. Spencer Fullerton Baird (1823–87) became assistant secretary of the Smithsonian Institution in 1850 and ultimately director of its National Museum as well; at Joseph Henry’s death in 1877 he became the second secretary of the Smithsonian and placed the institution on a path radically different from Henry’s: away from support of individual scientists in different disciplines and toward natural history and museum collections. Cushing’s first boss at the Smithsonian was Baird, in 1876, and it was under Baird’s direction (not Henry’s or Powell’s) that Cushing first came to the Southwest on a collecting expedition in 1879. See Rothenberg, ed., *The Papers of Joseph Henry*, vols. 7 and 8; Rivinus and Youssef, *Spencer Baird*.

Maj. John Wesley Powell (1834–1902) was the founder of the Bureau of Ethnology and Cushing’s mentor and patron. Cushing’s approach to archaeology best symbolized Powell’s conception of it as a part of ethnology (see Powell, “Discussion of Brinton”).

5. The exceedingly long and detailed letter to which Cushing refers was written over several months, from 18 February to at least 13 April 1880, from Zuñi Pueblo to both Powell and Baird, under whose collecting expedition Cushing was serving at the time. Jesse Green, who published the letter in *Cushing at Zuni* (94–104), con-

cluded that the letter never reached Powell. Copies do not exist at the Smithsonian, and Green published one of two copies that Cushing kept personally.

Cushing considered the 1880 letter—which he intended to append to this introduction to the Itinerary—to be the programmatic statement of his life’s work at Zuñi and the rationale for his pursuit of the Zuñi “Ancient Ones” to the deserts of central Arizona. In an unfinished letter to Mrs. Hemenway from San Francisco in December 1887 Cushing reviewed for her the meaning of that earlier letter and his consistent intellectual trajectory through “all these apparently disconnected years” since 1880: “I went to Zuñi when a boy, with the distinct understanding that I was entering the portals there, not of a tribal house, but of a great temple of science, opening, so to speak, toward the North, extending South; whose many halls might be looked into and reported on as possessed of treasures and records, but whose jewels and archives could never be handled or recovered by any save those who would enter the true portals as I was entering them. More or less vague, yet fully, I did this before my Directors in the first letters on the subject I wrote them. I did not state it less vaguely to them because I did not wish them to think me presumptuous. Even as it was they thought me more or less so, evidently, for they did not support my plans save as these related to Zuñi alone; but that was quite sufficient for my purposes at the time. When it became desirable for me to test my Zuñi work archaeologically, and when I applied for aid so as to test it, they gave me authority to make some of the investigations I wished to; but they gave me none of the facilities for which I asked; therefore, except to a limited extent—except to the extent of the strength of my own hands and feet—I could not confirm, by archaeologic research, my ethnologic (and especially my mythologic) investigations” (Cushing to Hemenway, 13 December 1887 [sent after 11 January 1888], HFL CLB 3:429–39).

The lecture to which Cushing refers, “The Discovery of Zuni, or the Ancient Province of Cibola and the Seven Cities,” he delivered to the American Geographical Society on 13 January 1885. Jesse Green reprinted major excerpts as appendix D (335–39) of *Cushing at Zuni*. It is the most complete formal statement of Cushing’s theory that the Spanish conquistadors’ “cities” of Cibola were in fact Zuñi towns. Cushing considered the reading of these two documents to Hemenway and Goddard as the intellectual stimulus to the Hemenway Expedition.

#### Notes Made during a Visit

1. Courtesy of the Southwest Museum, Los Angeles, California, SWM CC MS 6 1; transcribed from a copy provided by the Southwest Museum to Lea McChesney. For another, abbreviated version of this account of the visit to Manchester by the Zuñis, see Green, ed., *Zuni*, 409–25.

Frank Cushing had two brothers living in the Albion, New York, area: Enos and

Clark Harding (“Hard”) Cushing. Enos, a dentist, traveled with the three Zuñi men to Manchester.

2. Palowahtiwa, also known as Patricio Pino, was an accomplished silversmith and governor of Zuñi Pueblo. Cushing had lived in the Pino household through most of his time at Zuni from 1879 to 1884. See Green, ed., *Cushing at Zuni*; Walker, “Palowahtiwa,” 665–77, and “Photographic Documentation.” For photographs and paintings of the visiting Zunis, see Hinsley and Wilcox, eds., *A Hemenway Portfolio*. See, finally, Ladd’s clarification of Palowahtiwa’s clan identity and his relationship as Cushing’s “sponsor” in “Cushing among the Zuñi.”

3. Thomas Cushing (1821–98) was a medical-doctor-turned-farmer with a homestead southeast of Barre Center, south of Albion. He was locally known as an eccentric who lived one winter in a threshing machine just to show that it could be done. According to a biographical account of 1894, “liberality of thought, loyalty to his convictions, and fearlessness in the expression of his opinions, are his distinguishing characteristics” (Signor, *Landmarks*, 141). The father’s behavior with the Zuñi visitors on this occasion seems to confirm his reputation as a local character.

Palowahtiwa’s translated phrase, “elder brother, younger than the other,” refers to Cushing’s second oldest brother, Enos, who accompanied his father, Thomas, in meeting the Indians. (The eldest Cushing son was Harding.)

4. Tenatsali, loosely translated by Cushing as “Medicine Flower,” was Cushing’s Zuñi name, apparently (according to Ladd) given to him as part of an ear-piercing ceremony. Ladd also argued that “contrary to Cushing’s notes, this is *not* datura, or jimson weed, which in Zuñi is called *an/nek la/y kya*, not *tenatsali*” (“Cushing among the Zuñi,” 31).

5. The reference is to Palowahtiwa’s previous trip to Boston in 1882, during which he and his companions gathered saltwater on Deer Island in Boston Harbor. See Hinsley, “Zunis and Brahmins.”

6. Edward S. Morse was famous for being able to write or draw on a board during lectures with both hands at the same time. For a brief biography and reference, see Hinsley and Wilcox, eds., *The Southwest in the American Imagination*, 212.

7. Cushing is not consistent in spellings and accent marks in the various sections of the Itinerary. We have preserved the inconsistencies except where they might cause confusion with meaning or identity.

8. We have not located this account by Goddard. Henry Sandham’s oil painting *Zuni Indians at Manchester* (Peabody Museum, Harvard University) depicts the scene in the orchard by the ocean.

9. The Lady Franklin Bay Expedition was led by Adolphus Washington Greely in the early 1880s to the Arctic Circle. It ended in disaster, starvation, mutiny, suicide, and cannibalism. For more information, see Guttridge, *Ghosts of Cape Sabine*.



10. As is often the case with Cushing's accounts of Zuñi conversations, it is impossible to say how much of the "philosophy" presented here is actually Cushing's and how much originated with his Zuñi friends. Here Cushing presents—in a combination of Tocqueville and Montaigne—a mild critique, by supposedly savage naïfs, of American wanderlust, ambition, and imperial pretensions.

11. Cushing was serious about the "better understanding" of Zuñis and, indeed, of all Native Americans. For instance, a few weeks later he wrote to Adolph Bandelier from Manchester that although the expedition was to be strictly scientific, he anticipated good things to come of his Zuñi fieldwork and the Hemenway archaeological enterprise: "I believe that the results of the exhaustive monographing of this one tribe of Indians, with comparative studies suggested thereby, will lead to a more complete understanding of North American Indians as a whole than has ever yet been reached, and thereby show in what way most wisely the condition of our Indians may be ameliorated and their peculiar abilities turned to account in the commonwealth of heterogeneous ethnicities making up the population of the United States of America. In such way, and such way only, is the immediate work I am undertaking to be regarded as philanthropic" (Cushing to Bandelier, 30 September 1886, swm cc ms 6 HAE 1.3).

