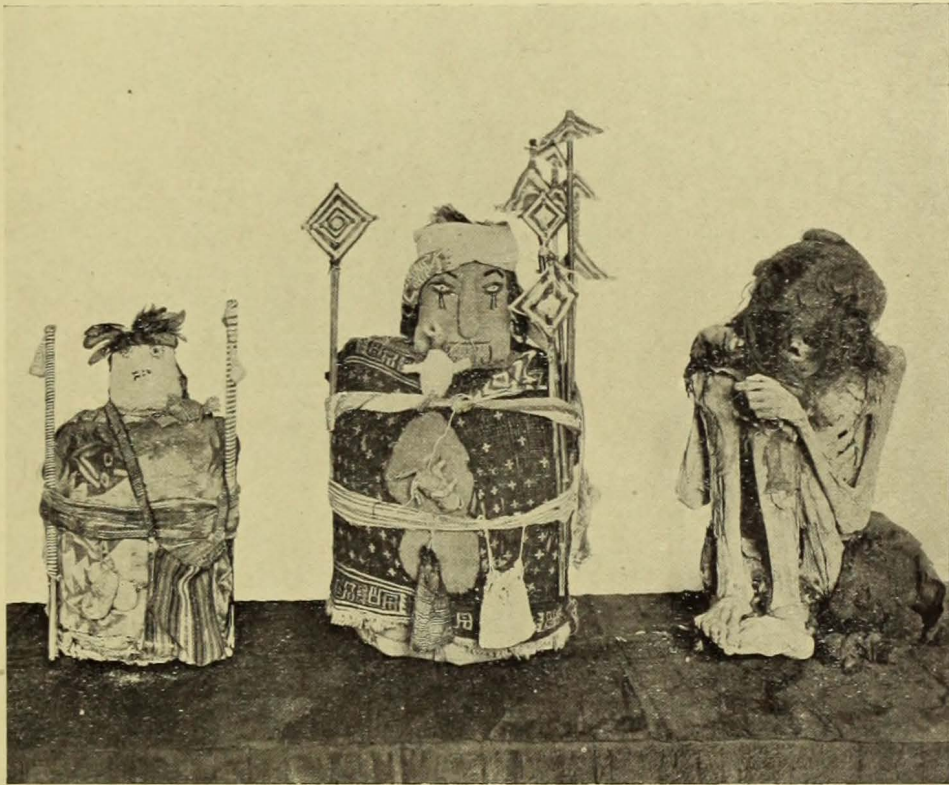


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# Peruvian Mummies



By CHARLES W. MEAD

Department of Ethnology

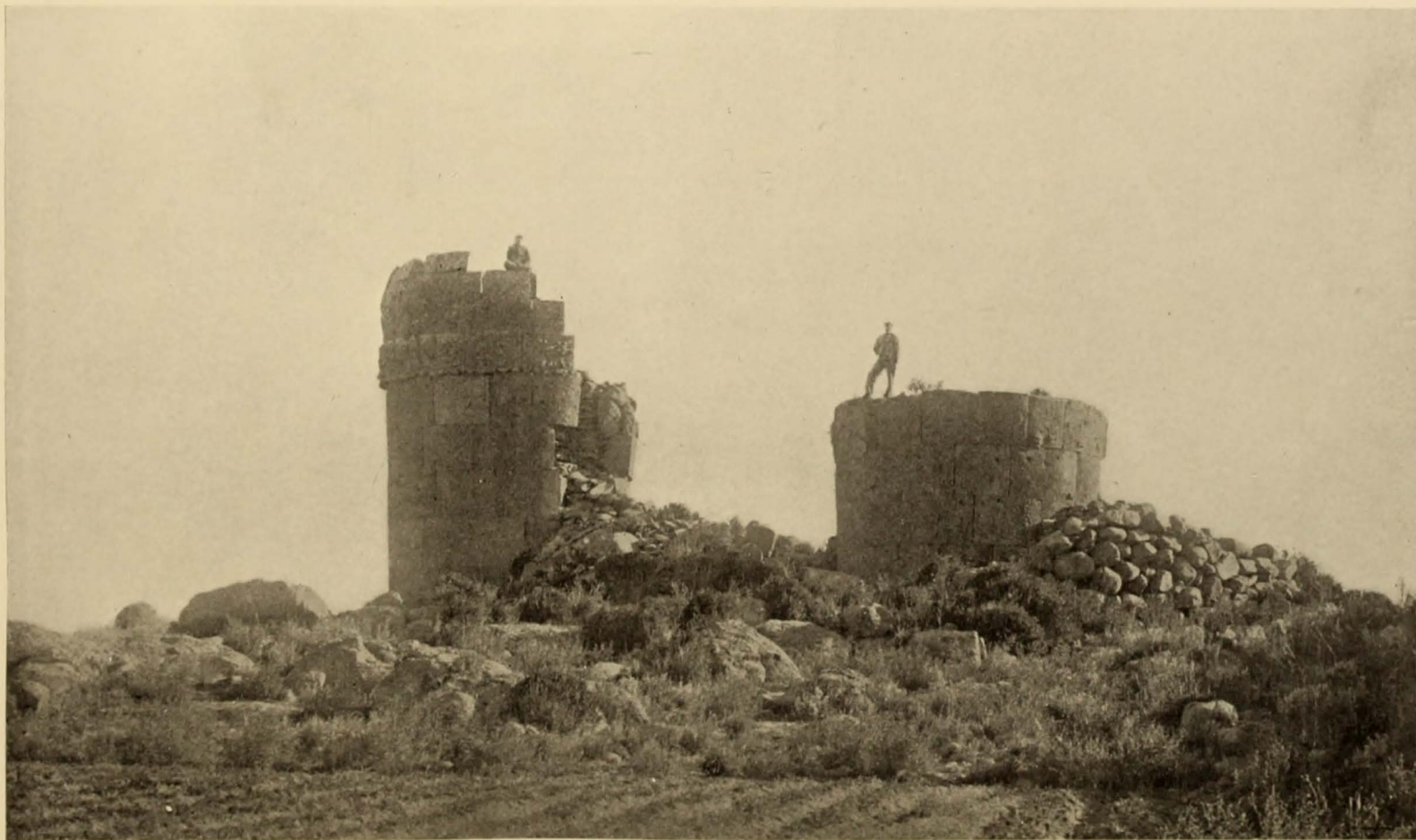
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# Peruvian Mummies

