Collecting for the Centennial Indian Exhibit: The J. K. Hillers - Olin D. Wheeler Expedition to the Hopis in 1876

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On the first of March 1876, photographer John K. “Jack” Hillers and topographer Olin D. Wheeler arrived at the Moqui (Hopi) Pueblo Indian Agency in Arizona, where they met Edward S. Merritt, the teacher and unofficial clerk. Under directions from the Smithsonian Institution’s Bureau of Ethnology director John Wesley Powell, Hillers and Wheeler visited the Hopi villages to collect “tangible tokens” of Hopi culture for the Centennial Exhibition opening on 10 May 1876 in Philadelphia. The U.S. Indian agent for the Moqui, William B. Truax, accompanied them from Fort Wingate, New Mexico, to the Hopi villages. Thirty years later, in October 1906, Wheeler published an account of his experiences, titled “In the Land of the Moki,” in an issue of Talisman magazine. An elderly Merritt later pasted a copy of the Talisman article into his scrapbook while clipping memories of his Civil War service in the New Mexico Infantry. The scrapbook, which contains the only extant copy of the article, preserves Wheeler’s experiences with the Hopis. Wheeler’s “In the Land of the Moki” is reprinted here as an appendix. It provides a firsthand account of the first government-sponsored ethnographic-collecting expedition to the Southwest and documents the creation of Hillers’s photograph of “Dancers Rock, Wolpi,” one of the most...
Preparation for the Centennial Exhibition

In Philadelphia, from 10 May to 10 November 1876, the United States hosted an exhibition celebrating the centennial of the Declaration of Independence. In the Act of 3 March 1871, Congress officially named the event the “International Exhibition of Arts, Manufactures, and Products of the Soil and Mine” and intended it to be “an exhibition of the natural resources of the country, their development, and of [the nation’s] progress in those arts which benefit mankind, in comparison with those of the older nations.” Included in the Centennial Exhibition was the first major exhibit of American Indian cultures, which by all accounts became a visual highlight of the U.S. Government Building.  

On 23 January 1874, the Board on Behalf of the United States Executive Departments was created to coordinate the exhibits mounted by the federal
government. Among the federal units involved in the exhibition was the Department of the Interior, which sponsored exhibits of the Indian Bureau and of the Geological Surveys of the Territories, the latter conducted by geologist Ferdinand V. Hayden and Powell. The Smithsonian Institution, also under the auspices of the Interior, offered a mineral section, an animal section, and an exhibit of its publications. John Eaton, commissioner of education, was appointed to the board by the Interior secretary; Spencer F. Baird, assistant secretary of the Smithsonian, represented the Smithsonian Institution as well as the U.S. Commission of Fish and Fisheries; and Col. Stephen C. Lyford of the War Department was made chairman of the board by Pres. Ulysses S. Grant. Baird was the driving force behind the formation of the Indian exhibit, including the Hillers-Wheeler expedition.

In 1846 by an act of Congress, the Smithsonian Institution was created to fulfill the terms of Englishman James Smithson’s will, which requested Smithson’s estate be utilized for founding an institution for “the increase and diffusion of knowledge” in Washington. The first Secretary of the Smithsonian Joseph Henry saw scientific research and publication as the institution’s primary purpose. Congress had entrusted custodial rights over all federal government collections to the Smithsonian. Conserving federal collections, however, did not become a central concern until Baird’s appointment as assistant secretary in charge of publications and collections in 1850.

Baird “adopted a strategy to secure funding for a national museum by encouraging government expeditions and surveys to collect such ‘a mass of matter’ that it would force the Congress into establishing a national museum under the Smithsonian’s direction.” In 1861 he asked George Gibbs, a self-taught linguist and ethnographer, to prepare a circular, broad in its approach to ethnological materials, for distribution to correspondents and institutions. Baird wrote, “almost everything has its value in giving completeness to a collection.” Within a decade, donations and government deposits resulted in a ten-fold increase in the Smithsonian’s holdings. Little of the natural and cultural materials, however, were the product of systematic collecting. The constant lack of adequate funding frustrated Baird’s efforts to increase and develop collections, and his dream of a national museum seemed beyond realization.

Baird clearly saw the Centennial Exhibition as an opportunity to further the work of the Smithsonian Institution and, in turn, to move toward the creation of a National Museum. First, the board included in its budget “$200,000 for a building at Philadelphia capable of removal to Washington after the close of the Exhibition, to be used as a National Museum.” Second, Baird saw foreign exhibitors at the Centennial Exhibition, as well as the federal agencies with displays in the Government Building, as a source of additional materials.
And third, Baird proposed that the Smithsonian Institution make use of its collections and develop an exhibit for the Indian Bureau. In the process, he was able to obtain funds allocated for the Interior Department to produce ethnological collections for the future National Museum.11

On 1 July 1875, the board adopted the plan of a building “suitable for the United States collection.” The structure, designed by Philadelphia architect James H. Windrim, would be erected out of funds appropriated by Congress.12

The U.S. Government Building covered an area of 83,640 square feet and included exhibits of the Signal Service Bureau, War Department, Navy Department, Coast Survey, Lighthouse Service, Army Medical Department, Department of Agriculture, Interior Department, Commission of Fish and Fisheries, and the Smithsonian Institution.13

Conversations regarding an “Indian Exhibit” had begun in 1874, with Baird and Powell taking the lead. By December several plans started to emerge. Comr. of Ind. Affs. Edward Parmelee “E. P.” Smith suggested “an exhibition of living representatives of the principal Indian tribes.” Members of several tribes, “picked specimens of their humanity,” would live in their traditional dwellings on the Centennial grounds and “carry on their various occupations.”14 Powell, along with Centennial Exhibition commissioners Stephen Powers and Thomas C. Donaldson, actively recommended which tribes would serve as “living representatives.”15 In his last minute proposal to the commissioner of Indian affairs on 29 March 1876, Baird made “no provision for the partially civilized tribes living nearer the older portions of the United States . . . as their mixture with whites & negroes & their adoption of their manners & customs renders them less interesting as subjects of ethnological display.” The tribes “desirable to have represented” included the Aleuts, Colosh (Kolosh, Russian name for Tlingit), Makahs, Hoopaws (Hupas), Comanches, Yocuts (Yokuts), Shoshonis (Shoshones), Sioux, Mandans, Pai-Utes (Paiutes), Navajos, and Moquis (Hopis). Baird’s estimate of expenditures for the “Exhibition of Indian Tribes” was a prohibitive $115,000. Despite wide support among Indian agents, Indian leaders, and the general public, this proposal eventually failed to receive congressional funding.16

Collecting for the Government Building exhibit involved two strategies. The first approach was to start collecting, although funding was not yet available. Congress did not approve the budget for the Government Building and exhibits until March 1875, just over a year before the Centennial Exhibition was scheduled to open. Nevertheless, Henry drafted a letter sent to all Indian agents (over ninety) and asked them to forward what materials they could obtain “without cost” and to prepare estimates for purchasing others.17 Ethnologist Otis T. Mason was hired to write “proper instructions" to
guide the agents. Planners expected the exhibit to show the “past and present conditions” of American Indians, but Powell insisted that the cultural artifacts reflect Indian cultures before contact with Europeans. Despite a “reminder” sent on 16 November 1875, only about one-fourth of the agents responded and virtually all the materials they identified were rejected. Ironically, Indian Bureau funds were used to celebrate traditional Indian cultures at a time when its explicit policy was one of promoting “civilization” among Indian peoples. On 29 March 1876, less than six weeks before the opening of the Centennial Exhibition, Baird recommended that nine specific agents collect and forward objects for the Indian exhibit. He closed his letter by stating, “Their collections are not likely to add very materially to the present richness of the ethnological exhibition of the Bureau, & what would be paid to them from the allowance can perhaps be better expended otherwise.”

The second strategy, one favored by Baird and Powell, involved the appointment and funding of special commissioners, eventually five in number. Baird and Henry had built much of the Smithsonian’s collections by securing gifts from “correspondents.” One of the most important of these collectors, James G. Swan of Port Townsend, Washington, became increasingly insistent that the Smithsonian pay or, at least, reimburse him for the materials he obtained. Baird had no resources, however, except funding for the Centennial Exhibition, which included the generous $45,000 budget allocated to the Indian Bureau. Baird believed the Indian Bureau’s ample budget offered an opportunity to collect “in those areas not well represented.” Through his tacit agreement with the commissioner’s office, Baird proposed the names of special commissioners and the funding necessary for their collecting missions. Emil Bessels of the Smithsonian was allocated $3,500 to collect in northern Alaska; Swan had $10,000 to use on the Northwest Coast; and initially Baird designated $5,000 for Powell in the Southwest and Great Basin. It later became clear that the Indian agents could not provide materials “of interest” with funds set aside for them, and the monies were reallocated and additional commissioners were appointed. Powell recruited Powers, and Baird allocated $2,000 for Powers to collect in California and Nevada. Baird also provided $1,500 to Paul Schumacher for excavations and collections made in Oregon and southern California.