12. We have not identified the minister, a Mr. Tenny or Tenney. The "religious exercise" of 19 September is the same as described by Martha Goddard (in Hinsley and Wilcox, eds., *A Hemenway Portfolio*, 566–70).

13. Jesse Green has explained the reference to "Poshaiank'ya" in part as follows: "*Pó-shai-an-k'ia*, the God (Father) of the Medicine societies or sacred esoteric orders, of which there are twelve in Zuñi, and others among the different pueblo tribes. He is supposed to have appeared in human form, poorly clad, and therefore reviled by men; to have taught the ancestors of the Zuñi, Taos, Oraibi, and Coconino Indians their agricultural and other arts, their systems of worship by means of plumed and painted prayer-sticks; to have organized their medicine societies; and then to have disappeared toward his home . . . and to have vanished beneath the world, where he is said to have departed for the home of the Sun" (*Cushing at Zuni*, 425).

14. Contemporary spelling is "Hanlibinkya," a sandstone canyon west of Zuñi Pueblo where, according to Zuñi origin narratives, the clans were named; Zuñi petroglyph clan symbols are still visible there today. See Ferguson and Hart, *A Zuni Atlas*, 21, 23.

15. Heshotyalla (the contemporary spelling is "Heshoda Yalla") is located a few miles directly north of Zuñi Pueblo. According to Zuñi oral narratives, in their wandering search for the "middle place," the Zuñi ancestors stopped at Heshoda Yalla, which was, however, already occupied by another people. In a fierce battle the Zuñis defeated these people and incorporated some of them into the tribe. They then pro-

ceeded on their travels until settling in the middle place (Halona: Itiwana, or Zuñi Pueblo). See Ferguson and Hart, *A Zuni Atlas*, 23.

16. It is easy to read in Palowahtiwa's words, as rendered by Cushing, the generational strains within Zuñi Pueblo that would within a decade lead to serious social and political disintegration—note, especially, the challenges to the words and practices of the aging Zuñi priesthood. Palowahtiwa's sensitivity to Cushing's failure to maintain appropriate prayer practice may likewise be ascribed to this condition.

17. Cushing footnote: "This place, as nearly as I have been able to ascertain, is situated far north and somewhat west of the meridian of Taos, the northernmost of the Rio Grande pueblos. The traditions of some of the Indian tribes of the southwest place it in that marvellous center of ancient civilization or culture so ably explored by Mr. W. H. Holmes and Mr. W. H. Jackson, namely, in the basins and tributary valleys of the Rios San Juan and Mancos. I incline to the opinion that it is situated farther east than this, in one of the still unexplored centers of ancient population, as evidenced by almost innumerable ruins, namely, Southern Colorado, these ruins being characterized by the constant recurrence among them of this circular form of sacredotal [*sic*] architecture." That is, what are today called circular great kivas, many of which pertain to the Chacoan culture of the 1000s and 1100s.

18. Cushing is referring to the home of Eben Horsford on Shelter Island in Long Island Sound, where he and Emily had spent the autumn of 1885.

19. In a fragmentary (nine-page) "autobiography" in his papers at the Southwest Museum Cushing maintained that he had been born prematurely and lived on a pillow for the first two years of his life. See Brandes, "Frank Hamilton Cushing," 2–3.

20. That is, Cushing's "sister" by virtue of her marriage to Palowahtiwa, Cushing's adoptive brother.

21. "Black Mustache" refers to the trader Douglas D. Graham, who had come to Zuñi Pueblo in 1879. Over twenty years he served as schoolteacher, federal agent, and farmer. See note 8, part III, below.

## Part III. Surveying the Territory

### Field Notes and Journal

1. "Field Notes and Journal of Explorations and Discoveries in Arizona and New Mexico during the Years 1887–'88 by Frank Hamilton Cushing, Director," Hemenway Southwestern Expedition Records (46-73), box 3.1, Peabody Museum Archives. This manuscript is in two parts, and each is corrected in Cushing's hand, creating the text we follow.

2. Cushing footnote: "Congrès International des Américanistes. Compte-Rendu

de la septième session, Berlin, 1888. Berlin: 1890. 'Preliminary Notes on the Origin, Working Hypothesis and Primary Researches of the Hemenway Southwestern Archaeological Expedition,' by Frank Hamilton Cushing, p. 151. 'On an Anatomical Characteristic of the Hyoid Bone of Pre-Columbian Pueblo Indians of Arizona, U.S.A.,' by J. L. Wortman and H. ten Kate, *ibid.*, [p.] 263. 'The Historical Archives of the Hemenway Southwestern Archaeological Expedition,' by Adolf F. Bandelier, *ibid.*, p. 450."

3. Cushing footnote: "[Baxter,] 'The Old New World.'"

4. We have not been able to identify further Arthur Watts of the United States Geological Survey.

5. Capt. William Malcolm Waterbury, of the 13th Infantry, was born in 1841 (Powell, *Powell's Records*). He retired in 1895 with the rank of major (Heitman, *Historical Register*, 1:1007, cited in Lange and Riley, eds., *The Southwest Journals of Adolph F. Bandelier, 1883–1884*, 382).

6. Cushing's account of his change of plans in early December 1886 due to severe winter weather and illness may be true, but other evidence indicates that he had originally intended to work during the winter months in the southern, Salt-Gila River region and move to the Zuñi region in summer. It is more likely that the early winter snows of New Mexico merely confirmed his earlier inclination, as indicated in his original plan of operations submitted to Mrs. Hemenway on 12 November 1886, swm CC MS 6 HAE I.28.

7. On the death of Pedro Pino, Palowahtiwa's father, and the decline of the Priesthood of the Bow, see Pandey, "Factionalism" and "Anthropologists at Zuni."

8. Douglas D. Graham was in Zuñi in 1879 when Cushing arrived; he operated a store there from March 1881 and was the Zuñi postmaster. He sold out in 1898 and soon became the first superintendent at Black Rock Agency (McNitt, *The Indian Traders*, 240; Lange, Riley, and Lange, eds., *The Southwest Journals of Adolph F. Bandelier, 1889–1892*, 425; Ladd, "Zuni Social and Political Organization," 477).

9. Cushing's habit of rendering Zuñi rhetoric into archaic English in order to emphasize the supposedly "biblical" or religious nature of their thoughts and conversation is especially noticeable in this paragraph. For further discussion of this aspect, see Hinsley, "Zunis and Brahmins," 198–202.

10. For general information about the cultural geography of the Zuñi area, see Ferguson and Hart, *A Zuni Atlas*.

11. Willard Metcalf, the young Boston artist who was Cushing's close friend, provided a romantic night view of Cushing's "bivouac in the pines" for Cushing's 1882 *Century Magazine* series, "My Adventures in Zuñi." The sketch is reproduced in Hinsley and Wilcox, eds., *The Southwest in the American Imagination*, 30.

12. Cushing's conviction that Indian narratives (and thus his own ethnographic knowledge) could serve as reliable guides to the deeper past of the Southwest was central to the logic of his expedition to the Salt-Gila Valley.

13. The Nutria River Valley, through which Cushing habitually approached Zuñi from Fort Wingate, lies northeast of Zuñi Pueblo.

14. Lt. Benjamin Hidden Gilman, 13th Infantry, was quartermaster at Fort Wingate from 1 September 1886 to 15 November 1889; he died in 1898 (Heitman, *Historical Register*, 1:107, 458).

15. The contemporary spelling of Cushing's Na-ta-ta-kwin is "Nadatdekwi:wa," a ritual deer-hunting area. See Ferguson and Hart, *A Zuni Atlas*.

16. Cushing's syntax becomes confused here, but his meaning is clear: composing these passages in the early 1890s for Harris and Hemenway, he retrospectively includes Harris in the process of archaeological discovery as an imaginative companion. And, indeed, the Puerco of the West does contain many large Chacoan great-house sites and later pueblos (see Wilcox, "A Perigrine View"; Adler, ed., *The Prehistoric Puebloan World*, 241–54).