AND WHAT THEY TEACH

A GUIDE TO EXHIBITS IN THE PERUVIAN HALL

By CHARLES W. MEAD

DEPARTMENT OF ETHNOLOGY

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**NO. 24**

OF THE

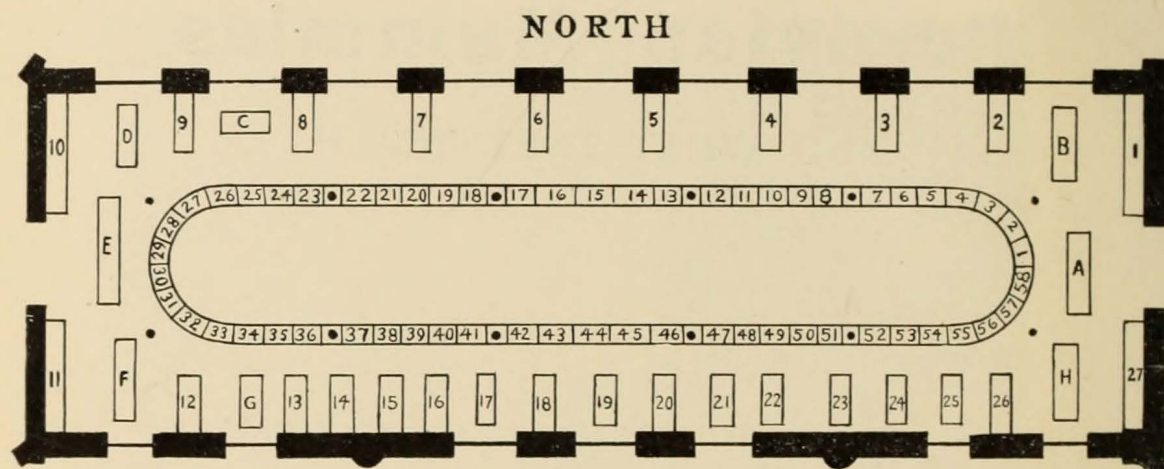
**GUIDE LEAFLET SERIES**

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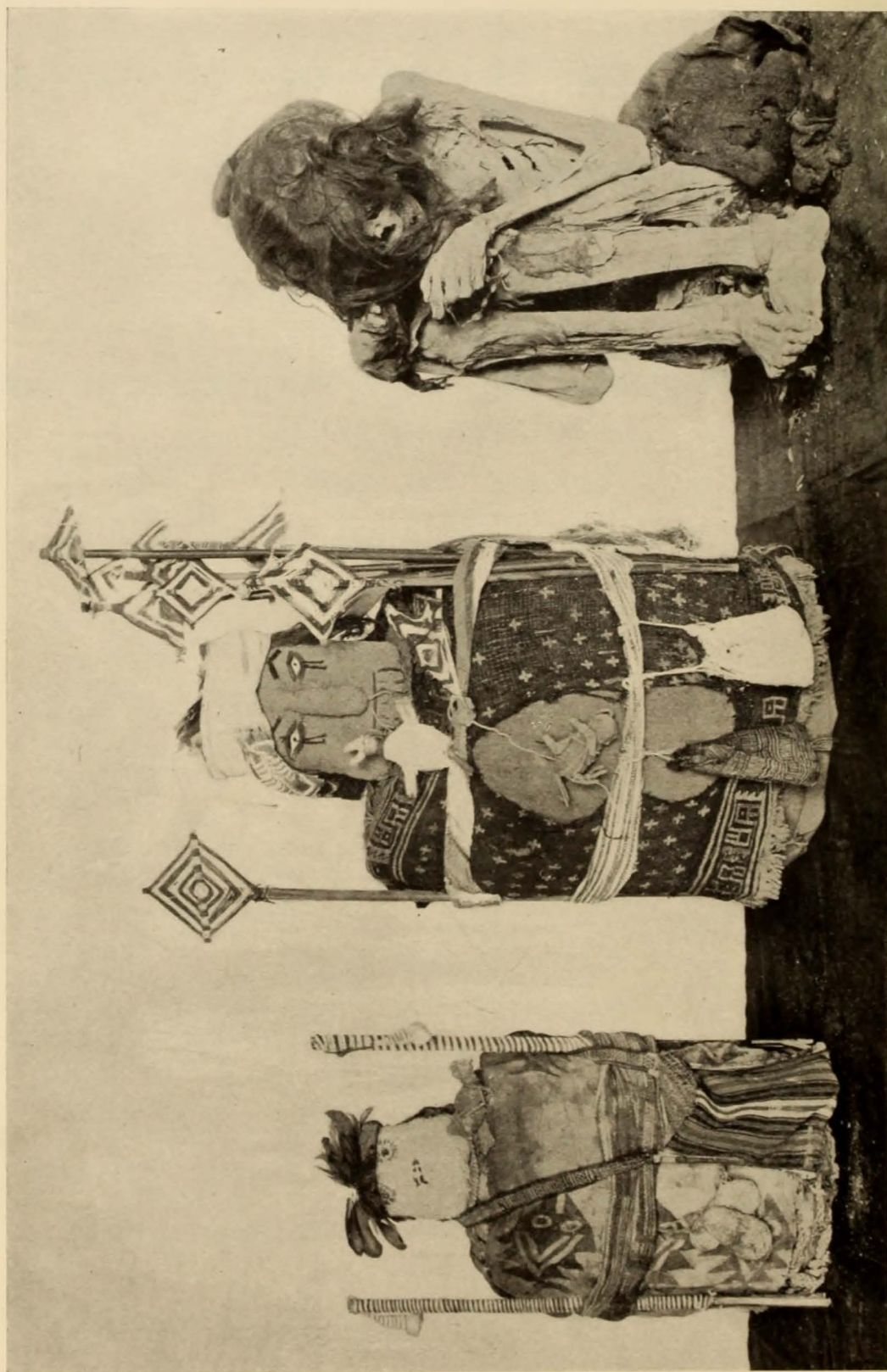
PRESENT LOCATION OF THE OBJECTS DESCRIBED IN THIS  
LEAFLET.

	CASE
Mummy bundles . . . . .	U 27
Mummies . . . . .	U 27
Prayer sticks . . . . .	R 4-5
Mummified animals . . . . .	U 27
Trephined skulls . . . . .	U 26
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Cloths . . . . .	U 1
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"U" refers to the upright cases; "R," to the railing cases.







PERUVIAN MUMMY BUNDLES AND MUMMY



## PERUVIAN MUMMIES AND WHAT THEY TEACH.

BY CHARLES W. MEAD,

*Department of Ethnology.*



ANCIENT Peru, the land of the Incas, comprised not only the region included within the present Republic of Peru, but also the greater part of Ecuador, Bolivia and Chile and was about equal to that portion of the United States lying east of the Rocky Mountains. The Incas proper were a powerful tribe of warlike people inhabiting the great central plateau, from which dominating position they extended their conquest in all directions. They developed a much higher order of civilization than was found in other parts of the continent by the early European explorers, and the empire under their sway included many tribes speaking different dialects.

