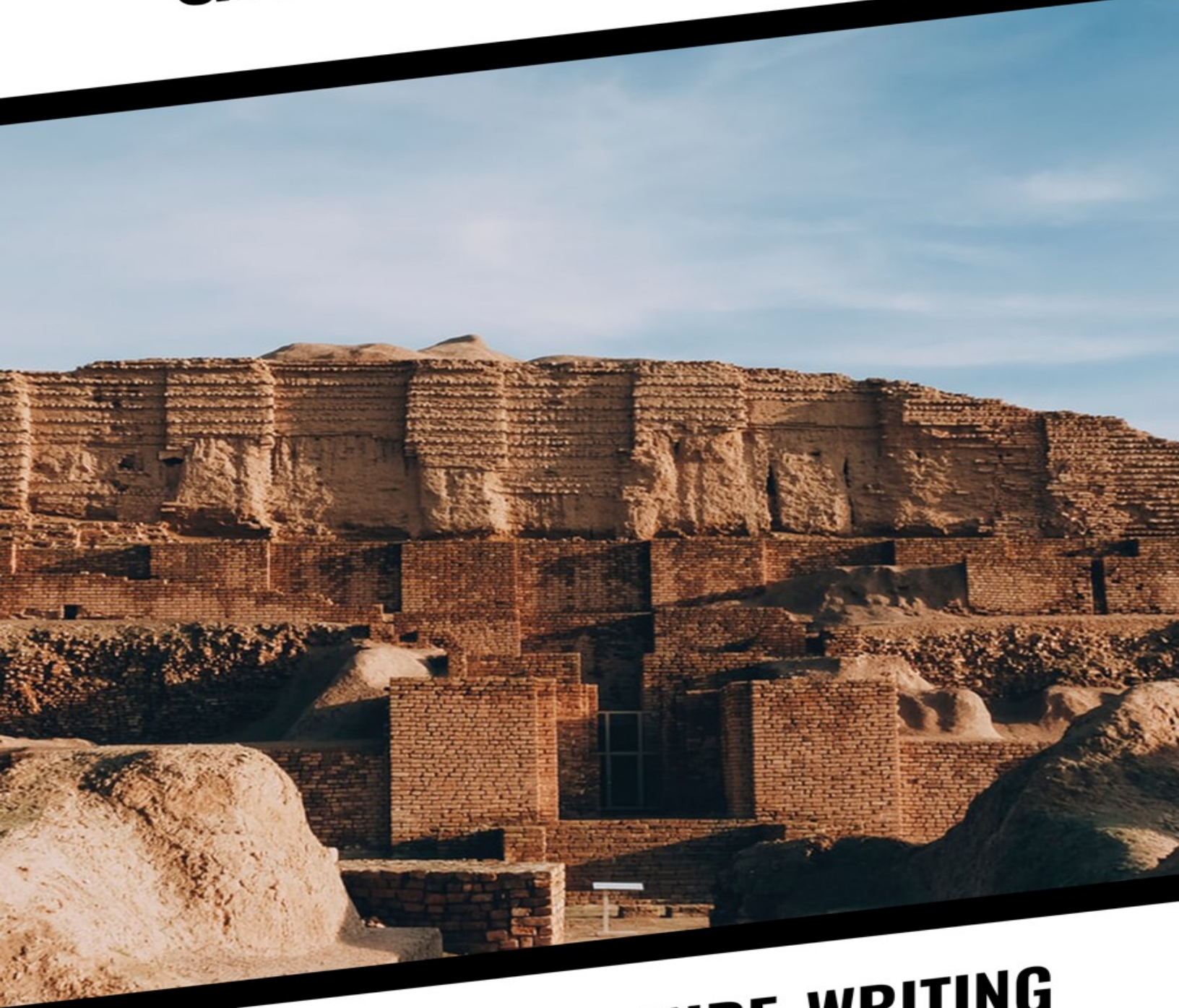




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GARRICK MALLERY



**PICTURE-WRITING
OF THE AMERICAN INDIANS**

Garrick Mallery

Picture-Writing of the American Indians

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INTRODUCTION.

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Research among the North American Indians, in obedience to acts of Congress, was continued during the fiscal year 1888-'89.