17. The sketch of the Flagstaff animal vessel has not been found.

18. Prescott Junction was located immediately southeast of what is now Seligman, Arizona (Jack Smith, personal communication).

19. Navajo Springs was where the first territorial governor of Arizona, John N. Goodwin, was sworn in on 29 December 1864 (Granger, *Arizona Place Names*, 17). A Chacoan great-house lies north of the spring on the south side of the Puerco of the West, southeast of present Navajo Springs along Interstate 40.

20. Zuñi origin accounts agree that the ancestors came originally from the Grand Canyon/San Francisco Peaks along the Little Colorado River eastward, stopping at thirty or more sacred locations in their wandering search for the Middle Place. See Ferguson and Hart, *A Zuni Atlas*, 21.

21. The "jasper forests of Arizona" are now Petrified Forest National Monument.

22. Prescott Junction first appeared as a regular billing station on 12 July 1886, four days before work began on the Prescott and Arizona Central Railroad (Sayre, *The Santa Fe, Prescott, Phoenix Railway*, 6). This photograph from the Sharlot Hall Museum, Prescott, has the name "Latchford" written on it in pencil. A W. T. Latchford, who died in January 1899, first went to Seligman at that time and perhaps once owned this photograph (Sharlot Hall Museum Obituary Book, 255).

23. Officially, it was completed on 31 December 1886 (Sayre, *The Santa Fe, Prescott, Phoenix Railway*, 6).

24. A round-trip (Prescott to Prescott Junction and back) fare at that time was \$5.85 per person. By 1893 this seventy-two-mile railroad was bankrupt, and the tracks were

taken up three years later (Spude, “A Shoestring Railroad,” 243). See also Sayre, *The Santa Fe, Prescott, Phoenix Railway*; Railroads—Prescott and Arizona Central File, Sharlot Hall Museum.

25. The bill has since been lost.

26. See Cushing, “The Nation of Willows.” Cushing was in Prescott from 20 July to 29 August 1881 (Green, ed., *Zuni*, 174–78).

27. According to *Wilhelm’s Military Dictionary and Gazetteer*, “The Sibley tent (invented by Maj. Sibley, 2nd Dragoons) is conical, light, easily pitched, erected on a tripod holding a single pole, and will comfortably accommodate 12 soldiers with their accoutrements. A fire can be made in the center of this tent, and all soldiers sleep with their feet to the fire” (578).

28. Since they made a train connection near this “Sweetwater,” it seems likely that this was the place known as Clearwater, after the family of David Clearwaters who resided there in 1887 (Granger, *Arizona’s Names*, 157; Territory of Arizona, Map, 1887, Sharlot Hall Museum, Prescott, Arizona). It was northwest of the Del Rio area of today (Sayre, *The Santa Fe, Prescott, Phoenix Railway*, 12).

29. Hodge became proud of his Zuñi adoptive name, Te-lu-li, and often recounted the story of receiving it. In his expedition diary of 13 January 1887, Hodge recorded: “They [the Zuñis] call me by my nickname (which I received at Zuñi): Te-lu-li, and I am beginning to get used to it.”

30. Jack Aitkin, the railroad’s agent and telegraph operator, later recalled that if the railroad’s two engines, the seventeen-ton Hassayampa and the twenty-eight-ton Tittle, “jumped the track once, they did so 50 times” (*Prescott Courier*, 15 June 1935, in Railroads—Prescott and Arizona Central File, Sharlot Hall Museum).

31. Joseph Dougherty (1855–1937) owned the O.K. Store and Feed Yard on Gurley Street across from the square. In 1889, when the state capital moved from Prescott to Phoenix, Dougherty bought the old capitol, later hiring Sharlot Hall as a caretaker; in 1917, when he moved to California for his health, he sold it back to the state of Arizona (Biographical Files, Sharlot Hall Museum).

Hodge had a more colorful account of the arrival at Prescott’s O.K. Corral: “Drove our teams to the ‘OK’ Yard and camped ourselves in a sort of ‘teamster’s rest’ in a corner of the yard. The place is not so very inviting, as the sky peers in through the roof and walls and the place is very dirty. But we set to work and soon have it cleaned up and cook a supper in the open grate. At seven o’clock we ‘turn in,’ with six others in this filthy little hole and are all so sound asleep that we think little of our surroundings. One of the hostlers here asked me, just after I had driven into the yard, if we were ‘a circus,’ and also where we were ‘going to perform!’” (Hodge diary, 26 January 1887).

32. See Cushing, “The Nation of Willows.”
33. No such figures were found.
34. Cushing note: “See, for further indication of this, pp. [blank] and Fig. [blank] of my paper on ‘Pueblo Pottery as Illustrative of Zuñi Culture Growth,’ Ann. Rep. Bureau of Ethnology, 1882–83.” For a current discussion of fortified sites in the greater Prescott area, see Wilcox, Robertson Jr., and Wood, “Antecedents to Perry Mesa.”
35. Regrettably, this sketch has not been located.
36. Lt. Edgar B. Robertson, 9th Infantry, was born in 1852 and retired in 1916. He was stationed as quartermaster at Whipple Barracks, Arizona, from 26 July 1886 to 9 August 1887.
37. James Burgess; see HFL CLB I:181.
38. See Rozum, “Buckboards and Stagecoaches.”
39. The Agua Fria stage station, at 4,556 feet above sea level, was first established in 1872; in 1898 the name was changed to Dewey (Granger, *Arizona Place Names*, 331, 342).
40. This drawing has not been located in any of the repositories with Hemenway collections.
41. Today called Black Canyon, this point marks the northern edge of the Sonoran Desert, whose bahadas are characterized by saguaro cactus (see Dunbier, *The Sonoran Desert*; Brown and Lowe, *Biotic Communities*).
42. The Bumble Bee stage station, at 2,509 feet elevation, was purchased by a Mrs. W. W. Snyder from a man named Bobs (*Star*, 29 July 1882, p. 4, col. 4; Granger, *Arizona Place Names*, 336); on 17 February 1887 the *Phoenix Herald* (p. 3, col. 1) reported that it was moved to Valencia gulch five miles south, where it was the breakfast station going north and the supper one coming south.
43. Charles Mullen Sr. first built the ranch in 1875, selling to Charles Eylar a few years later; after his death in 1886, the Alkire Land & Cattle Company bought the rights. The ranch buildings lay on the east bank of New River southwest of Table Mountain, 3.6 miles north of the Interstate 17 bridge just south of the New River exit; three palms, a tamarisk, a eucalyptus tree, and a large lilac bush still mark the former location of the adobe ranch house on property that now belongs to the New River Nature Reserve (George Alkire, personal communication, 1998; personal observation). A large pool of water was present in the New River just below the ranch house, and cattails are still present there today (Frank Alkire, “Memo-Notes on the Little Lady of the [Triangle Bar],” Arizona Historical Society).
44. Franklin Tomlin Alkire (1865–1962) was born in St. Louis, Missouri, arriving in Phoenix in January 1886. He purchased the Eylar (later Triangle Bar) Ranch in 1887, having moved down from Pleasant Valley to avoid the Graham-Tewksbury

feud. He married in 1889, bringing his wife to live at the Triangle Bar, which was one of the largest ranches in the territory, being fifty-five miles long by twenty-five miles wide; it extended from Bumblebee to the Arizona Canal and from Cave Creek to Frog Tanks on the Agua Fria (notes by Frank Alkire, Phoenix Museum of History). In 1895 Frank and his brother George moved to Phoenix, where Frank became prominently involved in business and was one of the first governors of the Salt River Valley Water Users Association. He lived to age ninety-six (Sloan and Adams, *History of Arizona*, 3:443–44; *Arizona Republic*, 11 June 1950, sec. 2, p. 1, cols. 5–6, 28 January 1962, sec. D, p. 6; Peplow Jr., ed., *Taming the Salt*, 88–91). Alkire's papers are at the Arizona Historical Society in Tucson; in 1974 he wrote a charming piece in the *Journal of Arizona History* about his wife's experience on the ranch ("The Little Lady"). His brother George Alkire also became a prominent Phoenix businessman (*Arizona Republic*, 14 April 1955, p. 15, cols. 1–3).