Money allocated to the Indian Bureau was also used for exhibit cases, to mount displays, and for staff under the direction of archaeologist Charles Rau. In 1875 Rau was appointed resident collaborator in ethnology at the U.S. National Museum and was charged with setting up anthropological exhibits for the Smithsonian at the Centennial Exhibition. Although he recognized
that more was known about their function in contemporary cultures, Rau
arranged the objects collected for the Indian exhibit by physical type as was
typical with prehistoric artifacts (e.g., all wooden materials together, all pottery
together). The concept of culture area as an organizing principle in museum
exhibits was not employed until the early twentieth century.24

Powell and the J. K. Hillers–Olin D. Wheeler Expedition
to the Southwest

Powell was appointed a special commissioner on 22 May 1875, and received
five thousand dollars, appropriated initially to collect “objects illustrating
the history and condition of the various tribes of Indians in Utah, Arizona,
and New Mexico,” specifically the Shoshonis, Bannocks, and Moquis and
other Pueblos.25 During the summer, members of Powell’s survey returned to
northern Utah to continue their geological and geographical research. While
there in August and September, Powell commissioned several Paiutes and
a Shoshoni to prepare “garments for lay figures [mannequins] to represent
the costumes” of their tribes for the Indian Bureau’s Centennial exhibit.26

Meanwhile a party from
Hayden’s survey (First Division, Geo-
logical and Geographical Survey of the
Territories) reached the Hopi villages
in August, and photographer William
Henry Jackson made photographs on
the First and Second mesas. Edwin
A. Barber published an article in the
New York Herald detailing their visit.
Hayden, an active “publicist and pro-
moter,” also tried to make the most
of Jackson’s work at the Centennial
Exhibition.27

Powell had visited the Hopis
for two weeks in early October 1870.
Likely in response to the potential competition for influence and funding represented by Jackson’s work, Powell prepared an account of his own more extensive visit, now claimed to be “nearly two months.” In December 1875, *Scribner’s Monthly* published his piece as the lead article with engravings based on stereographs taken by Hillers at the Hopi villages in late October 1872. Then, sometime during the fall of 1875, Powell proposed to Hillers and Wheeler, both members of his survey expeditions in Utah and Wyoming, that they travel to the Southwest with the object of making photographs and collecting materials for the Centennial Exhibition.

In November 1875, the Interior Department distributed congressional funds allocated to its various bureaus. Hayden and Powell each received a meager $1,472.65 to prepare the exhibits of their U.S. Geological and Geographical Survey(s) of the Territories. Hayden had already begun work at that time. He instructed Jackson to make transparencies of his photographs and to assist anthropologist and archaeologist William Henry Holmes in preparing plaster and papier-mâché models of Yellowstone National Park, the Elk Mountains, and ruins in Mesa Verde and along the Rio de Chelly.

On 11 December, the day Edward P. Smith resigned as commissioner of Indian affairs, Powell requested another five thousand dollars so that “a thorough collection of articles representing the arts and industries of the Pueblo people may be made.” Baird wrote a supporting letter addressed to Smith stating, “I consider it of more importance to have a perfectly exhaustive representation of a few interesting tribes than to have a skimming of material from a large number.” He added, “We must look for collections of a proper character & such if preserved carefully will show at the next centennial the present condition of the native races, which by that time will have entirely disappeared.”

With the Centennial Exhibition due to open in less than six months, Powell, Hillers, and Wheeler hastily began preparations. On 22 December, with funds provided by Powell, Hillers purchased photographic equipment and supplies totaling $698.30. This investment underscored the importance of photography in Powell’s self-promotion and in the rivalry among the Great Surveys. Included was a huge 20 x 24-inch camera, glass plates in three sizes (20 x 24, 8 x 10, and, 5 x 8), chemicals for wet-plate (collodion) photography, a tripod, and materials for a tent darkroom.

Powell made arrangements for Gilkson and Sloss, a St. Louis firm, to send one bale of cotton (490 pounds) “to Oraibi, an Indian Pueblo in northern Arizona to be manufactured into ceremonial costumes.” Other purchases included two thousand labels in two sizes for “Indian articles” and five books of vouchers required for the reimbursement of money spent for all goods
and services needed during the expedition. On 13 January 1876, five boxes weighing 695 pounds and one bundle weighing 25 pounds were shipped by rail by the Adams Express Company from Washington, D.C., to West Las Animas, Colorado. On 5 January 1876, Sect. of the Int. Zachariah Chandler authorized an additional $2,500, half the amount Powell had requested, to the $5,000 already allocated on 22 May 1875. The sum would enable Powell to make “a thorough collection” among the “Pueblo and other Indians he proposes to visit.” In addition newly appointed Comr. of Ind. Affs. John Quincy “J. Q.” Smith authorized Powell to make photographs and to “employ such person as may be necessary to carry out these instructions.”

In the meantime, Hillers and Wheeler had started their travels westward, agreeing to meet in St. Louis on 15 January 1876, now less than four months before the opening of the Centennial Exhibition in Philadelphia. Wheeler left Washington, D.C., on 23 December, taking the Pennsylvania Railroad to Pittsburgh, where he stayed until 14 January before continuing on to St. Louis. With photographic equipment and supplies to pack, Hillers did not leave Washington, D.C., until 13 January. He rode the Baltimore and Ohio Railroad directly to St. Louis. After his arrival, Hillers wrote Powell from the Planters House: “All is right. Met Wheeler here. Bought an assortment [46 pounds] of Beads $34 worth. Also bought a bundle of Peacock feathers paid $9 for them. We leave here this night.” Powell’s endorsement on the vouchers for the beads and peacock feathers explained that they were “to be used in bartering with Indians.” On 17 January, Wheeler and Hillers reached Kansas City, Missouri, aboard the Kansas City and Northern Railroad. Transferring to the Atchison, Topeka and Santa Fe Railroad, they pulled into West Las Animas, Colorado, the end of the line, two days later.

On 21 January, after waiting two days for the photographic materials and bartering goods to reach West Las Animas, Hillers informed Powell that a stagecoach left for Santa Fe, New Mexico, every day and that their freight would take fifteen days to reach there. Hillers wrote, “I hope you will come. . . . This delay worries me so but there is not help for it. If our time could only be longer I would be at ease.” Indeed, Hillers had much to worry about.

Wheeler had hoped Powell would join him and Hillers. The following day, Wheeler wrote to Powell that they would “leave tomorrow morning by stage, reaching S. Fe in 72 hours.” Wheeler added, “When you come you had better bring a couple of blank books for vouchers along.” On 24 January, Adj. Gen. Edward D. Townsend in the War Department wrote William T. Sherman, “General of the Army, [in] St. Louis, Missouri,” that Powell was “about to proceed via Fort Wingate, N.M., to certain points in Arizona Territory, for
the purpose of making Ethnological collections for the Centennial Exhibition.” Townsend continued, “He [Powell] has applied to be furnished with transportation from Fort Wingate, from that point to the Moqui towns, and eastward from the same place to some point on the Rio Grande and I have the honor to inform you the Secretary of War has directed that the desired transportation be furnished, if it can be done without prejudice to the military service at the various posts where it is needed, and to request that the necessary instructions be issued.” As late as 2 February, Comr. of Ind. Affs. John Q. Smith wrote to agent W. B. Truax at Fort Defiance, Arizona, “Maj. J. W. Powell . . . will visit the Moqui Pueblo” to make a “collection of Indian articles for the Centennial Exposition.” Unclear from the record is why Powell failed to follow through with his travel to the Southwest.