The explanation presented in several former annual reports of the general plan upon which the work of the Bureau has been performed renders a detailed repetition superfluous. The lines of investigation which from time to time have appeared to be the most useful or the most pressing have been confided to persons trained in or known to be specially adapted to their pursuit. The results of their labors are presented in the three series of publications of the Bureau which are provided for by law. A brief statement of the work upon which each one of the special students was actively engaged during the fiscal year is furnished below; but it should be noted that this statement does not specify all the studies made or services rendered by them.

The assistance of explorers, writers, and students who are not and may not desire to be officially connected with the Bureau is again invited. Their contributions, whether in suggestions or extended communications, will always be gratefully acknowledged and will receive proper credit. They may be published as Congress will allow, either in the series of annual reports or in monographs or bulletins. Several valuable papers of this class have already been contributed and published.

The report now submitted consists of three principal divisions. The first relates to the publications made during

the fiscal year; the second, to the work prosecuted in the field; the third, to the office work, which chiefly consists of the preparation for publication of the results of field work, with the corrections and additions obtained from exhaustive researches into the literature of the subjects discussed and by correspondence relative to them.

PUBLICATIONS.

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The publications actually issued and distributed during the year were as follows, all octavo:

Bibliography of the Iroquoian Languages, by James C. Pilling; pages i-vi + 1-208. Facsimile reproductions, at pages 44 and 56, of title pages of early publications relating to Indian languages, and, at page 72, of the Cherokee alphabet.

Textile Fabrics of Ancient Peru, by William H. Holmes; pages 1-17, Figs. 1-11.

The Problem of the Ohio Mounds, by Cyrus Thomas; pages 1-54, Figs. 1-8.

FIELD WORK.

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The field work of the year is divided into (1) mound explorations and (2) general field studies, the latter being directed chiefly to archeology, linguistics, and pictography.

MOUND EXPLORATIONS.

WORK OF MR. CYRUS THOMAS.

The work of exploring the mounds of the eastern United States was, as in former years, under the superintendence of Mr. Cyrus Thomas. The efforts of the division were chiefly confined to the examination of material already collected and to the arrangement and preparation for publication of the data on hand. Field work received less attention, therefore, than in previous years, and was mainly directed to such investigations as were necessary to elucidate doubtful points and to the examination and surveys of important works which had not before received adequate attention.

The only assistants to Mr. Thomas whose engagements embraced the entire year were Mr. James D. Middleton and Mr. Henry L. Reynolds. Mr. Gerard Fowke, one of the assistants, ceased his connection with the Bureau at the end of the second month. Mr. John W. Emmert was engaged as a temporary assistant for a few months.

WORK OF MR. GERARD FOWKE.

During the short time in which he remained with the division, Mr. Fowke was engaged in exploring certain mounds in the Sciota valley, Ohio, a field to which Messrs. Squier and Davis had devoted much attention. Its reexamination was for the purpose of investigating certain typical mounds which had not been thoroughly examined by those explorers.

WORK OF MR. J. D. MIDDLETON.

Mr. Middleton was employed from July to the latter part of October in the exploration of mounds and other ancient works in Calhoun county, Illinois, a territory to which special interest attaches because it seems to be on the border line of different archeologic districts. From October until December he was engaged at Washington in preparing plats of Ohio earthworks. During the next month he made resurveys of some of the more important inclosures in Ohio, after which he resumed work in the office at Washington until the latter part of March, when he was sent to Tennessee to examine several mound groups and to determine, so far as possible, the exact locations of the old Cherokee "over-hill towns." The result of the last-mentioned investigation was valuable, as it indicated that each of these "over-hill towns" was, with possibly one unimportant exception, in the locality of a mound group.

WORK OF MR. H. L. REYNOLDS.

Near the close of October Mr. Reynolds, having already examined the inclosures of the northern, eastern, and western sections of the mound region, went to Ohio and West Virginia to study the different types found there, with reference to the chapters he was preparing on the various forms of ancient inclosures in the United States. While thus engaged he explored a large mound connected with one of the typical works in Paint creek valley, obtaining unexpected and important results. The construction of this tumulus was found to be quite different from most of those in the same section examined by Messrs. Squier and Davis.

WORK OF MR. J. W. EMMERT.

Mr. Emmert devoted the few months in which he was employed to the successful exploration of mounds in eastern Tennessee. Some important discoveries were made and additional interesting facts were ascertained in regard to the mounds of that section.

GENERAL FIELD STUDIES.

WORK OF COL. GARRICK MALLERY.