Joe F. Singleton was a ranchman who apparently was a partner of Frank and George Alkire at this time (*Phoenix Herald*, 14 July 1887, p. 3, col. 2).

45. This plan map has not been found in any of the repositories. The site, however, is clearly AZ T:4:8 (PC) (see Spoerl and Gumerman, eds., *Prehistoric Cultural Development*; Wilcox, Robertson Jr., and Wood, "Antecedents to Perry Mesa").

46. Again, this plan has not been located, but the description fits AZ T:4:8 (PC) remarkably well (see Spoerl and Gumerman, eds., *Prehistoric Cultural Development*, 67).

47. Indeed, within four miles of AZ T:4:8 (PC) there are five other hilltop sites that have been reported or are marked as "Ruins" on the Geological Survey quadrangle for Daisy Mountain, Arizona (ibid.; van Waarden, "Hilltop Sites"; Wilcox, Robertson Jr., and Wood, "Antecedents to Perry Mesa").

48. This mesa may have been Table Mountain, which lies a mile northeast of the Eylar Ranch site and is about 360 feet high off the plain.

49. These drawings have not been found.

50. If they did come eighteen miles from the Eylar Ranch, this was probably Scatter Wash. To the west are the Hedgepeth Hills, and to the east is Fort Mountain. Canal systems have been recorded in this vicinity (Rodgers, "The Fort Mountain Complex"; Bruder, *Archaeological Investigations*).

51. The Arizona Canal was completed by the early Phoenix developer William John Murphy (1839–1923) in April 1885 (Murphy, "W. J. Murphy"). He also was one of the founders of the Valley National Bank and was the first to plant an orange orchard in Arizona. In 1887 he had the contract to do the grading for the Maricopa and Phoenix Railroad (with Herbert R. Patrick as engineer). He continued to be a major force in the development of Phoenix for many more decades (Peplow Jr., ed., *Taming the Salt*, 37–40; see also Biographical Files, Arizona Historical Society).

52. George Henry Boughton (1834–1905) was an Anglo-American painter who

lived mainly in London and was known for the delicacy and grace of his pictures, those of Dutch life and scenery being especially characteristic (*Encyclopaedia Britannica*, 14th ed., 3:959). This allusion to Cushing comes from Margaret Magill's diary (8 February 1887, HFL).

53. The name Phoenix was suggested by Brian Philip Darell Duppa (1832–92), a member of the Swilling party, which in 1867–68 reestablished canal irrigation in the Salt River Valley by following the routes of prehistoric Hohokam canals. As the second son of an English gentleman who was born in Paris, Duppa had a classical education and read some Greek and Latin; he spoke French, Spanish, Italian, and English. Gazing about at the Hohokam ruins, he recalled the myth of the phoenix that rose from its own ashes (Matthews and Evans, "The Father of Phoenix").

54. William Lewis Osborn (1842–1927) had a ranch and dairy farm located from Seventh to Fifteenth Avenues and Thomas to Osborn Streets in Phoenix (Robinson, *Story of Arizona*).

55. One of these "various missions" was apparently to stop by a newspaper office; under the title "Scientific Research" the *Arizona Gazette* (10 February 1887, p. 3, col. 2) did take notice of Cushing's arrival: "His mission here is in the interest of the bureau of ethnology of the Smithsonian institute, and he will investigate the ancient ruins in our valley as well as those on the Gila river, spending several weeks in the work in this immediate vicinity. After concluding his investigations in the southern counties, Mr. Cushing will proceed up the Verde river to inspect the old stone ruins and cave dwellings. Mr. Cushing is a very agreeable gentleman, and an enthusiast in the pursuit of knowledge in the line which he is now following."

56. Both Pima men and women traditionally wore facial tattoos, made by means of a tool consisting of cactus spines tied together with cotton; charcoal was rubbed into the skin through two operations over a six-day period (Russell, "The Pima Indians").

57. Joe Gunn was the proprietor of the Commercial Hotel Restaurant in Phoenix (*Arizona Gazette*). By 1895 he was the proprietor of the Phoenix Restaurant and Chop House, Main Street, Phoenix, "in connection with the Palace Saloon" (*Arizona Sentinel*, 22 June 1895, p. 1, col. 4).

58. Cushing footnote: "Two bits" (twenty-five cents).

59. This was the site Turney (*Prehistoric Irrigation*) called "La Ciudad." Cushing called it "Pat's Ruin," after Herbert Patrick, who then owned it (see Wilcox, *Frank Midvale's Investigations*).

60. This was Turney's (*Prehistoric Irrigation*) Pueblo Grande mound, described in 1884 by Adolph Bandelier (see Bandelier, "Report"; Wilcox, "Pueblo Grande").

61. We have not been able to locate any additional historical information about this Adams family.

62. Probably saltbush rather than sage is indicated here.



63. It was again Darell Duppa's classical eye that saw in the saddle land between the South (Maricopa) Mountains and the mesa of Mesa a landscape like the vale of Tempe in Greece.

64. The "Grecian bend" was actually not, as implied in this comment, an article of women's clothing (or underclothing) but a popular style of dress and consequent posture for Victorian women of the 1870s and 1880s. According to one recent description of the style and its effects, "The Grecian Bend was the most erotic style of the century. To effect the look of the Bend women had to be corseted. The corset had to be laced as tightly as possible. Shoes had to have the highest possible heels in order to achieve the stride that attended the posture. Sauntering down the street required complicated mechanics. The body was thrust both backward and forward so that bosoms and buttocks would protrude as much as possible. The style was often so exaggerated, and the corseting so restrictive, that women could not sit upright in carriages" (McLaughlin, "The Voluptuous Woman," 6; see also Gernsheim, *Victorian and Edwardian Fashion*; Wilcox, *The Dictionary of Costume*). Needless to say, while their appearances were striking to some local inhabitants, it is doubtful that the Magill sisters were corseted into "Grecian bends" in the northern Sonoran Desert.

65. Camp Augustus was located on the north side of the Salt River opposite Tempe Butte. Its exact location is unclear.

66. This would be Tempe Butte.

67. Today the Maricopa Mountains are called the South Mountains.

68. Probably this is what Midvale ("Prehistoric Irrigation") called "Mesa Grande," or perhaps his Casa de Mesa.

69. This is probably the ruin Cushing later called Los Pueblos Arriba; it was excavated by Arizona State University in the 1970s. The slip-finished red and black painted pottery is probably Gila Polychrome, a fourteenth-century type that is in the Hemenway collections from this site (Haurly, *Excavations*, 188–89).

70. These figures and the map have not been located.

71. Already, it seems, a romance between Margaret and Fred had begun. Earlier in the day they had gone exploring together, and in his diary for 14 February Hodge described his Valentine message from Margaret as follows: "Mr. Cushing called while Mr. Garlick and I were talking, bringing a 'letter' from the ladies in the form of a valentine (for this is St. Valentine's day) and [it] was very comical, having two hearts at the top pierced by an arrow, while beneath were written two or three sentimental verses of the 'Roses are red, violets are blue' fashion. Even in this wild country Cupid shoots his darts, does he!"

72. As written, this passage did not make sense to us: "such as collars the of old Spanish records were"; hence our attempted correction.