On 26 January 1876, Hillers and Wheeler reached Santa Fe, where they stayed at the Exchange Hotel until 14 February. There they awaited the “arrival of freight [from West Las Animas]” and assembled “collections at Pueblo [of Tesuque on 5 and 6 February].” When back from Tesuque, they hired George W. Wellens (or Wallons) to serve as the expedition’s cook. From J. L. Johnson and Co., Hillers and Wheeler purchased “flour, bacon, coffee, sugar, ½ dozen bottles of pickles, yeast powder, dried peaches and apples, and beans”; cooking utensils; and “articles to be distributed to Indians.” The latter items were 6 dozen butcher knives; 5 kegs of gunpowder; 10 lbs of percussion caps; 300 lbs of lead; 100 yards of brown sheeting; 447 yards of calico prints, in addition to another 481 yards of fabric; 2 dozen men’s hats; and 1½ dozen over shirts. Freighter Joseph Drais transported the 2000 lbs of goods and “fares for Wheeler and Hillers from Santa Fe to Fort Wingate [New Mexico].” Leaving Santa Fe on 14 February, they rolled into their destination eight days later.

The Hillers-Wheeler outfit made an impression when it pulled into Fort Wingate. John V. Lauderdale, a U.S. Army surgeon, recorded on 22 February, “I learned just now that some members of Major Powell’s party reached here today from the East. They are on a collecting tour among the Moqui and other Pueblo Indian tribes . . . There is a photographer with the Powell party who has one of the largest sized cameras and will take a series of pictures for the Centennial Exhibition, 20 x 24 inches in size.” As Powell had arranged, Hillers and Wheeler were provided with two army wagons and teamsters at Fort Wingate to transport them to the Hopi villages. On 24 February, Lauderdale wrote, “Dr. [W. B.] Truax and Mr. Wheeler of the Powell party called. Dr. T. goes with W. to the Moqui villages to assist the party in securing as many specimens as possible for the Centennial Exposition.”

Having dismissed the teamsters they hired in Santa Fe, Hillers and Wheeler shifted the camera equipment and goods for bartering, including the cotton
bale, to the army wagons. Traveling by way of Fort Defiance, Arizona, the party, which now included Hillers, Wheeler, Agent Truax, two teamsters, and the cook, arrived at the “Moqui Pueblo Indian Agency” on the first of March. The agency and a trading post owned by Thomas Varker Keam were located at what was then called Peach Orchard Spring, later known as Keam’s Canyon. Thomas’s younger brother William “Billy” Keam was the clerk at the trading post. He was hired as “Interpreter to O. D. Wheeler and J. K. Hillers from March 4 to March 20 [and] from March 21 to March 22 noon.”

Although Wheeler’s “In the Land of the Moki” provides a detailed, sometimes humorous account of Hillers and Wheeler’s work among the Hopis, other sources contribute more insight into their expedition. Hillers’s photographs suggest that he made in different formats a number of images of the dance plaza at Walpi. In some shots he posed the Hopis, placed pottery in the foreground, draped textiles on the walls, and moved ladders in an effort to create photographs that documented Hopi vernacular architecture and were, at the same time, aesthetically pleasing. Other photographs reveal that snow fell sometime during their visit.

Hillers and Wheeler apparently ran short of bartering goods at Hopi. Vouchers indicate that they purchased from “T. V. Keam, Post Trader, Moquis Agency, A.T., 100 yds Calico and 50 yds Columbia sheeting [as well as] 2 suits of Buckskin for the Collection.” From the inventory of 686 objects...
collected, Wheeler and Hillers clearly succeeded in acquiring not only “arts” (examples of pottery, textiles, katsina dolls, and ceremonial paraphernalia) but also the “tools” (“loom with blanket,” “vessel for holding paint,” “smoothing stone,” “implements for working wood”) used in their creation. In addition they obtained a wide range of other material objects (“gambling implements,” “dried pumpkin” and other foodstuffs, “rabbit skin shirt,” “tobacco in cloth pouch,” “wood hoe”). Wheeler also worked with two Hopis, Yah-te and Naghe-vema, to record carefully “the Indian name of things.”

Most of the nearly three weeks was taken up with collecting and making photographs on First Mesa. However, Wheeler and Hillers also visited Second Mesa (as Jackson had the previous year), and Hillers took photographs of Mishongnovi and Shipaulovi. With time running short, army wagons and teamsters transported Hillers, Wheeler, and the collection from the Moqui Pueblo Indian Agency to Santa Fe. While in Santa Fe, Wheeler telegraphed Powell on 11 April, “Arrived today. Where shall collection be shipped to [Philadelphia or Washington?]” He then added ambiguously, “Telegraph plenty of money and instructions.” On the thirteenth, Powell responded, “Hillers come by stage with negatives and camera. Wheeler come with freight by wagon. Each call at West Las Animas post office for instructions and money.” Wheeler replied with another telegram, “Owe money here. Must have five hundred dollars.” And again the following day, he pleaded, “Must have two hundred more. Also want money in Las Animas.” On the fifteenth, Powell wired five hundred dollars to Wheeler in Santa Fe, where Hillers and Wheeler paid for lodging at the Exchange Hotel, and to Barlow and Sanderson Stage Company for “two fares and 100 pounds extra baggage [Hillers’s camera and negatives].” The two finally arrived in West Las Animas on 18 April.

In West Las Animas, Hillers telegraphed Powell, “We are here. Send me money to travel with.” Powell responded the following day, “Sent both you and Wheeler money to West Las Animas.” Apparently the funds arrived the same day that Hillers left West Las Animas on the Atchison, Topeka and Santa Fe Railroad for Kansas City. He then rode the St. Louis, Kansas City, and Northern Railroad to Washington, D.C., arriving there with his camera and glass negatives on 24 April.

Hillers began processing photographs the following day. On 1 May he purchased one hundred frames for the 8 x 10-inch photographs he made in Indian Territory (Oklahoma) the previous spring and in the Southwest, and nine 22 x 28-inch frames for the 20 x 22-inch photographs he made at the Hopi villages. He completed his work on 5 May, only five days before the opening of the Centennial Exhibition in Philadelphia.
Meanwhile, Wheeler stayed at the American South Hotel in West Las Animas from 18 April until 3 May, awaiting the arrival of “3,582 lbs of freight” from Santa Fe. The collections from Hopi and the rest of Hillers’s photographic equipment finally rolled into town on 25 April. The following day Wheeler bought “band iron and nails” to secure the boxes, paid for “nailing boxes,” and telegraphed Powell, “Collections arrived. Shall I send by express. Telegraph me two hundred dollars.” Wheeler then received two telegrams from Powell, “Sent you money in mail today”; and “Send Jack’s things by express, collections by freight.” Another exchange of telegrams confirmed the method of payment for transporting the collections.48

Wheeler left West Las Animas on 4 May, less than a week before the opening of the Centennial Exhibition. During his stay in Colorado, he was interviewed by Charles W. Bowman, editor of the Las Animas Leader, who noted Wheeler had packed the collection of “a large quantity of pottery, dancing ornaments, foods, costumes, blankets, implements of war and of the chase.” Bowman encouraged readers traveling to Philadelphia “to look for the Moqui Indian collection.”49 The “11 boxes, 2605 lbs of Indian collections,” were sent to Washington, D.C., and apparently arrived too late to be included in the opening of the Indian exhibit.50

For “services rendered in collecting Indian articles and photographs,” Wheeler received $150 per month from 1 December 1875 until 30 April 1876, and Hillers accepted $175 per month starting 1 January 1876 and ending 30 April 1876. Comr. of Ind. Affs. John Q. Smith complained immediately to Baird of the “excessive” salaries paid by Powell to Hillers, Wheeler, and “the Interpreter” Billy Keam. Responding the next day, Baird assured the commissioner that any photographs of Indians “made at the expense of the allowance to [Powell]” would be “exhibited in the space assigned to the Bureau as a part of its collections & not in that of Major Powell himself.”51

The Centennial Exhibition

For all the expense and effort, there was little public notice of the photographs and collections made by Hillers and Wheeler. Philadelphia Public Record writer Augustus C. A. Perkes, seldom given to superlatives, noted simply the presence of “views taken in the ancient province of Tusayan, Northern Arizona,” “some good specimens of pottery from the Moquis,” and “earthen bowls from the Pueblos [Tesuque], Santa Fe, New Mexico.” Far more popular were Jackson’s photographs and transparencies, a crayon drawing “of the interior of a dwelling of a Moqui Indian,” and a model of a ruin “restored to its probable original state, [with] tiny men and women . . . at their daily work,
grinding corn, carrying water, etc.” After the exhibition, Hayden continued to use Jackson’s photographs as propaganda to promote the work of his survey. Powell, on the other hand, could not publish Hillers’s Hopi photographs, which were the property of the Indian Bureau.52