Early in the month of July Col. Garrick Mallery proceeded to Maine, Nova Scotia and New Brunswick to continue investigation into the pictographs of the Abnaki and Micmac Indians, which had been commenced in 1887. He first visited rocks in Maine, on the shore near Machiasport, and on Hog island, in Holmes bay, a part of Machias bay. In both localities pecked petroglyphs were found, accurate copies of which were taken. Some of them had not before been reported. They are probably of Abnaki origin, of either the Penobscot or the Passamaquoddy division, the rocks lying on the line of water communication between the territories of those divisions. From Maine he proceeded to Kejemkoojik lake, on the border of Queens and Annapolis counties, Nova Scotia, and resumed the work of drawing and tracing the large number of petroglyphs found during the previous summer. Perfect copies were obtained of so many of them as to be amply sufficient for study and comparison. These are incised petroglyphs, and were made by Micmacs. The country of the Malecites, on the St. Johns river, New Brunswick, was next visited. No petroglyphs were

discovered, but a considerable amount of information was obtained upon the old system of pictographs on birch bark and its use. Illustrative specimens were gathered, together with myths and legends, which assisted in the elucidation of some of the pictographs observed elsewhere.

WORK OF MR. W. J. HOFFMAN.

Mr. W. J. Hoffman proceeded in July to visit the Red Lake and White Earth Indian reservations in Minnesota. At Red lake he obtained copies of birch bark records pertaining to the Midē'wiwin or Grand Medicine Society of the Ojibwa, an order of shamans professing the power to prophesy, to cure disease, and to confer success in the chase. The introductory portion of the ritual of this society pertains particularly to the Ojibwa cosmogony. At the same place he secured several birch bark records of hunting expeditions, battles with neighboring tribes of Indians, maps, and songs. He also investigated the former and present practice of tattooing, and the Ojibwa works of art in colors, beads, and quills.

At White Earth Reservation two distinct charts of the Grand Medicine Society were obtained, together with full explanations by two of the chief midé or shamans, one of whom was the only fourth-degree priest in either of the reservations. Although a considerable difference between these three charts is apparent, their principles and the general course of the initiation of the candidates are similar. The survival of archaic forms in the charts and ritual indicates a considerable antiquity. Some mnemonic songs were also obtained at this reservation. In addition to the

ritual, secured directly from the priests, in the Ojibwa language, translations of the songs were also recorded, with musical notation. On leaving the above reservations, Mr. Hoffman proceeded to Pipestone, Minnesota, to copy the petroglyphs upon the cliffs of that historic quarry.

He then returned to St. Paul, Minnesota, to search the records of the library of the Minnesota Historical Society for copies of pictographs reported to have been made near La Pointe, Wisconsin. Little information was obtained, although it is known that such pictographs, now nearly obliterated, existed upon conspicuous cliffs and rocks near Lake Superior, at and in the vicinity of Bayfield and Ashland.

Mr. Hoffman afterward made an examination of the "pictured cave," eight miles northeast of La Crosse, Wisconsin, to obtain copies of the characters appearing there. These are rapidly being destroyed by the disintegration of the rock. The colors employed in delineating the various figures were dark red and black. The figures represent human beings, deer, and other forms not now distinguishable.

WORK OF MR. H. W. HENSHAW.

Mr. H. W. Henshaw spent the months of August, September, and October on the Pacific coast, engaged in the collection of vocabularies of several Indian languages, with a view to their study and classification. The Umatilla Reservation in Oregon was first visited with the object of obtaining a comprehensive vocabulary of the Cayuse. Though there are about four hundred of these Indians on the reservation, probably not more than six speak the Cayuse

tongue. The Cayuse have extensively intermarried with the Umatilla, and now speak the language of the latter, or that of the Nez Percé. An excellent Cayuse vocabulary was obtained, and at the same time the opportunity was embraced to secure vocabularies of the Umatilla and the Nez Percé languages. His next objective point was the neighborhood of the San Rafael Mission, Marin county, California, the hope being entertained that some of the Indians formerly gathered at the mission would be found there. He learned that there were no Indians at or near San Rafael, but subsequently found a few on the shores of Tomales bay, to the north. A good vocabulary was collected from one of these, which, as was expected, was subsequently found to be related to the Moquelumnan family of the interior, to the southeast of San Francisco bay. Later the missions of Santa Cruz and Monterey were visited. At these points there still remain a few old Indians who retain a certain command of their own language, though Spanish forms their ordinary means of intercourse. The vocabularies obtained are sufficient to prove, beyond any reasonable doubt, that there are two linguistic families instead of one, as had been formerly supposed, in the country above referred to. A still more important discovery was made by Mr. Henshaw at Monterey, where an old woman was found who succeeded in calling to mind more than one hundred words and short phrases of the Esselen language, formerly spoken near Monterey, but less than forty words of which had been previously known. Near the town of Cayucas, to the south, an aged and blind Indian was visited who was able to add somewhat to the stock of