73. The *Arizona Gazette* (10 May 1887, p. 4, col. 2), in the same issue that reported

Cushing's arrival in Phoenix, noted that James H. McClintock (1864–1934) had “taken charge” of the *Salt River Valley News*, which he sold within a year to Curtin W. Miller, who published the *Tempe News* for the next fifty-five years. The name was changed about 16 September 1887 (*Phoenix Herald*, 16 September 1887, p. 3, col. 2). During the Spanish-American War of 1898 McClintock became a brevet major in the Rough Riders and in later life enjoyed the political patronage in Republican administrations of being Phoenix's postmaster from 1902 to 1914 and 1922 to 1933. From 1919 to 1923 he held the post of Arizona state historian, producing a fine study entitled *Mormon Settlement in Arizona* in 1921 (Sloan and Adams, *History of Arizona*, 4:52–55; Fireman, “A Dedication”).

74. McClintock came to share fully Cushing's fascination with the prehistoric inhabitants of the Phoenix valley and always considered Cushing a brilliant archaeological pioneer “who combined the vision of a poet with the keen discernment of the scientist.” As late as 1930, in a series of radio broadcasts entitled “Forward Arizona” and sponsored by the Union Oil Company, McClintock recalled clearly and excitedly Cushing's early discoveries and their import for the region. See the transcripts of his radio lectures entitled “Ancient Pueblos of Arizona” (21 May) and “Indian Pueblo Dwellers of Today” (11 June), Arizona State University Library Special Collections. See also McClintock's discussion of Cushing's excavations in his three-volume study, *Arizona: Prehistoric, Aboriginal, Pioneer, Modern*, published in 1916 (1:11–13).

75. At this point, a page of the original manuscript (p. 82) is blank, but no text is clearly missing.

76. Today this feature in Papago Park is called “Hole in the Rock.”

77. This was probably Turney's (*Prehistoric Irrigation*) Pueblo del Monte.

78. Cushing footnote: “See *Essex Institute Bulletin*, Oct.–Dec., 1885.”

79. That is, north of the main mound; the high mound was probably a tower, similar to the Casa Grande (see below and Wilcox, “Pueblo Grande”).

80. Cushing is assuming here that this feature was a religious structure analogous to the modern Pueblo kiva.

81. This was probably a large east-west ball court, which Turney believed was the largest in the Salt River Valley (*Prehistoric Irrigation*, 105–6; Wilcox, “Pueblo Grande”).

82. Passage crossed out: “On reaching camp we found that the little book by our Historiographer, Prof. Ad. F. Bandelier, made mention of this identi—” This partial sentence presumably stated that Bandelier had previously noted these features in the landscape; see Bandelier, “Report.”

83. For a description and discussion of similar shrines, see Ferg, “Appendix E.”

84. See Haury, *Excavations*, 187.

85. Cushing soon called the mound La Ciudad de los Hornos after the many pit

ovens found there; Turney (*Prehistoric Irrigation*) called it Casa de Loma (see Wilcox, Howard, and Nelson, *One Hundred Years*).

86. James Cooper Goodwin (1864–1922) in 1884 was the first of his large family to arrive in Tempe from Missouri, and he soon became a prosperous farmer and entrepreneur. A Democrat, in 1898 he became a Rough Rider and later served in one territorial and two state legislatures, being responsible for having over two thousand acres of Papago Park set aside by President Woodrow Wilson for what he initially hoped would be a Papago Saguaro National Monument. In 1922 he died in a traffic accident on the Globe Highway (Tempe Historical Society, Tempe).

87. With this flash of insight, Cushing thus was the first to postulate what today would be called a “settlement system” formed by the clustering of Hohokam platform mounds along the Salt and Gila Rivers. Cushing proceeded to elaborate this hypothesis in subsequent pages of the Itinerary and in his preliminary report (Cushing, “Preliminary Notes”). Today, while there is widespread acceptance of the theory that villages located along the same macrocanal systems were politically integrated, the idea that all of the platform-mound communities along the Salt River formed a common political community, or “polity,” remains controversial (but see Wilcox, Robertson Jr., and Wood, “Organized for War”; Wood and Wilcox, “Where Did All the Flowers Go?”).

88. Dr. John L. Gregg (d. 1896) was a medical doctor and staunch Democrat who served in the Civil War as a Confederate in the Army of Missouri; he was the second white man to settle in Tempe (in December 1877), where he homesteaded 160 acres about two miles southwest of town in T 1 S, R 4 E, NW 1/4 of section 28 (see the Goodwin Map, PMA). He lost his leg earlier that same year due to an accidentally self-inflicted gunshot wound. It was said of him that “he typified the old-fashioned country doctor, . . . he never refused a call day or night, and the poor was served with as much care and attention as the rich” (“Old Settlers of Tempe,” THS).

89. See Gregg, *The Commerce of the Prairies*.

90. Hodge confided to his diary (21 February 1887) the experience of getting the newspaper containing McClintock’s article: “Visiting the office of the ‘News’ in order to secure two or three copies of the last issue, which I learned contained an editorial on ‘the Cushing party,’ I asked of the ‘devil’ who was busily engaged in type-setting for Mr. McClintock, the manager, and was told that he had ‘stepped out.’ I then asked the price of single copies of the ‘News,’ and he ‘didn’t know.’ ‘What,’ said I, ‘don’t you know what to charge when people want to purchase single copies of the paper?’ ‘No sir,’ replied the devil—‘we never sold a single copy.’ I gave him a nickle, took up two copies, and stalked out.”

91. This may be a reference to a site Turney (*Prehistoric Irrigation*) called “Las Colinas.”

92. Herbert Ralph Patrick (1854–1924), a native of Iowa via Illinois, was an engineer who carried out the survey for the Maricopa and Phoenix Railroad, which reached Tempe in July 1887. In 1903, in a pamphlet promoting John Benham's curio store, he published a map of the Hohokam canal systems of the Phoenix area and the associated prehistoric communities (Patrick, *The Ancient Canal Systems*; see Biographical Files, Arizona State Library and Archives).

93. John Samuel Armstrong (1857–1917), a liberal Democrat from Virginia, had experience as a newspaperman with the *Washington Post* in Washington, D.C., before coming west with his wife, Sarah, to found an Indian school at Sacaton on the Pima Reservation (1879–82). He then became C. T. Hayden's business assistant and soon was the legislator who obtained the Normal School for Tempe. He was postmaster of Tempe from 1886 to 1890, and he became a business partner in Tempe with the Danish farmer Niels Petersen (1845–1923), a fellow Democrat; by February 1887 they were shipping 100,000 pounds of barley on the Southern Pacific Railroad every week (Arizona Room, Hayden Library, Arizona State University, Tempe; *Arizona Gazette*, 5 February 1887, p. 3, col. 3; Hopkins and Thomas Jr., *The Arizona State University Story*). Charles Trumbull Hayden (1824–1900), who was born in Connecticut, was the first Anglo settler in Tempe, arriving in 1870; he built a flour mill and ferry and sponsored some of the earliest irrigation works. He was well loved by both Mexican and Mormon settlers, whom he helped and who called him "Don Carlos" (Merrill, *One Hundred Steps*, 155–57). His wife's name was Sallie Calvert (d. 1907). His son Carl Hayden (1877–1972) would become one of the longest serving senators in the United States Senate and was, during World War II, chairman of the Appropriations Committee. Sen. Barry Goldwater said flatly of Carl Hayden that he "did more for Arizona than any other man" (August Jr., "Carl Hayden").

94. Passage crossed out: "During the day Mr. Goodwin called to inform me that he had found a couple of men and if possible to make [an] appointment for our explorations on the morrow, this (Sunday) being a free day with him."

95. This was Mound A, La Ciudad (see Wilcox, *Frank Midvale's Investigations*).

96. Few of the Mexican-Americans who worked for the Hemenway Expedition were ever noted in the local newspapers; however, the *Phoenix Daily Herald* (10 December 1889) did report that "Manuela Sotela sold a lot 143 feet, between Tempe and Mesa City, to Jesus Arros for \$75."