The history of the Ancient Peruvians must to a large degree be read in their graves, since they left no written records and the Spanish conqueror destroyed many of their cities and suppressed their customs. Like many other peoples the Peruvians bestowed much tender care on their dead, carefully preparing them for burial and placing with them in the ground many objects which were dear to them in life. Methods of burial are so intimately connected with the religious and other customs of a people that in the absence of other sources of information a study of graves or tombs may be expected to lead to important results. Fortunately for the archæologist, climatic conditions in some parts of Peru are such that "burials" have been well preserved. The region west of the Peruvian Cordillera, a narrow strip along the coast, is in the main a desert, the only fertile spots being the narrow valleys of the small rivers flowing down to the Pacific.<sup>1</sup> The tombs and graves are usually found on elevated places outside of the valleys where the extreme dryness of the air combines with the nitrous character of the sand, into which moisture has seldom found its way, to desiccate and preserve the bodies of the dead thus mummifying them naturally. The same factors have

**Importance  
of the  
Burials**

<sup>1</sup>The visitor is referred to the relief map of South America on the left as he enters the hall for a clear exposition of the topographic features of the region.

caused the clothing and objects placed with the dead to be preserved for many centuries.

As a rule the bodies were prepared for burial by placing them in a sitting position with the knees drawn up and the head and hands resting upon them, as is shown in the right-hand figure on page 6. Sometimes,

**Preparation  
for Burial**

however, as appears from burials in the Chira Valley, in the extreme northwest of Peru, the body was extended at full length. A few of the extended bodies have been found in other parts of the country, and two examples of this form from Surco, Peru, are in the collection. After the body was placed in position, it was enveloped in wrappings of various kinds. Sometimes the body was covered with fine cotton cloth, over which were placed finely woven blankets or ponchos of the wool of the vicuña or the alpaca, with designs in various colors.

The body and its wrappings were bound together by a net-work of stout cord of vegetable fibre; by a piece of strong cloth sewed together in the form of a closed sack, or in some localities by a casing of woven rushes. The "mummy bundle" was surmounted by the so-called "false head," which was sewed to its upper surface. The significance of this practice is unknown. These false heads, many of which are present in the collection, were made of cloth and filled with different vegetable substances. The face was represented in various ways:

**Mummy  
Bundles**

sometimes by a mask of wood or clay, but often the eyes, nose and mouth were made of wood, shell, gold or silver and fastened directly to the cloth by means of thread. To the outside of the mummy bundle were often attached several of the prayer sticks or sepulchral tablets which are frequently found in considerable numbers in the sand about the grave. These are either in the form of a cross wound with variously colored yarns, or a framework of split reeds, covered with cloth upon which rude designs are painted. Favorite animals were sometimes buried with the dead as is shown by the mummified bodies of a dog and a parrot in the collection.

The manner of interment of the mummy bundle and its accompaniments differed in various localities. In the coast region many of the