Esselen words obtained at Monterey, and to give valuable information concerning the original home of that tribe. As a result of the study of this material Mr. Henshaw determines the Esselen to be a distinct linguistic family, a conclusion first drawn by Mr. Curtin from a study of the vocabularies collected by Galiano and Lamanon in the eighteenth century. The territory occupied by the tribe and linguistic family lies coastwise, south of Monterey bay, as far as the Santa Lucia mountains.

WORK OF MR. JAMES MOONEY.

On July 5 Mr. James Mooney started on a second trip to the territory of the Cherokee in North Carolina, returning after an absence of about four months. During this time he made considerable additions to the linguistic material already obtained by him, and was able to demonstrate the former existence of a fourth, and perhaps even of a fifth, well-marked Cherokee dialect in addition to the upper, lower, and middle dialects already known. The invention of a Cherokee syllabary which was adapted to the sounds of the upper dialect has tended to make that dialect universal. A number of myths were collected, together with a large amount of miscellaneous material relating to the Cherokee tribe, and the great tribal game of ball play, with its attendant ceremonies of dancing, conjuring, scratching the bodies of the players, and going to water, was witnessed. A camera was utilized to secure characteristic pictures of the players. Special attention was given to the subject of Indian medicine, theoretic, ceremonial, and therapeutic. The most noted doctors of the tribe were employed as informants,

and nearly five hundred specimens of medicinal and food plants were collected and their Indian names and uses ascertained. The general result of this investigation shows that the medical and botanical knowledge of the Indians has been greatly overrated. A study was made of Cherokee personal names, about five hundred of which were translated, being all the names of Indian origin now remaining in that region. The most important results of Mr. Mooney's investigations were the discovery of a large number of manuscripts containing the sacred formulas of the tribe, written in Cherokee characters by the shamans for their own secret use, and jealously guarded from the knowledge of all but the initiated. The existence of such manuscripts had been ascertained during a visit in 1887, and several of them had been procured. This discovery of genuine aboriginal material, written in an Indian language by shamans for their own use, is believed to be unique in the history of aboriginal investigation, and was only made possible through the invention of the Cherokee syllabary by Sequoia in 1821. Every effort was made by Mr. Mooney to obtain all the existing manuscripts, with the result of securing all of that material which was in the possession of the tribe. The whole number of formulas obtained is about six hundred. They consist of prayers and sacred songs, explanations of ceremonies, directions for medical treatment, and underlying theories. They relate to medicine, love, war, hunting, fishing, self-protection, witchcraft, agriculture, the ball play, and other similar subjects, thus forming a complete exposition of an aboriginal religion as set forth by its priests in their own language.

WORK OF MR. JEREMIAH CURTIN.

Early in October Mr. Jeremiah Curtin left Washington for the Pacific coast. During the remainder of the year he was occupied in Shasta and Humboldt counties, California, in collecting vocabularies and data connected with the Indian system of medicine. This work was continued in different parts of Humboldt and Siskiyou counties until June 30, 1889. Large collections of linguistic and other data were gathered and myths were secured which show that the whole system of medicine of these Indians and the ministrations of remedies originated in and are limited to sorcery practices.

WORK OF MR. A. S. GATSCHET.

The field work of Mr. Albert S. Gatschet during the year was short. It had been ascertained that Mrs. Alice M. Oliver, now in Lynn, Massachusetts, formerly lived on Trespalacios bay, Texas, near the homes of the Karánkawa, and Mr. Gatschet visited Lynn with a view of securing as complete a vocabulary as possible of their extinct language. Mrs. Oliver was able to recall about one hundred and sixty terms of the language, together with some phrases and sentences. She also furnished many valuable details regarding the ethnography of the tribe. Ten days were spent in this work.

WORK OF MR. J. N. B. HEWITT.