97. The rancher Thomas Grantz Cartledge (b. 1850), whose wife was named Matilda (1852–1903), later became a Rough Rider during the Spanish-American War; both of them are buried in Double Butte Cemetery, Tempe (THS).

98. A new paragraph was here begun and then crossed out: "We had scarcely sat down to the latter and to a most enthusiastic discussion of the day's findings when we received a call from the principal inhabitants of Tempe."

99. The great mound of Tempe was the site later called Plaza Tempe by Turney (*Prehistoric Irrigation*).

100. This important observation strengthens the conclusion that the coursed-caliche wall construction of Classic period Hohokam structures was done by hand and not using forms, as has also been supposed (see Wilcox and Shenk, *The Architecture*; Wilcox, *Frank Midvale's Investigations* and “Pueblo Grande”).

101. Hiram Bradford Farmer, a native of upstate New York and a graduate of Union College who believed that “self-effort educates,” was the first principal of the Tempe Normal School (Arizona Room, Hayden Library, Arizona State University, Tempe). His house in Tempe, built in 1876, was later owned by James Cooper Goodwin; today, as the “Farmer-Goodwin House,” it remains one of the few properties on the National Register of Historic Places in this very growth oriented city (THS).

102. This crucial decision shows that Cushing had at least an intuitive understanding of a critical concept in scientific archaeology, that of provenience: the context of association of artifacts. Because of this decision, Emil Haury’s dissertation of nearly sixty years later (*Excavations*) was possible, thereby translating the findings of the Hemenway Expedition into modern archaeological terms.

103. Cushing was the first to report excavations in what today are called Hohokam platform mounds. Bandelier (“Report”) had earlier made surface observations, and his views of their construction differed from Cushing’s (see Cushing, “Preliminary Notes”; Bandelier, *Final Report, Part II*). Today, modern excavations at Snaketown by Haury (*The Hohokam*) and Las Colinas by Gregory (Gregory et al., “The 1982–1984 Excavations”) have produced a clarification of their structure and construction histories (see also Wilcox, *Frank Midvale's Investigations*).

104. Cushing thus began the first systematic study of Hohokam irrigation, which would be followed by the studies of Patrick (*The Ancient Canal Systems*), Turney (*Prehistoric Irrigation*), and Howard (“A Paleohydraulic Approach”).

105. The two paragraphs in brackets were crossed out by Cushing in the typescript, but we have included them as indicative of the direction of his thinking when he dictated them to Hodge in late January 1892. It is likely that Cushing intended to append a set of undated programmatic notes or statements that he also dictated at some point—probably in 1892 as well—to Hodge; these are now in his papers in the Southwest Museum. These passages (swm cc ms 6, undated) explain his decision to remain in the Salt River Valley for thorough excavations of the settlement clusters of Los Muertos and Los Hornos rather than gradually move, as originally planned, up the Gila and Puerco River Valleys northeastward toward Zuñi. We will present the full text of these additional passages in a future volume of this series.

## Part IV. Settling on Los Muertos

### Itinerary of the Initial Work

1. Courtesy of the Southwest Museum, Los Angeles, California, SWM CC MS 6 HAE 3.17; transcribed by David R. Wilcox.

2. Two lists of figures exist for this installment of the Itinerary: SWM CC MS 6 HAE 3.28 (figures 1–42) and HAE 3.4 (figures 1–54). The drawings themselves also have captions, which we reproduce with the drawings. The other two sets of captions—some identical, some different—are given in these notes. The Cushing caption for figure 1, on both lists, is “Sketch plan of first Excavation (in Pyral Mound XIVa)” (2–5 March 1887).

3. Cushing captions for figure 2: “Jar of mottled ware found containing cremated remains of infant” and “Jar as found under food receptacle containing remains.”

4. This critical decision further increased the subsequent scientific value of the collections, making possible both Haury’s (1945) and later Brunson’s (1989) dissertations.

5. Cushing captions for figure 3: “Kidney vase found near House Mound XIX—showing mended crack; as found.”

6. See Cushing’s letter in HFL CLB I:197–203. For Cushing’s long experience of frustration with photography on the expedition, see Hinsley and Wilcox, eds., *A Hemenway Portfolio*.

7. Cushing captions for figure 4: “Pictograph group showing symbol of the Rainbow God (a), storm wind, and fleeing serpent of water, etc.” and “Petrographs on lava boulders at foot of Maricopa Mts 3 1/4 miles west of Los Muertos; representing the three-arched rainbow, descending lightning storm, the serpent of flowing water and the serpent of swift wind or air—the ‘whirlwind of all the four ways.’”

8. This letter is dated 4 March 1887 (HFL CLB I:197–203). No “appendices” for the Itinerary were ever prepared.

9. Cushing captions for figure 5: “Caraffe or water bottle forms in Pyral burial, as found; water [bottles] both from Pyral mound.”

10. Cushing caption: “Fragment of decorated household water jar showing line of life space.”

11. Cushing captions for figure 7: “General view of First Excavations, Pyral burials” and “Sketch of finds in XIVa. General view of First Excavation—man standing.”

12. Cushing caption for figure 8: “Sketch plan of House Mound XIV showing Second Excavation: a. (wall of) first room; b. continuous room; c. 3rd room; d. drum jar, room a; e. bivalve shells; f. conch shell trumpet; war axe; club heads and priest’s badge ornament.”

13. Cushing captions for figure 9: “Outline of kettle drum found in room on House

Mound XIV” and “Outline restoration of Ancient kettle drum found in First room, House Mound XIV.”

14. Cushing captions for figure 10: “Sketch of Zuñi sacred kettle drum for comparison” and “Modern Zuñi Kettle drum of the Sacred Cult Societies.”

15. Cushing captions for figure 11: “Sacred Shell ladle or dipper” and “Shell ladle found with sacred paraphernalia in room a, House Mound XIV.”

16. Cushing captions for figure 12: “Sacred Conch Trumpet” and “Sacred trumpet shell found with kettle drum etc.”

17. Cushing captions for figure 13: “Double bladed war axe, Room a, XIV” and “Double bladed war axe found in room of the Sacred drum.”

18. Cushing captions for figure 14: “Spiral shell badge ornament of Priest” and “Priest’s shell badge found in room of sacred drum etc.”

19. Cushing captions for figure 15: “Comale or baking disc of terracotta” and “Fragment of Comale or terracotta baking disc, showing wicker impressions designed to mark tortillas.”

20. Cushing captions for figure 16: “Pima vase showing joined neck band” and “Modern Pima Vase Showing joined neck band or zone.”

21. Cushing caption for figure 17: “Restoration of Ancient vase from fragment shown in Figure 6 showing unjoined zone.”

22. That is, Margaret Magill’s. She and Fred Hodge married on 31 August 1891.

23. Cushing caption for figure 18: “Spindle cup representing llama-like quadruped <Patrick coll>.” Cushing refers here to the artifact collection of railroad engineer Herbert R. Patrick.

24. As early as 1882, during a visit to the Peabody Museum in Cambridge, Massachusetts, Cushing had formulated the hypothesis of a cultural connection between the Zuñi and ancient Peruvians. In May 1887 he told a reporter for the *Arizona Gazette* that certain petroglyphs on Tempe Butte “strongly resemble the vicuna and llama of Peru” (“A Pre-Historic Race,” 25 May 1887, p. 4, col. 2). In March 1888, when a “herd” of clay figurines was found at the Los Guanacos site northwest of Los Muertos, Cushing interpreted them as llamas (guanacos) and had searches made (in vain) for faunal remains of these animals.

25. At this point, one page of the original typescript is missing, including textual references to figures 18a through 22. We have included these drawings. The Cushing captions for them are as follows:

Figure 18a. “Terracotta Figurine of llama, Bandelier Colls; Museum of Natural History, N Y. Compare also with figs in Matthews’s Introduction to National Academy Report of U S W Expd” (see Matthews, Wortman, and Billings, *Human Bones*) and “Spindle cup of terracotta representing llama-like quadruped <Patrick coll>.”