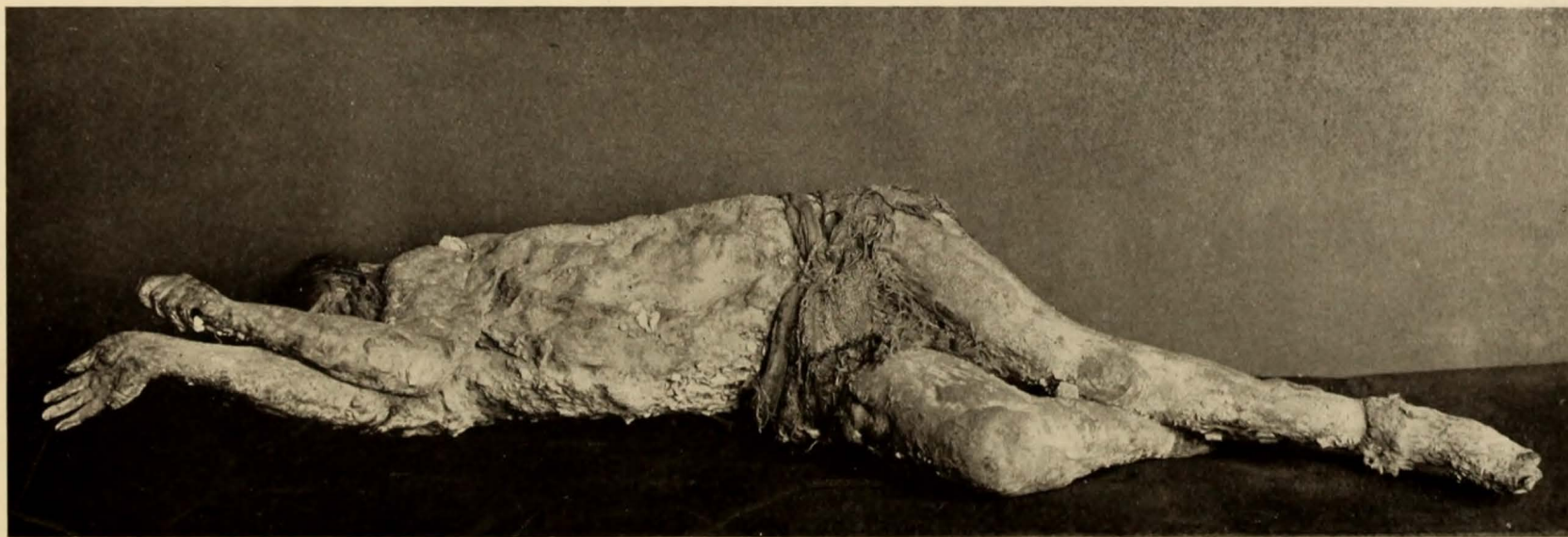
**Huacas**

mummies are found in little vaults, or "huacas," of adobes or flat stones roofed with sticks or canes, overlaid with mats or a layer of rushes, which prevented the earth covering from filling the grave. These vaults usually contain from one to four bodies.









Burials in stone towers or "chulpas" seem to have been confined chiefly to the Aymará Indians of the Callao, the great plateau of the Andes which includes the basin of Lake Titicaca and lies between the two maritime cordilleras and the eastern range, out of which rise the lofty volcanic peaks of Illimani and Sorata. In plan these chulpas are either circular or rectangular and are spoken of as round or square towers. A round burial tower is shown on page 2. Dr. von Tschudi found chulpas in the Department of Junin, which may have been built by Aymará *mitimaes*, or translated colonies. Describing the burial towers near Palca, E. G. Squier says:<sup>1</sup> "Primarily these chulpas consisted of a cist, or excavation, in the ground about four feet deep and three feet in diameter, walled up with rough stones. A rude arch of converging and overlapping stones, filled in or cemented together with clay, was raised over this cist, with an opening barely large enough to admit the body of a man, on a level with the surface of the ground, towards the east. Over this hollow cone was raised a solid mass of clay and stones, which, in the particular chulpa I am now describing as a type of the whole, was 16 feet high, rectangular in plan, 7½ feet face by 6 feet on the sides. The surface had been rough-cast with clay, and over this was a layer of finer and more tenacious clay or stucco, presenting a smooth and even surface."

Chulpas

One of the most remarkable specimens that the Department of Ethnology has acquired is a naturally mummified body which was found in an old copper mine at Chuquicamata, Province of Antofagasta, Chile, and which is illustrated on page 10. The condition of the body shows that the unfortunate miner was caught by a cave-in of the roof and partly crushed. The mummification seems to have been produced in part by the action of copper salts and not to have been altogether a desiccation due to the dryness of the region. The skin has not collapsed on the bones, as in the mummies found usually in the region, but the body and limbs preserve nearly their natural form and proportions, except for the crushing already mentioned. No analysis has yet been made of the tissues, so that it is too early to hazard any supposition as to the chemical changes which they have undergone. Mines in this neighborhood have been worked for an unknown length of time upon a peculiar deposit of atacamite, a

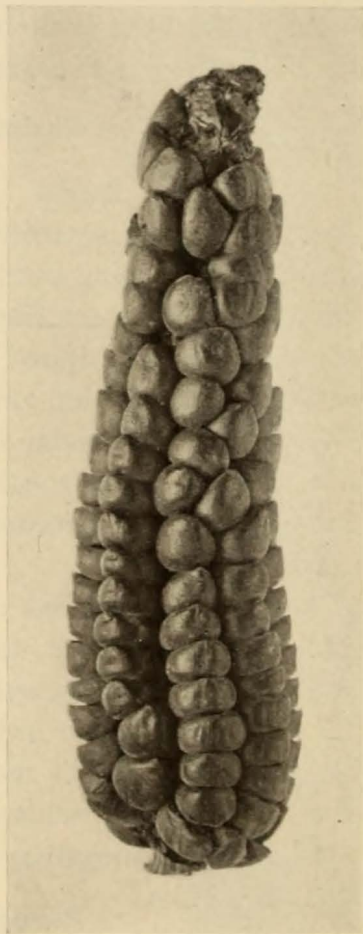
Natural  
Mummy

<sup>1</sup> Squier's Peru, p. 243.



hydrous chloride of copper, which is much prized on account of its easy reduction. The age of the mummy is unknown, but it is supposed to be pre-Columbian.