Mr. J. N. B. Hewitt was occupied in field work from August 1 to November 8, as follows: From the first of August to September 20 he was on the Tuscarora reserve, in Niagara county, New York, in which locality fifty-five legends and myths were collected. A Penobscot vocabulary was also

obtained here, together with other linguistic material. From September 20 to November 8 Mr. Hewitt visited the Grand River reserve, Canada, where a large amount of text was obtained, together with notes and other linguistic material.

WORK OF MR. VICTOR MINDELEFF.

Mr. Victor Mindeleff left Washington on October 23 for St. John's, Arizona, where he examined the Hubbell collection of ancient pottery and secured a series of photographs and colored drawings of the more important specimens. Thence he went to Zuñi and obtained drawings of interior details of dwellings and other data necessary for the completion of his studies of the architecture of this pueblo. He returned to Washington December 7.

WORK OF MR. A. M. STEPHEN.

Mr. A. M. Stephen continued work among the Tusayan pueblos under the direction of Mr. Victor Mindeleff. He added much to the knowledge of the traditional history of Tusayan, and made an extensive study of the house lore and records of house-building ceremonials. He also reported a full nomenclature of Tusayan architectural terms as applied to the various details of terraced-house construction, with etymologies. He secured from the Navajo much useful information of the ceremonial connected with the construction of their conical lodges or "hogans," supplementing the more purely architectural records of their construction previously collected by Mr. Mindeleff. As opportunity occurred he gathered typical collections of baskets and other textile fabrics illustrative of the

successive stages of their manufacture, including specimens of raw materials and detailed descriptions of the dyes used. These collections are intended to include also the principal patterns in use at the present time, with the Indian explanations of their significance.

OFFICE WORK.

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Major J. W. POWELL, the Director, devoted much time during the year to the preparation of the paper to accompany a map of the linguistic families of America north of Mexico, the scope of which has been alluded to in previous reports. This report and map appear in the Seventh Annual Report of the Bureau.

Mr. HENSHAW was chiefly occupied with the administrative duties of the office, which have been placed in his charge by the Director, and with the completion of the linguistic map.

Col. MALLERY, after his return from the field work elsewhere mentioned, was engaged in the elaboration of the new information obtained and in further continued study of and correspondence relating to sign language and pictography. In this work he was assisted by Mr. HOFFMAN, particularly in the sketches made by the latter during previous field seasons, and in preparing a large number of the illustrations for the paper on Picture-writing of the American Indians which appears in the present volume.

Mr. J. OWEN DORSEY did no field work during the year, but devoted much of the time to original investigations. Samuel Fremont, an Omaha Indian, came to Washington in October, 1888, and until February, 1889, assisted Mr. Dorsey in the

revision of the entries for the Čegiha-English Dictionary. Similar assistance was rendered by Little Standing Buffalo, a Ponka Indian from the Indian Territory, in April and May, 1889. Mr. Dorsey also completed the entries for the Čegiha-English Dictionary, and a list of Ponka, Omaha, and Winnebago personal names. He translated from the Teton dialect of the Dakota all the material of the Bushotter collection in the Bureau of Ethnology, and prepared therefrom a paper on Teton folklore. He also prepared a brief paper on the camping circles of Siouan tribes, and in addition furnished an article on the modes of predication in the Athapascan dialects of Oregon and in several dialects of the Siouan family. He also edited the manuscript of the Dakota grammar, texts, and ethnography, written by the late Rev. Dr. S. R. Riggs, which has been published as Volume VII, Contributions to North American Ethnology. In May, 1889, he began an extensive paper on Indian personal names, based on material obtained by himself in the field, to contain names of the following tribes, viz: Omaha and Ponka, Kansa, Osage, Kwapa, Iowa, Oto and Missouri, and Winnebago.

Mr. ALBERT S. GATSCHET'S office work was almost entirely restricted to the composition and completion of his Ethnographic Sketch, Grammar, and Dictionary of the Klamath Language of Oregon, with the necessary appendices. These works have been published as Parts 1 and 2, Vol. II, of Contributions to North American Ethnology.

Mr. JEREMIAH CURTIN during the year arranged and copied myths of various Indian families, and also transcribed

Wasco, Sahaptin, and Yanan vocabularies previously collected.