Nevertheless, Baird and Powell were successful in other ways. The work of the commissioners, especially Swan and Powell, produced comprehensive and well-documented collections. Baird was so successful in persuading foreign exhibitors to leave the contents of their displays that this material, combined with the ethnographic artifacts from the U.S. Government Building, amounted to 812,000 pounds and required 42 boxcars to haul the cargo from Philadelphia to Washington, D.C. On 3 March 1879, Congress finally appropriated $250,000 for the construction of the National Museum. Beyond these tangible results, Baird and Powell established a working relationship that led to Powell’s appointment on 9 July 1879 as the director of the Bureau of [American] Ethnology and Hillers became the agency’s chief photographer.53

The story of Hillers’s photographs taken at the Hopi villages does not end with the Centennial Exhibition. In 1875, while preparations were being made for the exhibition in Philadelphia, the International Congress of Geographical Sciences took place in Paris, France. Underscoring the rivalry among the Great Surveys, historian François Brunet writes, “On that occasion, the Société de Géographie was given the extraordinary albums and portfolios of the Hayden, King, and Wheeler surveys, which number today among its ‘treasures.’ In late 1875, Hayden and Wheeler were both appointed foreign respondents of the Société de Géographie, a title neither would fail to exploit in the United States.” Brunet continues, “In 1877, Major Powell would in turn mail to the Société de Géographie a magnificent series of very large views of Hopi villages by Hillers.” These pictures were the nine 20 x 24-inch images displayed at the Centennial Exhibition. The competition between the Great Surveys ended with their consolidation into the U.S. Geological Survey by an act of Congress on 3 March 1879.54
J. K. Hillers Portfolio: Hopi Photographs at the Centennial Exhibition, 1876

ILL. 1. WOL-PI
This photograph of Walpi was taken using a favorite vantage point for nearly every photographer who visited the Hopis in the nineteenth century. As a result, a visual record exists of changes in the dry-wall construction of the sheep corrals in the foreground. J. K. Hillers’s spelling of place names such as Wol-pi and Te-wa reflect nineteenth century usage and not the modern spellings.
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (1))

Facing Page, bottom: ILL. 3. TERRACED HOUSES IN WOL-PI
Hillers made three pictures, each with a Hopi posed on a ladder or seated on the ground as he moved his camera farther away from the kiva at the left.
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (3))
HILL. 2. DANCERS ROCK, WOL-PI

Hillers made three photographs with Hopi men and women posed on ladders, walls, and the rock formation, but chose this image, with only a dog clearly visible, for display at the Centennial Exhibition. (Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (2))
ILL. 4. STREET SCENE IN WOL-PI

(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (4))
ILL. 6. THE COURT IN SHI-PAU-I-LUV-VI

The captions are incorrect for this photograph and for images 8 and 9. Hillers took these photographs in Mishongnovi. He made four images, one with the diffuse light of early morning and then the three chosen for the Centennial Exhibition. In these photographs, a general view of the plaza is followed by two, which move slightly from left (passageway) to right (the governor’s house).
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (6))

Facing page, bottom: ILL. 5. HOUSE OF THE GOVERNOR OF TE-WA

Hillers took a distant photograph of this three story house block in Tewa during October 1872, and made three closer images, one with a young Hopi woman seated in the middle of the plaza.
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (5))
Hillers took an identical picture of Mishongnovi and Shipaulovi (in the distance) in 1879 or 1881. In the photograph taken in 1876, two dozen Hopis are visible on the rooftops. In the later image, no one is visible except James Stevenson, Maj. John Wesley Powell’s field director in the Southwest. Stevenson is standing midway between the camera and the village.

(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (7))
ILL. 8. HOUSE OF THE GOVERNOR OF SHI-PAU-I-LUV-VI
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (8))

ILL. 9. THE ENTRANCE-COVERED WAY TO SHI-PAU-I-LUV-VI
(Photograph courtesy Bibliothèque nationale de France/Société de géographie, Paris, Sg Wf 5 (9))
Appendix. "In the Land of the Moki"  

Under the burning sun of New Mexico and Arizona exists a race interesting alike to the ethnologist or the ordinary but intelligent observer. Perched high up on the jagged, wind beaten mesas which are so prominent a feature of their country, or snuggling in the baked valleys by the side of sluggish and shallow water courses or near never failing springs, they live their uneventful, unobtrusive lives. They are born, they live, they die where for countless years before them their ancestors lived and died, and they cling with unyielding pertinacity to these rocks and plains, made ever memorable to them by the traditions of their forefathers. Such are the cliff dwellers, using the word in a descriptive sense only.

There are Indians and Indians, and the mild and peaceful Pueblo of the southwest is a species strongly differentiated from the genus Indian in general. To one familiar with the life, customs and physique of the plains or mountain Indian, the staid, inoffensive, semi-civilized and town dwelling Pueblo, seems a strange interjection among the wild, roving Indian nations.

Among the many Pueblo communities, there are two which stand out for obvious reasons, as especially conspicuous. These are the Zuni of New Mexico and the Moki of Arizona. The former have always been much easier to access than the latter, and have been pretty thoroughly known for many years through the researches of various individuals, particularly [Frank Hamilton] Cushing, who, to all intents and purposes, became one of them and for several years (1879–1884) lived with them.

The latter, while much easier to reach since the railroad systems of the southwest have been elaborated, are still rather remote from main traveled routes and are much less known to us than their friends and brothers the Zuni.

In the winter of 1874 and 1875 (1876), long before there was a railroad within hundreds of miles of them, with one companion I left the nation’s capital bound for the Moki villages. By rail and stage we safely reached Santa Fe. Here we hired a cook and two teamsters and their outfits, and journeyed 200 miles farther west to Fort Wingate.

Discharging our teamsters there, the remaining three toiled on the rest of the way, a journey of a week’s duration, with two heavily loaded army wagons provided by the government. The object of this trip was trade and barter, we obtaining a fine collection of wares and pottery of all sorts, food, articles of domestic and agricultural use, samples of wearing apparel, etc., for the Centennial Exposition, and giving in return many things that were useful and then, in some cases, almost unknown to the Indians. We lived among these people for three weeks, a very busy set of men. This visit was
supplemented by another made some years later, when, with a small party, I revisited the Moki, going in from the south on horseback and with a pack train, and remaining in the neighborhood several days.  

The agency of the Mokis was near some springs at the head of a small canon [sic], now known as Keam’s Canon [sic], and the nearest Indian towns were fifteen miles distant.  

We were met on our arrival at the agency by a large deputation of Mokis, who tethered their burros round about and remained for the night. We had little sleep, for the braying of the donkeys made the night simply hideous.

In order to accomplish our object in journeying thither it was necessary to place ourselves in immediate contact with the Indians, and that meant to transport our merchandise into the very towns themselves. As will be seen, this was no easy task. It was also important not to lose any time, for at the best delays would come, and so the morning after we reached the agency we hitched in the mules and started for the cliff homes of our dusky friends, escorted by the detachment that had come to welcome us to their domiciles.

As we started from the agency there were seven of us exclusive of the Mokis. Jack [Hillers] and myself from the east, our cook from Santa Fe, the two army teamsters, an assistant who joined us at Fort Defiance, and the trader at the agency, [William] Billy Keam, who went with us as interpreter. The latter spoke the Navajo and Moki languages fluently, and he and his brother [Thomas Varker Keam] at Fort Defiance, 75 miles eastward, both possessed great influence among all the Indians of the region, and he was therefore an invaluable man to us.

Our route for the first few miles followed the devious course of the canon [sic] to the west. While the canon [sic] was a shallow one, its walls were sufficiently high to shut off all outlook except straight ahead as we wound down its funnel-like length. When we arrived at the mouth an extended view opened before us. The abrupt cliffs of the bed of rock through which the canon [sic] has cut its way extended in sinuous profile far to the north and south, bounding a wide and nearly level plain which stretched to the south beyond the ability of the eye to follow, and to the north for more than half a score of miles. Gazing straight ahead to the west across a space of seven or eight miles the view was terminated by another and higher line of cliffs, which in a direction a little north of west ended in a clean cut, commanding salient. The top of this salient and the cliffs for a distance back of it were of an irregular, notched appearance and these notches, we were informed, indicated the nearest villages of the Moki.

When we had progressed midway into the plain and reached a somewhat broken stretch of ground, we saw the Mokis, who were in advance of us, halt
and dismount from their burros. The noon hour had arrived and luncheon was to be served. We likewise halted and the cook set about preparing our dinner.