**Weapons and  
Implements**



EAR OF CORN. FOUND WITH A MUMMY

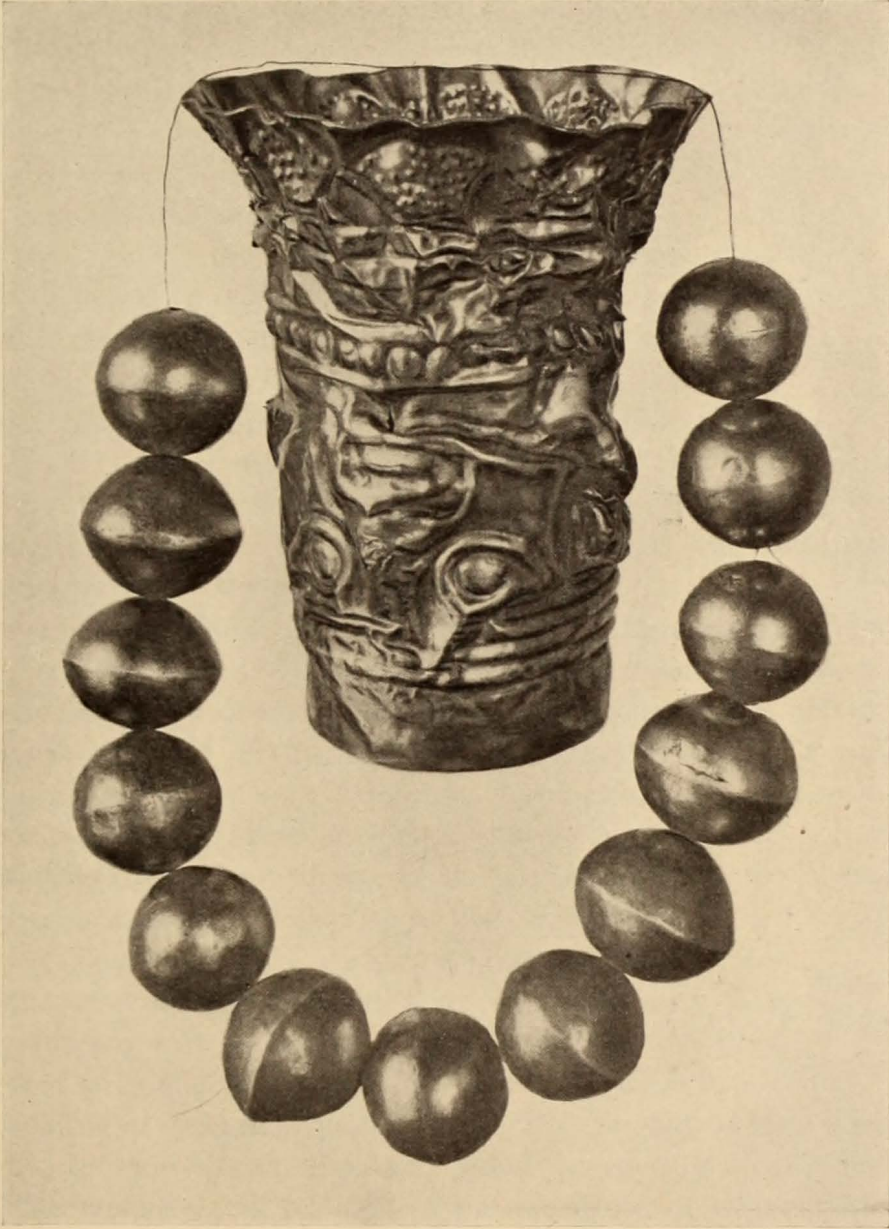
The story told by the objects found with the Peruvian dead is in part the story of ancient Peruvian life. The objects in the Peruvian collection in the hall, most of which have

come from graves and mummy bundles, have been arranged so as to tell part of this story. For example we find with the bodies of men slings for throwing stones, stone-headed clubs and bolas (rounded stones joined by cords), showing the weapons and implements of war and the chase. With the mummy bundle of the woman have been found work-baskets, filled with threads and yarns of various colors, needles of thorn and copper, the implements used in weaving, such as spindles and shuttles, or the stones used in smoothing and polishing the outside of pottery vessels. Woman's work in ancient Peru is indicated by the presence or absence of objects familiar to us of the present day. Corn, beans and other foods were usually placed beside the body in the grave, together with vessels used in eating and drinking. These objects indicate not alone the belief of the people in a future world and the necessity of sustaining the spirit in its

journey thereto, but they also show that the people were well advanced in agriculture, and we are enabled to determine the kinds of plants cultivated and in many cases even the methods by which they were prepared for use.

Furthermore the objects found in the graves prove that in the working of copper, silver and gold the ancient Peruvians take high rank, and





CUP OF BEATEN GOLD AND STRING OF GOLD BEADS



show that the people knew how to exploit and treat the ores occurring in their land. Among copper implements there may be seen in the collection a great variety of spear points, club-heads, digging and planting implements, knives and axes. Tweezers are among the most familiar objects from the graves, and are often found suspended from the neck of a mummy by means of a cord.