Mr. JAMES MOONEY, on his return from the Cherokee reservation in 1888, began at once to translate a number of the prayers and sacred songs obtained from the shamans during his visit. The result of this work has appeared in a paper in the Seventh Annual Report of the Bureau entitled "Sacred formulas of the Cherokees." Considerable time was devoted also to the elaboration of the botanic and linguistic notes obtained in the field. In the spring of 1889 he began the collection of material for a monograph on the aborigines of the Middle Atlantic slope, with special reference to the Powhatan tribes of Virginia. As a preliminary, about one thousand circulars, requesting information in regard to local names, antiquities, and surviving Indians, were distributed throughout Maryland, Delaware, Virginia, and northeastern Carolina. Sufficient information was obtained in responses to afford an excellent basis for future work in this direction.

Mr. JOHN N. B. HEWITT, from July 1 to August 1, was engaged in arranging alphabetically the recorded words of the Tuscarora-English dictionary mentioned in former reports, and in the study of adjective word forms to determine the variety and kind of the Tuscarora moods and tenses. After his return from the field Mr. Hewitt classified and tabulated all the forms of the personal pronouns employed in the Tuscarora language. Studies were also prosecuted to develop the predicative function in the Tuscarora speech. All the terms of consanguinity and affinity as now used among the Tuscarora were recorded and tabulated. Literal translations of many myths collected in

the field were made, and free translations added to four of them. In all appropriate instances linguistic notes were added relating to etymology, phonesis, and verbal change.

Mr. JAMES C. PILLING gave much time to bibliographies of North American languages. The bibliography of the Iroquoian languages was completed early in the fiscal year, and the edition was issued in February. In the meantime a bibliography of the Muskhogean languages was compiled, the manuscript of which was sent to the Public Printer in January, 1889, though the edition was not delivered during the fiscal year. Early in March, 1889, Mr. Pilling went to Philadelphia to inspect the manuscripts belonging to the American Philosophical Society, the authorities of which gave him every facility, and much new material was secured. In June he visited the Astor, Lenox, and Historical Society libraries in New York; the libraries of the Boston Athenæum, Massachusetts Historical Society, American Board of Commissioners for Foreign Missions, and the Boston Public Library, in Boston; that of Harvard University, in Cambridge; of the American Antiquarian Society, in Worcester; and the private library of Dr. J. Hammond Trumbull, in Hartford. In Canada he visited the library of Laval University, and the private library of Mr. P. Gagnon, in Quebec, of St. Mary's College and Jacques Cartier School in Montreal, and various missions along the St. Lawrence river, to inspect the manuscripts left by the early missionaries. The result was the accumulation of much new material for insertion in the Algonquian bibliography.

Mr. WILLIAM H. HOLMES continued to edit the illustrations for the publications of the Bureau, and besides was engaged

actively in his studies of aboriginal archeology. He completed papers upon the pottery of the Potomac valley, and upon the objects of shell collected by the Bureau during the last eight years, and he has others in preparation. As curator of Bureau collections he makes the following statement of accessions for the year: From Mr. Thomas and his immediate assistants, working in the mound region of the Mississippi valley and contiguous portions of the Atlantic slope, the Bureau has received one hundred and forty-six specimens, including articles of clay, stone, shell, and bone. Mr. Victor Mindeleff obtained sixteen specimens of pottery from the Pueblo country. Other collections by members of the Bureau and the U.S. Geological Survey are as follows: Shell beads and pendants (modern) from San Buenaventura, California, by Mr. Henshaw; fragments of pottery and other articles from the vicinity of the Cherokee agency, North Carolina, by Mr. Mooney; a large grooved hammer from the bluff at Three Forks, Montana, by Mr. A. C. Peale; a large series of rude stone implements from the District of Columbia, by Mr. De Lancey W. Gill. Donations have been received as follows: An important series of earthen vases from a mound on Perdido bay, Alabama, given by F. H. Parsons; ancient pueblo vases from southwestern Colorado, by William M. Davidson; a series of spurious earthen vessels, manufactured by unknown persons in eastern Iowa, from C. C. Jones, of Augusta, Georgia; fragments of pottery, etc., from Romney, West Virginia, given by G. H. Johnson; fragments of a steatite pot from Ledyard, Connecticut, by G. L. Fancher; an interesting series of stone tools, earthen vessels, etc., from a mound on Lake Apopka, Florida, by

Thomas Featherstonhaugh; fragments of gilded earthenware and photographs of antiquities from Mexico, by F. Plancarte; fragments of gold ornaments from Costa Rica, by Anastasio Alfaro. Important specimens have been received as follows: Articles of clay from a mound on Perdido bay, Alabama, loaned by Mrs. A. T. Mosman; articles of clay from the last mentioned locality, by A. B. Simons; pottery from the Potomac valley, by W. Hallett Phillips, by S. V. Proudfit, and by H. L. Reynolds; articles of gold and gold-copper alloy from Costa Rica, by Anastasio Alfaro, Secretary of the National Museum at San Jose.