While it was cooking I had an opportunity of investigating the Moki bill of fare. It was a cold lunch and seemed to consist almost wholly of their corn meal bread, called “wyavi” or “pi-ki.” It bore a curious appearance, being made in rolls or sticks of twelve to fifteen inches in length and perhaps an inch or more in diameter. Each roll was made of several thin layers wrapped around each other and was very brittle. Some rolls were yellow, some blue, others white, and still others red. I ate some of it, and, while it tasted very flat, yet it was not repulsive. It would require a cultivated taste to relish it. I afterwards witnessed the process of making it. The Mokis raise corn of the four—or even more—colors indicated, red, white, blue, and yellow and one can see it hanging from the rafters of their houses in heavy bunches and festoons, and stored in interior store rooms, in large quantities. A famine in this region once upon a time, so tradition runs, taught them to keep on hand a two years’ supply of corn and other food, to guard against future failures of crops.

Much of the corn is ground into meal, and when “pi-ki” is to be made, the meal is converted into a very thin mush. In the fire places a long, narrow, flat stone is placed upon stone supports at each end, and, with fire underneath, is thoroughly heated. A woman then scoops up with the hand a handful of mush and smears it lengthwise over the stone and it is cooked in an instant into long, thin, crisp, wafer-like sheets. A number of sheets are then rolled together, as the cooking progresses, and the pi-ki is ready to be eaten.

Our meal ended, we resumed our progress, and in the latter part of the afternoon we drew near to the cliffs. They loomed up 600 to 800 feet above the valley, in most places nearly, in many places quite, vertical. The ground over which we advanced grew more sandy and changed to an up grade as well, compelling frequent halts to rest the mules. The three villages before us now stood out plainly in silhouette against the sky and easily revealed the safety afforded their people from their enemies in cases of friction with neighboring tribes. It can hardly be doubted that this fact was the important reason that caused them to be so placed. Their farms and orchards are in the valley below; the springs which form their major supply of water burst forth at the base of the mesa; the fuel which supplies their fires is ten or fifteen miles away, and after being brought across the valley has to be carried to the top of the precipital mesa on the backs of the donkeys or men. What argument of convenience or of political economy, even of an Indian, existed for building their habitations on these rocky heights, when, beside the foregoing, constituting good reasons for not doing so, the stone necessary for building purposes
lay scattered about, ready to their hands, at the base of the palisades? What reason, indeed, save the all important one to them in the centuries gone by of practically absolute impregnability against the enemies with whom they might be forced to contend? A small body of determined men fighting for life, families and homes could hold those heights against a large body of besiegers armed with bows and arrows, and inflict great damage upon them.

We soon reached the spot chosen for bivouac, and, unhitching the mules, placed them in charge of a Moki herder and saw them go forth to graze until nightfall. The eastern wall of the mesa towered imposingly above us 600 feet or more. Near the end of the mesa the walls fell a sheer precipice for about one-half the distance, the remainder being a more or less abrupt talus of sand plentifully mixed with sprawls of rock fallen from the cliff. All along this talus were rudely constructed stone corrals into which the Mokis drove their sheep every night. These corrals were but loosely built stone walls two and three feet high, square or rectangular in shape, of various sizes, conforming to the nature of the ground and with the entrances roughly closed at night. Built on sloping ground they answered well the purpose of confining sheep that had little inclination to jump these walls to roam at large on the sandy wastes below them and possibly fall prey to prowling coyotes.

At other places the cliff wall led down abruptly into huge rounded billows of sand, very difficult to walk over. At many sheltered angles small springs issued forth, and at these points there were numerous peach trees. This fruit the Mokis used both in a green and dried state, and a few pounds of the latter made a welcome addition to our meager bill of fare. At various points trails were visible leading to the villages above. Many of them were used almost exclusively by the people, being very steep and not infrequently having steps cut out of the solid rock, and again, having steps made from loose rocks and built into the trail at such places as were necessary.

Before nightfall Keam and I had ascended to the top of the mesa and completed arrangements to occupy for our trading post a room in the central one of the three towns, that had been used as a Moki school room. Another room across the way on the edge of the cliff was given us for our dining room and kitchen. We sent up our beds and a quantity of food supplies and cooking utensils by the Mokis and left the two teamsters to guard the wagons for the night.

We were up betimes the next morning for there was much to do. Breakfast being eaten, by the aid of the interpreter we selected two or three men to superintend the task of removal of our supplies from the wagons to the mesa. These bargained for us with a sufficient number of Indians to effect a rapid accomplishment of this operation.
Leaving George, the cook, on the mesa, the rest of us hastened below and soon had the satisfaction of seeing many Mokis loaded heavily with impedimenta, climbing the trails like so many goats. Their method of carriage was by means of lariats of buckskin, rawhide, or hair, carried around the forehead, the load being borne across the back. This left the hands free for climbing. The whole force of strain came upon the forehead, which was usually protected by some softer substance placed underneath the lariat. Among other articles we had a 500 pound bale of cotton, brought from St. Louis, which we turned over to two able-bodied fellows. They cut it in two, and, heavy and bulky as it was even then, they managed to transport it to the mesa, but it was a laborious operation. Jack, my companion, had a large amount of photographic apparatus which he would not permit to pass from under his watchful eye. His entire time was personally devoted to seeing that his cameras, glass plates and chemicals—there were no dry plates then—were safely housed on the heights above. As soon as we had the Indians fairly started on the way, leaving one person to attend to the shipment below, Keam and I hastened above to receive and arrange the goods in the trading room. This room was on the ground floor and was rectangular in shape. In one corner of the front end was a fire place and the rear end was lighted by two windows. There was also at this end a dais, or platform, about one foot high extending across the room. At this point we arranged our merchandise, making a counter in front of the platform and shelves against the rear wall, from the packing boxes we had brought along. At the close of a busy day everything was arranged for trading to begin. Our purpose in coming was now well understood by all the people and the character of our wares also known.

To have our prospective collection of any value it was necessary to have it as thoroughly arranged and classified as time and circumstances would allow. To this end we engaged two or three of the more intelligent Mokis, who had proven themselves to be efficient helpers, as assistants. Two of these, Nah-hi, or Nah-hee, a man of mixed Moki and Navaho extraction, and Louise [Louse], as the second one was called in English, were especially serviceable. The latter particularly, a small, bright-eyed, nervous man with three brass rings pendant from his ears, entered into the spirit of the occasion with great vim. His enunciation was very clear and his assistance in getting at the exact pronunciation, accent, and inflection of the Indian names of things was invaluable. I became much attached to this little fellow in the days that followed.

It was determined that John should sleep below, that night, near the wagons, and on the following day we sent them back to the agency to remain there until needed. John was the source of great wonder to the Mokis.
seemed to be, if not the first Negro, among the first that they had ever seen, and he was surrounded by a crowd of sight-seers until it became a nuisance. Upon the first or second day of our arrival, while he and Keam and I were standing together, several Indians, including a bright, buxom squaw, were gazing at and talking about him. The squaw finally asked if he was black all over, or if only his face and hands were black. Our response evidently did not satisfy her doubts, for, after a few seconds, she calmly suggested that John reduce himself to a state of nudity for her inspection. This was too much for John’s modesty and he emphatically and peremptorily declined to gratify her curiosity.

The Mokis Pueblos were known in early Spanish chronicles as the province of Tusayan and they consisted then, as now, of seven villages, perhaps not, however, those of the present day. On the first mesa there are now the towns of Walpi, occupying the extreme end of the mesa, Sichumnavi [Sichuomovi], some 300 yards to the north, and Tewa, perhaps 200 yards beyond the latter. The surface of the mesa at this point is of level rock, and, although the three villages were separated by considerable intervals, it is not enough to prevent unrestricted and amicable intercourse between them.