Figure 19. “Fragmentary paint cup representing serpent and tortoise <Patrick coll>” and “Fragment (restored in outline) of paint cup representing serpent and tortoise <Patrick Coll>.”

Figure 20. “Complete paint cup of lava showing similar design <Patrick coll>” and “Paint cup of tufa or lava showing tortoise and serpent design <Patrick coll>.”

Figure 21. “Eagle or bird Fetish. Patrick Coll.” and “Eagle Fetish of red porphery—Ancient, found on surface of Piral Mound XXI.”

Figure 22. “Eagle fetish Modern Zuñi” and “Eagle fetish of fine red slate stone, Modern Zuñi.”

26. Cushing captions: “Shell carving of Gila Monster, Patrick Coll.” and “Amulet or carving of shell representing Gila monster, Patrick Coll.”

27. Cushing captions: “Sacred slate or tablet [palletes; see Haury, *The Hohokam*] (Patrick coll)” and “Sacred slate or medicine table <Patrick coll>.”

28. This is Mound A at La Ciudad, which in the middle 1920s was excavated by Frank Midvale for Dwight Heard (see Wilcox, *Frank Midvale's Investigations*).

29. This is the site Turney (*Prehistoric Irrigation*) called Pueblo Ultimo.

30. Cushing called this man Pima Juan. He probably is the same man who was part of the crew working under Herbert Patrick to build the railroad from Maricopa to Phoenix. That Juan was a “natural born engineer . . . , a 50 year old Maricopa Indian, who with his machete could cut through the Mesquite several miles a day a ‘Transit Peephole.’” This crew “had a great deal of pleasure fraternizing” with the Hemenway Expedition (James T. Simms, re Herbert Patrick, Arizona Historical Society).

31. A Raymond Valenzuela was a packer at the Hayden mill in 1900 (*Phoenix Directory for 1900*, 172). We have no further identity for J. M. Garcia.

32. Cushing captions: “Sacred water vase as found in Room a, XIV” and “Showing ‘line of life’ space and ‘open eyes.’ Compare with Fig. 27.”

33. Cushing captions: “Modern Zuñi water vase [for] comparison with Fig. 25.”

34. Cushing footnote: “*The Millstone*, Vol. IX, No. 10, p. 176; Indianapolis: 1884.” Cushing’s *Zuñi Breadstuff* series was partially reprinted in the 1890s and fully reprinted by the Heye Foundation, edited by Hodge, in 1920.

35. Cushing footnote: “Fourth Annual Report, Bureau of Ethnology, p. 510, et seq., 1886.”

36. Cushing captions: “Diorite sitting stone found in Room a, Mound XIV.” This stone looks a great deal like the loom weights found in fourteenth-century kivas on the southern Colorado Plateau.

37. Cushing captions: “Zuñi sitting block.”

38. Cushing captions: “View of first excavation in IIIa” and “View of first and second days’ Excavation in Mound IIIa.”



39. Cushing captions: “Sacrificial terracotta figurine found in House Mound XIV” and “Torso of sacrificial figurine of female found in House Mound XIV.”

40. Cushing captions: “Zuñi sacrificial figurine” and “Sacrificial terracotta figurine of modern Zuñi.”

41. Cushing captions: “Shell nose spike found in debris of Room a, Mound XIV” and “Nose spike or needle of haliotis or mother of pearl; found in House Mound XIV. *a'-su-a-ne* (‘nose-stitcher’), but not so rounded as are the little beaded nose-rings or half-rings [seen in] Figure 33 thus named by them also, which one sometimes sees [among] the Pimas.”

42. Cushing captions: “Beaded Pima nose ring” and “Beaded nose ring of cactus, modern Pima.”

43. Gray’s Ranch lay west of Los Muertos (see Goodwin Map, PMA).

44. Cushing captions: “Section and plan of Little Temple House, Los Pueblitos” and “Plan and Section of Lesser Temple House, Los Pueblitos.”

45. For a discussion of these data from a modern archaeological perspective, see Wilcox, “Pueblo Grande.”

46. Cushing captions: “Firebowl in upper story floor of little temple, etc.” and “Upper story of lesser Temple showing firebowl—etc.”

47. Cushing captions: “Incised children’s drawings on wall of little temple, etc.” and “a- Children’s Hunting scene, b- Lightning figure.”

48. Cushing captions: “Map figure of Basin and cañons etc. in Superstition mountains; a. road” and “I Ciudad de la Mesa; II Pueblo de Juan; III Los Pueblitos; IV Los Hornos; V Los Muertos; VI Las Acequias; [VII] Las Conopas.”

49. In Frank Midvale’s terms, this central temple-mound was probably Mesa Grande, which he once owned and helped to preserve (Wilcox, *Frank Midvale’s Investigations*). Jerry Howard, curator of anthropology at the Mesa Southwest Museum, has done much in recent years to move the mound into public ownership and to learn more about it. Mesa Grande was indeed the largest of all the Hohokam platform mounds (see Turney, *Prehistoric Irrigation*), though the Pueblo Grande mound is nearly as large, and they do form the twin elements of what may have been a dual political organization in the Salt River Valley (see Wood and Wilcox, “Where Did All the Flowers Go?”).

50. This is Casa de Mesa mound (see Midvale, “Prehistoric Irrigation”; and Howard, “The Lehi Canal System”).

51. For an excellent survey of the archaeology of the lower Verde Valley, see Canouts, comp., *An Archaeological Survey*.

52. Lt. Steward Mott died 11 March 1887 from injuries received the previous day in an assault by an Indian named Nah-Diaz-Az at the San Carlos Agency, Arizona Territory (Heitman, *Historical Register*, 1:732; *Phoenix Herald*, 13 May 1887, p. 3, col. 2).

53. Herbert Patrick eventually published a later version of this map (see Patrick, *The Ancient Canal Systems*).

54. This was the Mons Elliston ranch, Tempe (THS).

55. Cushing footnote: “Mr. Hodge afterward corresponded with one of the founders of the canal organization, and was informed that the actual saving amounted to at least \$25,000.”

56. Here again, in a brilliant flash of insight, we see Cushing’s genius as an ethnological archaeologist: his conclusion that the multiple villages along the same canal system must have cooperated is supported by modern researches (see Gregory and Nials, “Observations”; Howard, “A Paleohydraulic Approach”).

It is noteworthy, too, that here Cushing (writing in 1892, at the height of John Wesley Powell’s battles over his irrigation survey) reveals both an allegiance to Powell’s communitarian philosophy for the settlement of the Rocky Mountain West and a shared admiration for Mormon use of scarce water resources. On both of these points, see Worster (*A River Running West*, 467–532) and Hinsley (*The Smithsonian*, 136–38).

57. This most likely was a wild peccary, or javelina.

58. No such sketch map has been found.

59. Cushing captions: “Ancient stone age bow from grotto in Superstition Mt.” and “Ancient stone age bow of cactus wood, Grotto, Superstition Mountain.”

60. *Arizona Gazette* (“Is It a Hoax,” 10 March 1887, p. 3, col. 2) reported that a man named Reavis, who lived on the east side of the Superstitions, fifteen miles from Pinal, was apparently killed by Apache horse thieves who were fleeing the San Carlos Scouts.

61. Cushing captions: “Flat slate bird fetish found at Ciudad de la Mesa” and “Slate stone fetish of Eagle showing conventional treatment by incision. La Ciudad de la Mesa.”

62. Cushing captions: “Section of underground Zuñi ovens” and “Section of Zuñi ‘Ripening pits’ or underground oven, A, with draft hole for earth-heating[;] B, without draft hold (for stone heating).”

63. Cushing captions: “Section and sketch of Ancient Oven” and “Sketch and Section; An Underground Communal Oven (Los Hornos, April 1887).”