Mr. THOMAS was chiefly occupied during the year in the preparation of the second and third volumes of his reports upon the mounds. He also prepared a bulletin on the Circular, Square, and Octagonal Earthworks of Ohio, with a view of giving a summary of the recent survey by the mound division of the principal works of the above character in southern Ohio. A second bulletin was completed, entitled "The Problem of the Ohio Mounds," in which he presented evidence to show that the ancient works of the state are due to Indians of several different tribes, and that some, at least, of the typical works were built by the ancestors of the modern Cherokees.

Mr. REYNOLDS after his return from the field was engaged in the preparation of a general map of the United States, showing the area of the mounds and the relative frequency of their occurrence. He also assisted Mr. Thomas in the preparation of the monograph upon the inclosures.

Mr. VICTOR MINDELEFF, assisted by Mr. Cosmos Mindeleff, was engaged in preparing for publication a "Study of Pueblo

Architecture" as illustrated in the provinces of Tusayan and Cibola, material for which he had been collecting for a number of years. This report has appeared in the Eighth Annual Report of the Bureau.

Mr. COSMOS MINDELEFF with the force of the modeling room at the beginning of the fiscal year completed the exhibit of the Bureau for the Cincinnati Exposition, and during the early part of the year he was at Cincinnati in charge of that exhibit. Owing to restricted space it was limited to the Pueblo culture group, but this was illustrated as fully as the time would permit. The exhibit covered about 1,200 feet of floor space, as well as a large amount of wall space, and consisted of models of pueblo and cliff ruins, models of inhabited pueblos, ancient and modern pottery, examples of weaving, basketry, etc.; a representative series of implements of war, the chase, agriculture, and the household; manikins illustrating costumes, and a series of large photographs illustrative of aboriginal architecture of the pueblo region, and of many phases of pueblo life. Upon Mr. Mindeleff's return from Cincinnati he resumed assistance to Mr. Victor Mindeleff upon the report on pueblo architecture, and by the close of the fiscal year the two chapters which had been assigned to him were completed. They consist of a review of the literature on the pueblo region and a summary of the traditions of the Tusayan group from material collected by Mr. A. M. Stephen. Work was also continued on the duplicate series of models, and twelve were advanced to various stages of completion. Some time was devoted to repairing original models which had been exhibited at Cincinnati and other exhibitions, and also to

experiments in casting in paper, in order to find a suitable paper for use in large models. The experiments were successful.

Mr. J. K. HILLERS has continued the collection of photographs of prominent Indians in both full-face and profile, by which method all the facial characteristics are exhibited to the best advantage. In nearly every instance a record has been preserved of the sitter's status in the tribe, his age, biographic notes of interest, and in cases of mixed bloods, the degree of intermixture of blood. The total number of photographs obtained during the year is 27, distributed among the following tribes, viz: Sac and Fox, 5; Dakota, 6; Omaha, 6, and mixed bloods (Creeks), 10.

Mr. FRANZ BOAS was employed from February to April in preparing for convenient use a series of vocabularies of the several Salish divisions, previously collected by him in British Columbia.

Mr. LUCIEN M. TURNER was for two years stationed at the Hudson Bay Company's post, Fort Chimo, near the northern end of the peninsula of Labrador, as a civilian observer in the employ of the Signal Service, U.S. Army. He was appointed to that position at the request of the late Prof. Baird, Secretary of the Smithsonian Institution, in order that his skill might be made available in a complete investigation of the ethnology and natural history of the region. Mr. Turner left Washington in June, 1882, and returned in the autumn of 1884. During the last year he was engaged in the preparation of a report which will appear in one of the forthcoming annual reports of the Bureau.

NECROLOGY.

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MR. JAMES STEVENSON.

The officers of the Bureau of Ethnology and all persons interested in researches concerning the North American Indians were this year called to lament the death of Mr. James Stevenson, who had made regular and valuable contributions to the publications and collections of the Bureau.