The mesa being wider at the points where Sichumnavi and Tewa are located, these pueblos occupy much more ground than does Walpi, have wider streets and courts, and the houses are, with rare exceptions, only two stories high. Walpi is by far the most picturesque and interesting of the three, or even of the seven, towns, being located at the extreme limit of the salient where the walls are narrowed to a point, and the rocks break away in a confused mass with the upper portion a vertical cliff. The narrowing of the mesa necessitated the building of the town in a more compact manner than were the others, and there are many houses that rise to four stories above the level of the mesa. Massed together as it is, filling the point from cliff to cliff and rising so high in the air, it makes a most effective and impressive picture view from whatever point one sees it. The houses are quite well built from stone, cemented with mud, or adobe, and the surface of the mesa, being of solid rock, furnished an everlasting foundation. The walls are two feet or more thick and the stone used of many sizes. The exterior of many of the houses is mud plastered and the interiors are all so finished. Most of the houses in Sichumnavi and Tewa have doors on the ground floor, while the larger number in Walpi are entered by ladders leading to porches on the second story. The walls themselves, being very thick are generally terraced into convenient steps and utilized in lieu of ladders. The rafters and joists are of round pine stripped of the bark. In the floors and roofs these are overlaid with cedar boughs, these again by yucca fibre or other straw-like material,
and, finally they are covered by a thick layer of adobe mud. The living rooms have generous fire places with chimneys, the latter being ornamentally topped off with discarded pottery kettles having the bottoms knocked out. In Walpi, especially, a great many of the houses are built together in such a fashion that the outsider can seldom discern any division lines. Whether this tends to produce disputes I do not know, but the presumption is against it, as there is much of such building in all the pueblos.

The name Moki is not the original Indian name of these people, but, nevertheless, it seems to be a very old name. The story was told [to] me that once upon a time the small pox raged among them with such violence and the deaths were so many and frequent that no attempt at burial was made, but that the dead bodies were simply tumbled over the cliffs to the valley below. From this harvest of death they came to be called by the other tribes, the Moki, or people of death, as it was intended to signify. It is evident that this scourge has visited them more than once, for there were numbers whose faces bore evidences of having passed through the affliction, and their ages gave token that it was of comparative recent time. The name by which these Indians are known among themselves is Hopi, which seems to be a contraction of a much longer word.68

Our success in obtaining a collection from these towns was highly gratifying. When the time came to leave and proceed to the second mesa, as the point where the next three pueblos were located was usually termed, we were loath to go. Jack was not through with his photographic work and so he and the cook remained behind, while Keam and myself, with Jock, our other teamster, and his wagon, went on our way. John being fully engaged in transporting our collection to the agency, and carefully storing it there until our return.69

We took with us, to the other towns, Nah-hi and a chief from Tewa named Molasseh and dubbed in English, Molasses.70 The people of these villages, while entirely friendly, were less visited by whites and were, as a result, more reserved and shy in their intercourse with them than were those of the first mesa. We, therefore, felt it to be a wise measure to take with us two men of standing of their own sort to bespeak for us a friendly welcome. In this we were successful, but were unable to add greatly to our collection.

The appearance of this mesa was very different from the other. Instead of the great extent of vertical, angular palisades, the walls of rocks were buttressed by rounded banks of lead-colored clay, washed and ravined by the rains. This clay talus was from 150 to 300 feet high and modified the otherwise lofty and abrupt appearance of the promontory. Gazed at, however, from the south, the appearance of the mesa was striking in the extreme, as the high walls,
crowned with the towns rising still higher, struck the beholder with tremen-
dous effect. Some distance back from the culminating point of the mesa was
the village of Mishongnavi [Mishongnovi], while a half mile back of this,
upon a bold, vertical cliff rising high above Mishongnavi stood Shipoulavi
[Shipaulovi]. The latter village looked for all the world like an old castellated
ruin, and its people might well consider themselves safe from all intrusion
in their formidable and rockbound eyrie. Over to the southeast Shimopavi
[Shongopavi] could be plainly seen at a distance of two or three miles. Well
out on the edge of the bluff it looked, and was, isolated and forlorn.

Our intercourse here was almost entirely confined to the people of
Mishongnavi. We did not visit either Shipoulavi or Shimopavi, but some
of the dwellers in the former pueblo, however, came to see us. We found
here a number of albinos, their pink eyes and white tow heads contrasting
strangely with their more sable neighbors. The head chief, or governor, of
Mishongnavi was a one-eyed man who was out on the plain with his sheep
and goats when we arrived. At sundown he returned and we made our call
upon him soon after. He received us pleasantly, but was decidedly taciturn
and undemonstrative. We stood by while he filled his stomach with Moki
viands. His squaw brought out into the court like porch, a large, dirty, black
kettle of pottery fresh from the fire and filled with a soup or mixture, which
had in it quantities of corn, mutton and other ingredients not familiar to us.
Quickly squatting down on his hams, the old chief plunged his right hand into
the mess and scooped up a handful after handful of the stew, and, conveying
it thus to his mouth, sucked it down. In this primitive manner, unfettered by
the annoyances of the so-called conveniences of civilization did this copper-
colored old heathen dispatch his meal. By his aid we were enabled to obtain
comfortable quarters while we remained for a few days with his people.

The women and children of this mesa were mildly and amusingly fearful
of us. There was an entire absence of that feeling of unconcern as to our
presence and freedom of movement noticeable among the people of the
other mesa. The young girls, especially from eight to ten years of age, were
very wary. When unnoticed by us they would congregate in groups on the
housetops and furtively watch us, but the instant we turned our eyes upward
on them away they would scamper, pell mell, as wild as young deer, or drop
down behind the parapets completely hidden in an instant. These young
damsels were extremely interesting. The average Moki woman is, perhaps
invariable, not large nor obese. Short in stature, plump and round of form,
of pleasing countenance, with beautiful jet black hair banged at the eyes,
when clad in tasteful and colored blanketry, she presents a picture fair in-
deed to see. The unmarried contingent were even, as might be expected,
more interesting, and more decidedly picturesque. The manner of wearing the hair distinguishes the married woman from the virgin. The latter wears her black tresses gracefully done up in a large round coil several inches in diameter over each ear and projecting out from the head somewhat. The effect is delightfully novel, and, coupled with the fresh and youthful appearance of the girls, makes them special objects of interest. They were in those days, termed, in current slang, "sidewheelers," from their mode of dressing the hair.

By the time Jack had finished photographing here, it was necessary to prepare for our homeward trip. It would require at least a month to reach the railroad and [two lines of text lost] we left these interesting people albeit our faces were turned toward home. We had been warmly received and hospitably treated, in a crude, unconventional way it is true, but we had been given the "freedom of their cities," our barter had been successful, and what more could we ask? Reluctantly we loaded our last wagon, and, with many buenos and lolamias, turned our faces eastward. Packing our collection at the agency as carefully as was possible we left our friends there to the seclusion which their situation granted in the little canon [sic], and began our long return journey.73

In my subsequent visit to these people, some years later, they received me again with true hospitality and I found that they remembered me well and as a friend. Even the young men, youthful lads at my first visit, came to me and shook hands warmly and brought me presents of fruits.

Notes


In 1871 John K. "Jack" Hillers joined John Wesley Powell’s Colorado River expedition as an oarsman. He replaced photographer Elias O. Beaman as the expedition’s

Wheeler served as a topographer with Powell’s Geographical and Geological Survey of the Territories from 1874 to 1878. In addition to writing “In the Land of the Moki,” Wheeler was a publicist for the Northern Pacific Railway and author of the railway’s Wonderland series of travel books from 1893 to 1906. He also published works on George A. Custer and the Lewis and Clark Expedition.


15. Asst. Sect. Spencer F. Baird to Comr. John Q. Smith, 3 February 1876 (with Powell’s draft recommendations), Letters Received 1876–1878, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA. With pressure mounting for an exhibit of “living representatives,” Powell and Baird worked together to develop a more detailed list of “points” (requirements) in a “circular to be written and not printed:” “The Indians . . . [are] to be cleanly, speak English, of influence with tribe (chiefs if possible), temperate & good disposition. Tribes so marked to bring horses & equipment, all implements of chase or hunt, war and domestic economy, &c, food, furs, &c, domestic animals (dogs), skins for dressing, evidences of system of worship, tents, lodges, or wickee-ups, boats, canoes, &c (for Indians on sea coast) . . . Especial attention must be given to personal appearance.” Lists and draft circular attached to John W. Powell to Asst. Sect. Spencer F. Baird, 6 March 1876, pp. 373–79, folder 2, box 2, Correspondence, 1875–1877, International Exhibition, 1873–1878, 1882 (Centennial Exhibition of 1876,

17. Sect. of the Smithsonian Institution Joseph Henry to Sect. of the Int. Columbus Delano, 8 December 1874, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA. Smithsonian Institution secretary Joseph Henry’s letter was issued as a circular under Sect. of the Int. Columbus Delano’s name on 15 January 1875.

18. Otis T. Mason, Ethnological Directions Relative to the Indian Tribes of the United States (Washington, D.C.: GPO, 1875). This pamphlet was issued on 3 April 1875.