64. Hohokam earth ovens, still called hornos, are fascinating features. Wilcox excavated many of them at Los Hornos in 1979 (see Wilcox, Howard, and Nelson, *One Hundred Years*), and Howard did a comparative study of them (“The Casa Buena Hornos”).

65. No figures were found.

66. Cushing captions: “Sketch plan of Camp Augustus, a, Sibley tent; b, Miss Magill’s tent; c, Great ramada; d, Hodge’s tent; e, tent of Dah Yung and Indians; f, Garlick’s tent; g, storage awning; h, feeding racks; g, forage; i, wagons and buck-

boards; j, kitchen and storage shelters; k, kitchen of hung awnings.” In a later volume in this series, see also Margaret Magill diary for Saturday, 26 March 1887 (HFL), for her sketch of Camp Augustus, which closely matches Cushing’s description.

67. Cushing note in margin: “re orders to Mr. Hodge about keeping diary as per letter to Mrs. Hodge, April 6th.”

68. Orson Squier Fowler (1804–87) had been one of the outstanding proponents of phrenology (the study of personal character by “reading” the contours of an individual’s skull) since its heyday in the 1840s; he died only a few months after Cushing met him. Fowler became, in the middle third of the century, a major figure in advice literature concerning marriage, sexuality, continence, and reproduction (see Haller, *The Physician and Sexuality*, 126–27, 159–61; cf. HFL CLB 1:258–59).

69. Dr. George Emery Goodfellow (1855–1910) was a noted physician, surgeon, and Southern gentleman who moved to Tombstone in 1880, where he became “without question the most brilliant and versatile surgeon in Arizona before 1900” (Nation, “George E. Goodfellow”). Tombstone in 1886 had 15,000 people, second only to San Francisco in the West. For a charming account of Dr. Goodfellow’s experiences in Tombstone, see Sonnichsen (*Billy King’s Tombstone*, 186–202). Several of its citizens, including Dr. Goodfellow, had investments in the Tempe Land and Improvement Company, which was taking advantage of the arrival of the railroad in Tempe (*Tombstone Prospector*, 27 April 1887, p. 3, col. 1; *Star*, 8 December 1910, p. 5, col. 4; *Tombstone Epitaph*, 31 August 1933, p. 6, col. 1). The company was formally organized on 16 July 1887 (*Phoenix Herald*, 25 July 1887, p. 3, col. 2), thirteen days after the first train arrived in Tempe. Dr. Goodfellow would soon investigate the results of the great Bavispe earthquake of 3 May 1887 for his friend Clarence C. Dutton, head of the Geological Survey (“The Sonora Earthquake,” 162; see also Bennett, “An Afternoon of Terror”; Chaput, *Dr. Goodfellow*).

70. Maj. Frank S. Earle of California was the superintendent of the Tempe Land Improvement Company, a group of San Francisco and Tombstone investors who bought 240 acres from Hayden (and much other land from other owners) and developed it soon after the Maricopa and Phoenix Railroad arrived in town.

71. Petersen, Armstrong & Co. was a general merchandise store in Tempe owned by Niels Petersen and John Samuel Armstrong. The Hemenway Expedition did a great deal of business with this firm.

72. Cushing’s phrenological reading by the famous Professor Fowler was not the last such experience that seemed to him to vindicate his character in the face of misunderstandings. After the collapse of the expedition, in the depths of illness and depression in Washington in the spring of 1889, he consulted his friend Julia Coffin, a well-known psychic, who reported as follows: “Mr. Cushing will assert himself more than he has done before. In his anxiety to be perfectly just to each man, he has given

up too much to them, individually, & allowed them to contend too much with him, thus wasting his force. . . . There has been too much conceit and vanity, as to their own abilities. Too many scientists so-called. He can furnish the scientific part. . . . When he trusts to and uses his intuitional powers more, along with his practical opportunities for observation, he will attain greater results more quickly” (Coffin, “Experiments in Psychometry,” 9 April 1889, SWM CC MS 6 HAE 2.1).

73. This ruin is Turney’s (*Prehistoric Irrigation*) Pueblo Ultimo, still extant today on the Salt River Reservation east of Scottsdale.

74. At this point Cushing seems to have inserted an extra day in his account. The 3rd of April 1887 was indeed a Sunday; but the preceding two days could not both have been Saturday, 2 April.

75. Cushing took the following passages (and slightly revised them) in the spring of 1892 from Margaret Magill’s diary for 3 April 1887 (138–44). The final paragraph of the quoted Magill passages, as well as the preceding words “and at some of the huts they examined my garments quite as critically as I would allow,” were taken (presumably) from pages 143–44, which have since disappeared from the extant diary. It was unusual for Cushing to quote others at any length—a sign that he valued Magill’s observations. (The unpublished Magill diary is in the HFL and will be published in a future volume of this series.)

76. Cushing caption: “Pima Potter’s shaping pebble and paddle” (not found).

77. No caption for this missing figure from Margaret Magill’s diary was found.

78. Cushing caption: “Dark box, closed” (not found).

79. Cushing caption: “Dark box set up as for use showing canopy, etc.” (not found).

80. Regrettably, we have not found this watercolor or most of the rest of Margaret Magill’s watercolors.

81. “I finished my gingham dress while T. [Tenatsali, Cushing’s Zuñi nickname] read aloud . . . T. was too sick to go to the dance and Mr. Hodge backed out because he had no dancing shoes but he drove us (Em and me) over and fortunately it cleared by evening and the moon shone gloriously” (Margaret Magill diary, 7 and 8 April 1887, HFL).

82. Cushing caption: “Southern view of Camp Augustus, 12th April 1887, from photo” (not found).

83. Cushing caption: “Plan of first Temple mound Excavations at Los Muertos, a, End wall 1st row; b, central walls; c, 1st sarcophagus; d, altar and firebowl; e, 2nd sarcophagus; f, [blank].”

84. Cushing caption: “Sketch of first sarcophagus etc. Temple Los Muertos” (not found).

85. Cushing caption: “Altar and firebowl, Temple Los Muertos” (not found).

86. Cushing caption: “Sacrificial figure of dog” (not found).

87. Cushing caption: “Second sarcophagus, Temple Los Muertos” (not found).

88. Cushing caption: “Decorated jar found in 2nd sarcophagus, Temple Los Muertos” (not found). Judging from the description, this probably was a Tonto Polychrome jar.

89. Cushing caption: “Decorated Eating bowl found in 2nd sarcophagus, Temple Los Muertos” (not found). This was a Gila Polychrome bowl (Brunson, “The Social Organization,” 195).

90. Cushing caption: “Third burial cist of sarcophagus, Temple Los Muertos” (not found).

91. No figure or caption found. Judging by the description, this was a recurved Tonto Polychrome bowl (Brunson, “The Social Organization,” 196).

92. No figure or caption found.

93. No figure or caption found.

94. No figure or caption found.

## Part V. Afterword

### The Monumental and the Mundane

1. Jackson, *The Necessity for Ruins*, 101–2. On the Moundbuilder genre, see Hinsley, “Digging for Identity.”

2. On this point, see Renfrew, “The Great Tradition,” and Hinsley, “From Shell-Heaps to Stelae,” 53–62.

3. See Fowler and Wilcox, “From Thomas Jefferson.”

4. Holmes, “Report,” 390.

5. See the writings of Sylvester Baxter in the first volume of this series.

6. For analysis of the broader American cultural context of this turn to the closely empirical in the decades following the Civil War, see Shi, *Facing Facts*.

7. Fewkes to Hodge, 28 November 1906, SWM HC.

8. Cushing to Culin, 17 February 1899, Brooklyn Museum of Art Archives.

9. On the differences between Fewkes and Cushing in this respect, see Hinsley, “Ethnographic Charisma.”

10. See Haury, *Excavations*.

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