Mr. Stevenson was born in Maysville, Kentucky, on the 24th of December, 1840. When but a boy of 16 he became associated with Prof. F. V. Hayden, and accompanied him upon expeditions into the regions of the upper Missouri and Yellowstone rivers. Although the main objects of these expeditions were geological, his tastes led him chiefly to the observation of the customs and dialects of the Indians, and the facilities for such study afforded him by the winters spent among the Blackfoot and Dakota Indians excited and confirmed the anthropologic zeal which absorbed the greater part of his life.

After military service during the civil war he resumed, in 1866, the studies which had been interrupted by it, and accompanied Prof. Hayden to the Bad Lands of Dakota. From this expedition and the action of the Congress of the United States in 1866-'67, sprang the Hayden survey, and during its existence Mr. Stevenson was its executive officer. In one of the explorations from 1868 to 1878, which are too many to be here enumerated, he climbed the Great Teton, and

was the first white man known to have reached the ancient Indian altar on its summit.

In 1879 the Hayden survey was discontinued, the Bureau of Ethnology was organized, and the U.S. Geological Survey was established. Mr. Stevenson, in addition to his duties as the executive officer of the new survey, was detailed for research in connection with the Bureau of Ethnology. In the subsequent years he devoted the winters—from the incoming of the field parties to their outgoing in the spring—chiefly to business of the survey; his summers to his favorite researches. He explored the cliff and cave dwellings of Arizona and New Mexico; he unearthed in the Canyon de Chelly two perfect skeletons of its prehistoric inhabitants; he investigated the religious mythology of the Zuñi, and secured a complete collection of fetich-gods, never before allowed out of their possession; he studied the history and religions of the Navajo and the Tusayan, and made an invaluable collection of pottery, costumes, and ceremonial objects, which are now prominent in the U.S. National Museum. But in the high mesas which were the field of his explorations in 1885 he was attacked by the “mountain fever” in its worst form. It was his first serious illness, and his regular and temperate life saved him for the time. But a visit to the same region in 1887 brought on a second attack of this peculiar and distressing disease. He came home prostrated, with symptoms of serious heart failure.

He died at the Gilsey House, in New York city, on the 25th of July, 1888, and was buried in the cemetery of Rock Creek church, near Washington.

ACCOMPANYING PAPER.

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For the first time in the series of the Annual Reports of this Bureau a single paper is submitted to exhibit the character of the investigations undertaken and the facts collected by its officers, with the results of their studies upon such collections. But while the paper is single in form and in title, it includes, in its illustrations and the text relating to them, nearly all topics into which anthropology can properly be divided, and therefore shows more diversity than would often be contained in a volume composed of separate papers by several authors. Its subject-matter being essentially pictorial, it required a large number of illustrations, twelve hundred and ninety-five figures being furnished in the text, besides fifty-four full-page plates, which, with their explanation and discussion, expanded the volume to such size as to exclude other papers.

PICTURE-WRITING OF THE AMERICAN INDIANS, BY GARRICK MALLERY.

The papers accompanying the Fourth Annual Report of this Bureau, which was for the fiscal year 1882-'83, included one under the title "Pictographs of the North American Indians, a Preliminary Paper, by Garrick Mallery." Although that work was of considerable length and the result of much research and study, it was in fact as well as in title preliminary. The substance and general character of the information obtained at that time on the subject was published not only for the benefit of students already

interested in it, but also to excite interest in that branch of study among active explorers in the field and, indeed, among all persons engaged in anthropologic researches. For the convenience of such workers as were invited in general terms to become collaborators, suggestions were offered for the examination, description, and study of the objects connected with this branch of investigation which might be noticed or discovered by them. The result of this preliminary publication has shown the wisdom of the plan adopted. Since the distribution of the Fourth Annual Report pictography in its various branches has become, far more than ever before, a prominent feature in the publications of learned societies, in the separate works of anthropologists, and in the notes of scientific explorers. The present paper includes, with proper credit to the authors quoted or cited, many contributions to this branch of study which obviously have been induced by the preliminary paper before mentioned.

The interest thus excited has continued to be manifested by the publication of new information of importance, in diverse shapes and in many languages, some of which has been received too late for proper attention in this paper.

Col. Mallery's studies in pictography commenced in the field. He was stationed with his military command at Fort Rice, on the upper Missouri river, in the autumn of 1876, and obtained a copy of the remarkable pictograph which he then called "A Calendar of the Dakota Nation," and published under that title, with interpretation and explanation, in Vol. III, No. 1, of the series of bulletins of the U.S. Geological and Geographical Survey of the Territories,