22. Mounting the exhibit for the Indian Bureau was not formalized in writing; it was a “tacit understanding.” Asst. Sect. Spencer F. Baird to Cmr. of Ind. Affs. John Q. Smith, 27 April 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA.

23. Emil Bessels was appointed special commissioner to the Smithsonian Institution on 22 May 1875, but en route to Alaska, the USS Saranac sank in the Seymour Narrows, British Columbia, and Besels lost his equipment and supplies on board the ship. Funds initially allocated to him were redistributed. Swan was appointed on 2 April 1875 with an initial allocation of three thousand dollars for collections to be made in Washington and British Columbia. For a detailed account of Swan’s contributions to the Centennial Exhibition, see Cole, Captured Heritage, 22–33. Paul Schumacher was appointed Smithsonian Institution special commissioner on 11 April 1875. Schumacher’s work was reported in “Researches in the Kjökkenmöddings [kitchen-middens] and Graves of a Former Population of the Coast of Oregon,” Bulletin of the United States Geological and Geographical Survey of the Territories 3, no. 1 (Washington, D.C.: GPO, 1877): 26–37; and “Researches in the Kjökkenmöddings and Graves of


25. Asst. Sect. Spencer F. Baird to Comr. of Ind. Afs. Edward P. Smith, 14 May 1875, and Acting Sect. of the Int. Benjamin R. Cohen to Comr. of Ind. Afs. Edward P. Smith, 22 May 1875, r. 53, Centennial Exhibition, 1875–1876, M234A, RG 75, NA. On 1 May 1875, three weeks before his appointment as a special commissioner, Powell sent Hillers to Indian Territory to make photographs of members of “Civilized Tribes” and various Plains groups, notably Pawnees, Arapahos, and Cheyennes, “to be put on exhibition at the Centennial.” John K. Hillers to Richard Hillers, n.d. [1875], in “Photographed All the Best Scenery”: Jack Hillers’s Diary of the Powell Expeditions, 1871–1875, ed. Don D. Fowler, University of Utah Publications in the American
West, vol. 9 (Salt Lake City: University of Utah Press, 1972), 168. Hillers's work was not funded as part of the Indian Bureau exhibit but was displayed in an area of the Government Building near the space assigned to the Smithsonian Institution. See Perkes, The Display of the United States Government at the Great Exhibition, 114; and Asst. Sect. Spencer F. Baird to Comr. of Ind. Affs. John Q. Smith, 18 May 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA.

26. Vouchers 1–3, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 4 January 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA.


Exhibition, 1875–1876, M234A, RG 75, NA.

32. Vouchers 1, 3, 4, 5, and 9, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA. Currently, sparse information exists regarding specific equipment and supplies used by expeditionary photographers during the nineteenth century. Vouchers for Hillers’s purchases, therefore, are transcribed here in full. With the possible exception of a stereographic camera that he took with him to the Southwest, Hillers apparently took the opportunity to acquire a completely new field outfit. He bought from William B. Holmes in New York City, “[Six] lbs Nitrate Silver [in] 6 bottles; 6 lbs Anderson’s Port[able] Collodion; 4 lbs Anthony’s Instan[t] Collodion; 4 lbs Mardocks Ex[tra] rapid Collodion; 1 lb Cyan[ide] Potassium & bottle; 1 Sulph[ate] Potassium & bottle; 3½ lbs Sulph[ate] Ether Conc[entrade] & bottle; ½ Gal Atwood Alcohol & bottle; 20 Lights 20 x 24 Double Thick Neg. Glass selected; 75 Lights 8 x 10 Double Thick Neg. Glass selected; 1 20 x 24 Single Swing Camera Box Cone Bellows & Holders to 8 x 10 ($10); 1 Outside Box for the same; 1 Tripod Camera Stand for 20 x 24 [and] Box; 1 21 x 25 Rapid Rect[angular] Dallinger Lens #24.171 ($288); 2 Wood Boxes for 20 x 24 Glass; 2 Wood Boxes for 8 x 10; 2 Wood Boxes for 5 x 8; 2 8 x 10 Fronts for Venus Camera Box; 1 Slide for 8 x 20 Shield Venus box; 1 23 x 28 J. R. Covered Bath to order; 1 Box for [same]; 1 J. R. Dipper #10 for [same]; 3 qts Flint Varnish [in] 3 bottles; 1 qt William B. Holmes] Lustrons [varnish] & bottle; 10 lbs Sulph[ate] Iron bulk; 2 #3 J. R. Funnels; 1 5 inch Camels Hair Blender; 1 Extra Leg to Tripod Stand; 8 yds Paper muslin Orange.” Voucher 1, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876. Hillers secured “22½ yds brown Jeans for dark tent” from William R. Riley in Washington, D.C. Voucher 3, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876. The Gossamer Rubber Company in Boston, Massachusetts, provided Hillers with “10 yds gossamer rubber cloth for dark tent.” Voucher 4, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876. Hillers purchased “5 yds Blk Velveteen” at Behrenel Bros. in Washington, D.C. Voucher 5, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876. And finally Francis Miller furnished “1 Lot Tins (for photographs).” Voucher 9, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876. For information on the collodion process, see William Crawford, The Keepers of Light: A History and Working Guide to Early Photographic Processes (Dobbs Ferry, N.Y.: Morgan and Morgan, 1979), 42–43.

33. The bale of cotton was sent to Santa Fe, New Mexico. Voucher 4, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 4 January 1876.


36. Vouchers 1–11, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 25 January 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA; and John K. Hillers to
John W. Powell, 16 January 1876, r. 4, M156, RG 57, NA. Las Animas City was established in southeastern Colorado in 1869. In 1873 the Kansas Pacific Railroad built a branch line that ran on the south side of the Arkansas River, west of Las Animas City. West Las Animas, the new town that emerged around the branch line, served as the temporary eastern terminus of the Santa Fe Trail. The Atchison, Topeka and Santa Fe Railroad reached the boomtown of West Las Animas in 1875. Las Animas City soon became a ghost town, however, and by 1886, West Las Animas became known as Las Animas. Charles W. Bowman, “The History of Bent County,” in History of Arkansas Valley, Colorado (Chicago, Ill.: O. L. Baskin and Co., 1881), 825–49, http://www.coloradoplains.com/otero/history/bent881_chapter8.htm.

37. John K. Hillers to John W. Powell, 21 January 1876, r. 4, M156, RG 57, NA.


39. Voucher 2, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 6 March 1876; Voucher 43, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876, r. 54. Centennial Exhibition, 1875–1876, M234A, RG 75, NA; and Vouchers 2–6, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 6 March 1876. Included in the freight was the bale of cotton Powell had shipped from St. Louis, Missouri, to Santa Fe.

40. John V. Lauderdale, diary entry, 22 February 1876, 24 February 1876, r. 7, folder 184, box 3–folder 219, box 6, vol. 5 (1873–1877), Scrapbooks, Series 1, John Vance Lauderdale Papers, WA MSS S-1317, Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library, Yale University, New Haven, Connecticut.

41. Vouchers 3–4, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876.

42. Hillers’s glass negatives of the 8 x 10-inch photographs and stereographs are housed in the National Anthropological Archives at the Smithsonian Institution. For more on these glass negatives, see John K. Hillers, View of Southern Passageway and Adobe House Clusters; Man in Blanket near Ladder (1879), NAA Inv. 06313400, BAE GN 08531B 06313400; Hillers, View of the Dance Rock; Groups of People on Adobe House Clusters on the Right, Bowl and Metate Nearby, (1879), NAA Inv. 06314300, BAE GN 08534A5 06314300; Hillers, View of Dance Rock; Group of Children in Blankets on Steps of Adobe House Cluster Nearby (1879), NAA Inv. 06314400, BAE GN 08534A4 06314400; and Hillers, Inner Courtyard with One Adobe and Stone Wall; Man in Blanket on Ladder, Man in Military Uniform in Courtyard (1879), NAA Inv. 06317700.
BAE GN 01858 0637700, Library of Congress Collection of American Indian Photographs, 1860s–1930s, National Anthropological Archives, Smithsonian Institution, Washington, D.C. Powell undoubtedly instructed Hillers to make portraits of Hopi men and women; none of these images, however, survived. The emulsion on all the glass negatives of Hillers’s “views” made in 1876, exhibit varying degrees of disintegration.