**Use of  
Copper**

Some of the most notable of the gold objects are a cup beaten from a single piece, and ornamented in repoussé-work; human and animal figures, both solid and hollow, and beads and pins. The illustration on page 13 shows the gold cup and a string of large gold beads. In silver there are cups and vessels which, like the gold cup, are beaten from single pieces and are often ornamented with human or animal figures and other designs. Silver tweezers in many fanciful forms, pins and a variety of ornaments have been found in and with the mummy bundles. These objects prove that the makers were familiar with the processes of casting in moulds, beating and soldering. Many of the hollow figurines were made in three or more pieces and the parts soldered together.

**Gold and  
Silver**

Another remarkable class of objects is to be found on the right as one enters the hall. Here are many garments and pieces of cloth which were found wrapped around the dead or deposited in the graves. A glance at this part of the collection will show the ancient Peruvians had great skill in the art of weaving. Upon closer examination it will appear that they were familiar with most of the weaves known to modern people, from the finest gobelins to the coarsest cotton cloth. Many of the specimens cannot be excelled at the present time. The looms used were of the simplest description, consisting of two cross-sticks, one at the top, and the other at the bottom. The warp threads were stretched from one to the other, while the woof or filling was passed over and under these by a shuttle. So the weaving of these most perfect fabrics may be said to have been by hand. In this respect they may stand in contrast to the modern machine methods. In addition to the excellence of weave Peruvian cloth is unique in decoration. The designs are woven in and consist of geometric figures and conventionalized representations of men, pumas, jaguars and various kinds of birds and fish. Some of the forms are illustrated on page 16. A part of the decorative effect is due to the regular repetition of the same design in different colors.

**Cloth and  
Weaving**



That the Peruvian should also take high rank as a potter will be gathered from even a superficial study of the collection of all forms of pottery at the west end of the hall, since many of the vessels show real beauty of outline and form and excellence in their painted decoration. These qualities seem the more remarkable when we consider that the



PIECES OF CLOTH FOUND WITH MUMMIES

makers had no knowledge of the potter's wheel and were unacquainted with the art of glazing. Some of the vessels were shaped by hand, but others show that they were formed by means of moulds. The body was moulded in two parts which were joined by being pressed together. Spout or handle, if desired, was then attached, and all irregularities in the junctures remedied by scraping and rub-

**Pottery**



POTTERY WATER-JAR WITH CORN DECORATION





bing. Moulds were often used in making many of the animal heads and human figures that adorn these vessels. The decoration was put on with paint, and, after firing, the vessels were polished by rubbing with a smooth pebble.

In the absence of an aboriginal written language in Peru and on account of the meagreness of the descriptions left by the first Europeans who visited the country, it is fortunate for the student of Peruvian archæology that the potter often represented by the shape of his vessel or in its



POTTERY VESSEL WITH PAINTED DECORATION

decoration forms and customs which were familiar to him in his everyday life.

Representations of the human figure are common. Some of these show the manner of wearing the poncho and other articles of clothing. Some have in the lobe of the ear the large cylindrical ear-ornaments which led the Spaniards to nickname these people "Orejones" — big ears. It would be impracticable, however, to mention here more than a few of the subjects depicted. On one vessel a man pursues and kills a deer with a spear; on another a hunter is returning with the body of a deer thrown across his shoul-

**Human  
figures**

ders. Some jars show the manner of catching fish by means of hook and line, while others portray men and women carrying water jars and other burdens by means of a strap passing around the forehead. Here we see a man with his favorite bird, evidently of the parrot family, perched upon his shoulder; there a dance in progress, with several of the figures playing upon musical instruments.

These potters were very fond of moulding their clay into animal forms, and they have left us more or less truthful representations of many of the species familiar to them. Their favorite models appear to have been the puma, jaguar, monkey, llama, Guinea-pig, lizards, birds of the parrot family, the king vulture and a number of shells and vegetable forms. A complete list would include most of the animal and many of the vegetable forms of Peru.

**Animal  
figures**

Everywhere, except in the most elevated parts of the country, maize was not only the staple food of the people, but also was the source of their favorite intoxicating beverage,—*chicha*; hence it was but natural that they should so often represent the grain on their vessels. This was very simply and perfectly accomplished. A mould was made from an ear of corn and dried in the sun or fired. Into this clay was pressed; which on being removed would be a facsimile of the ear. This was joined to the jar while both were still in a plastic condition, after which the whole was fired and polished. A corn jar is represented in the illustration on page 17.

**Chicha**

Although this guide relates chiefly to burials, it may not be out of place to call attention to some peculiarities of Peruvian skulls. The skulls of all races are of great scientific value, but those of Peru are of particular interest, because many of them bear the marks of surgical or sacrificial operations. The Museum collection of Peruvian skulls is so extensive that only a representative series is on exhibition. This contains many examples showing trephining, artificial deformation and pathological conditions, together with several normal Peruvian skulls for purposes of comparison.

**Trephined  
skulls**

In Peru, where stones from slings and wooden clubs with heads of stone and copper were the common offensive weapons, complex fractures of the skull with depression of its bony plates must have been common. There seems no reason to doubt that trephining was resorted to as a means of relief in such fractures, and that sometimes cures were effected by this treatment. It is also probable that the operation in many









cases was a part of some religious ceremonial, since some of the trephined skulls in the collection show distinct orientation of the wound and present no indication of lesion. Implements of copper and bronze and knives of stone and obsidian must have been employed in the operation, which was performed with skill.

Artificial deformation of the head was extensively practised in ancient Peru and was accomplished by means of ligatures applied in infancy. The form taken by the head was determined by the manner in which these bindings were applied. The pathological skulls show the ravages of disease in the bones of the cranium.

### THE QUIPU.

The Quipu is a fringe consisting of a main cord with other cords of various colors hanging from it. In the fringe knots of different kinds were tied. The ancient Peruvians, having no written language, made use of the quipu to keep their accounts and possibly to record historic incidents. By the color of the cord, the kind of knot, the distance of the knots from the main cord and from each other, many facts could be recorded and preserved. The maker of a quipu had a system which was to a great extent arbitrary, and which had to be explained when the quipu was placed in the keeping of another.

### COCA CHEWING.

The coca plant (*Erythroxylon coca*, Lam.) grows wild in the mountainous regions of Peru and Bolivia and was cultivated before the Conquest, as it is to-day, in districts from 2,000 to 5,000 feet above the sea. It is valued for its stimulating narcotic properties, and the present Indians will often carry heavy burdens for several days without food, if furnished with a plentiful supply of coca. The leaves are gathered and dried in the sun and then chewed mixed with unslacked lime in the same way the betel is used by the East Indians. A bag of coca leaves is almost always found with a mummy. The leaves of this plant, together with the cloth bags in which they were carried and the gourd flasks containing lime may be seen in the collection.

## MISCELLANEOUS EXHIBITS.

This gallery contains many exhibits, some of them very important, of which no special mention has been made, since it is believed that the case labels and the guide leaflets attached to the cases will furnish the desired information to the student and visitor. Among these may be mentioned the collection from the West Indies, the musical instruments of the Incas, the case containing a great variety of animal forms in pottery; collections of feather-work from Peru, Bolivia, Paraguay and Brazil, and the collection from Columbia consisting of many objects in pottery, stone and shell.

## BIBLIOGRAPHY.

The following books will be found useful to those who wish to study South American Archæology and they may be consulted on application to the librarian of the Museum.

- VEGA, GARCILASSO DE LA. *The Royal Commentaries of Peru*. Ed. Rycaut, London, 1688.
- CIEZA DE LEON, PEDRO DE. *Chronicle of Peru, Part I.* (Hakluyt Society.) London, 1864.
- ANDAGOYA, PASCUAL DE. *Narrative of the Proceedings of Pedrarias Davila.* (Hakluyt Society.) London, 1865.
- PRESCOTT, WILLIAM H. *History of the Conquest of Peru.* London, 1847.
- HERNDON AND GIBBON. *Exploration of the Valley of the Amazon.* Washington, 1853.
- FREZIER, MONSIEUR. *A Voyage to the South Sea and Along the Coast of Chili and Peru.* London, 1717.
- WHYMPER, EDWARD. *Travels Amongst the Great Andes of the Equator.* New York, 1892.
- HUTCHINSON, THOMAS, JR. *Two Years in Peru, with Explorations of its Antiquities.* London, 1873.
- SQUIER, E. G. *Incidents of Travels and Explorations in the Land of the Incas.* New York, 1877.
- WIENER, CHARLES. *Perou et Bolivie.* Paris, 1880.
- REISS AND STUEBEL. *The Necropolis of Ancon.* Ed. Keane, New York, 1887.
- BESSLER, ARTHUR. *Ancient Peruvian Art.* New York, 1903.
- STUEBEL AND UHLE. *Die Ruinenstätte von Tiahuanaco.* Breslau, 1892.
- HOLMES, WILLIAM H. *Textile Art in its Relation to the Development of Form and Ornament.* Annual Report Bureau Amer. Ethnology, 1884-85.
- STUEBEL, REISS AND KOPPEL. *Südamerikanische Völker.* (Alte Zeit.) Berlin, 1889.



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