43. Voucher 4, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876.


45. Vouchers 13 and 15, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876.

46. Vouchers 16–18, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876.

47. Vouchers 27–30, 38–39, and 43, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876. In the year following the Centennial Exhibition, the nine large images of Hopi were sent to the Société de Géographie in Paris, France, and are now located in the Bibliothèque nationale de France. Hillers’s No. 2, Dancer’s Rock, Wolpi was reproduced in Brunet and Griffith, Images of the West, 111. Three additional images of Walpi and one of Shipaulovi appear in Olivier Loiseaux, Trésors photographiques de la Société de géographie (Paris: Bibliothèque nationale de France/Éditions Glenat, 2006), 28–31.


51. Vouchers 40 and 41, John W. Powell to Comr. of Ind. Affs. John Q. Smith, 16 May 1876. Hillers and Wheeler were reimbursed for all travel expenses, including lodging and meals. Commissioner Smith immediately complained to Baird, “some of the telegrams, viz. Nos. 7, 8, 9, 11, 12, 16 & 17 are of such a character as not to be properly chargeable to the fund allocated Major Powell.” Comr. of Ind. Affs. John Q. Smith to Asst. Sect. Spencer F. Baird, 17 May 1876, r. 54, Centennial Exhibition, 1875–1876, M234A, RG 75, NA; and Asst. Sect. Spencer F. Baird to Comr. of Ind. Affs. John Q. Smith, 18 May 1876. Although Powell published or employed several pictures taken at the Hopi villages in 1876 for promotional purposes, he did not use any of the nine photographs exhibited at the Centennial Exhibition. For an example of Powell’s use of photographs taken in Hopi villages, see the photograph of “Dance Rock” published in Victor Mindeleff, “A Study of Pueblo Architecture in Tusayan and Gihola,” in Eighth Annual Report of the Bureau of Ethnology (Washington, D.C.: GPO, 1891), facing p. 58. The same image is used in the portfolio Ethnographische Illustrationen von Pueblo [sic] Indian Villages in New Mexico & Arizona (ca. 188i), which contains twenty photographs taken by Hillers in 1876 and from 1879 to 1881. At one time on consignment with the Andrew Smith Gallery in Santa Fe, this portfolio is now in a private collection.

52. Perkes, The Display of the United States Government, 114, 115; and J. S. Ingram, The Centennial Exhibition Described and Illustrated, being a Concise and Graphic
Description of this Grand Enterprise, Commemorative of the First Centenary of American Independence (Philadelphia, Pa.: Hubbard Brothers, 1876), 149–50.


54. Brunet, "‘With the Compliments of F. V. Hayden, Geologist of the United States,’” 29. Historian François Brunet suggests there are "(at least) two political readings of the photographic corpus of exploration." The first consists of the idea that "the visual communication of the surveys, in keeping with the expansionist logic that underlay them, served to stimulate the conquest and development of the West." The second "level of propaganda" is linked to the intergovernmental competition that prevailed throughout the period of the Great Surveys, obvious in the "American explorers’ unprecedented investment in photography" as they responded to "the constant need for self-promotion in the struggle for influence between the Departments of the Interior and War." Ibid., 25, 26.

55. The introductory paragraphs and concluding recollections appear to have been written later, perhaps when Wheeler was preparing the manuscript for publication, between 1903 and 1906.

56. "From the south" suggests this later visit took place after the railroad reached Holbrook, Arizona, in 1881.


58. The "assistant" was apparently William B. Truax, U.S. Indian agent to the Hopis.


60. The First Mesa villages were Walpi, Sichumovi, and the Tewa-speaking Hano.

61. Piki (or piiki) is a thin wafer bread usually made from blue corn flour. In its flat form, either folded or rolled, nakwayviki is given in fulfillment of ceremonial obligations.

62. The Hopi villages on First and Second mesas are thought to have moved to their present locations following the Pueblo Revolt of 1680 and the subsequent re-conquest of New Mexico in the 1690s.

63. In the fall of 1869, Capt. Appleton D. Palmer, U.S. special agent for the Moqui Pueblo Indians, visited First Mesa. He was accompanied by William H. H. Metzger, farmer, teacher, and Spanish interpreter, who lived on First Mesa for several years. Metzger constructed a “Government House” on the edge of the mesa, and Hillers and Wheeler undoubtedly used this building as well as an unoccupied room, the “Moqui school room,” a 15 x 28-foot stone structure in Sichumovi.

64. The dry plate, which could be factory produced, was introduced in 1871. On 22 November 1872, Hillers, with Walter C. Powell, met William Bell, a photographer with
Lt. George M. Wheeler’s U.S. Geographical Survey West of the One Hundredth Meridian. Powell noted, “Bell showed us how to develop dry plates; do not like the process as well as wet. Showed us his views; there is too much bare glass to make them first-class.” Kelly, “Journal of W. C. Powell,” 472–73.

65. Naghe-vema lived in Sichumovi. His mother, grandmother, and great-grandmother were all married to Navajos. According to Agent William R. Mateer, Naghe-vema was appointed a “chief” of Sichumovi by Vincent Colyer, U.S. special commissioner on the Indian tribes, in 1872 (but probably 1869). The federal census of 1880 gives Naghe-vema’s age as thirty-six. A more accurate local census in 1885, lists him as fifty years old. He was frequently employed at the agency as an interpreter and mail carrier, among others. Yah-te (Atu, Ahtee, Ya-tah in other sources) was nicknamed “Louse,” not “Louise” (the typographer probably “corrected” Wheeler’s spelling). Agent Mateer appointed him a “chief” in Walpi in 1878. In 1880 Yah-te’s age was given as thirty, and in 1885, he was listed as thirty-eight years old. William R. Mateer to Comr. of Ind. Afs. Ezra A. Hayt, 24 August 1878, Correspondence, 1875–1883, MSS 4,44, Moqui Agency Records, U.S. Office of Indian Affairs, National Archives, Laguna Niguel, California; Apache County, Arizona, Federal Census, 1880, r. 450, r. 431, Tenth Census of the United States, U.S. Census Office, Arizona Historical Foundation Microfilm Collection, 1812–1980, FF FMF 1, University of Arizona Library, Tucson [hereafter Apache County, Arizona, Federal Census, 1880]; and Moqui Pueblo, Arizona, Local Census, 1885, r. 272, microfilm (Washington, D.C.: National Archives and Record Service, 1967), Indian Census Rolls, 1885–1940, microcopy 595, National Archives Microfilm Publications, Records of the Bureau of Indian Affairs, RG 75, National Archives, Washington, D.C.

66. Military records for Fort Wingate during the period John served have been lost.


68. Most authors in the nineteenth century referred to the Hopi as the Moqui or, earlier, the Moki. The source of Moki or Moqui seems to be Keresan, but what was probably mokwi (referring to Hopi) was transformed through Spanish pronunciation and orthographic conventions into moki, a spoken form offensively resembling the Hopi mo.ki (dies, is dead). Albert H. Schroeder and Ives Goddard, “[Hopi] Synonymy,” in Southwest, ed. Alfonso Ortiz, vol. 9, Handbook of North American Indians, 17 vols., ed. William C. Sturtevant (Washington, D.C.: Smithsonian Institution Press, 1979), 551. The Hopi First Mesa villages experienced smallpox epidemics in 1853 and 1854.

69. Hillers soon went to Second Mesa, where he took several photographs in Mishongnovi village, as Jackson had done the previous summer. Blair, William Henry Jackson’s “The Pioneer Photographer,” 158.
70. The federal census of 1880 lists Me-lee, "Molasses," as a "chief" in Walpi. In 1881 Bourke met "an old man, answering to the English name of Molasses, the head Governor or Mungwee of these three towns." Apache County, Arizona, Federal Census, 1880; and John G. Bourke, The Snake Dance of the Moquis of Arizona, Being a Narrative of a Journey From Santa Fé, New Mexico, to the Villages of the Moqui Indians of Arizona (New York: Charles Scribner, 1884), 109.


72. According to agent William R. Mateer, Tawi-moki, a Tewa born on First Mesa, was appointed chief of Mishongnovi in 1873. His wife was a Navajo sold into Mishongnovi during a famine. The census of 1880 lists his age as thirty-four; the more accurate census of 1885 gives his age as sixty. William R. Mateer to Comr. of Ind. Affs. Ezra A. Hayt, 24 August 1878; Elsie Worthington Clews Parsons, ed., Hopi Journal of Alexander M. Stephen, 2 vols., Columbia University Contributions to Anthropology series, vol. 23 (New York: Columbia University Press, 1936), 1130; and Apache County, Arizona, Federal Census, 1880.

73. Hillers took photographs only in Mishongnovi on Second Mesa.