under side of the corpse. Sometimes upon this were double bands of white and red linen; the latter, being narrower, were placed upon the white strips. One of these double bands ran lengthwise, while others were placed laterally across the body.

The deceased was now ready to be laid in a mummy-case or wooden coffin which might in turn be placed in one or more outer coffins, and if it could be afforded, in a final one of stone.

M. L. M.

## GOLD IN ANCIENT AMERICA

So much is the question of gold in the minds of all of us, that it is not out of order to look into the standing of the precious metal when the first white men came to America (and before). Dr. J. Alden Mason, Curator of the American Section, has prepared the succeeding article to describe briefly what is known of the use of gold in America before and just after the period of the Conquests.

THE lure of gold is so great that the soil of all America is pock-marked with holes made by treasure-hunters hopeful of finding buried fortunes. Not only is pirate gold sought, but thousands of Indian mounds, graves, and similar sites of archeological value have been ruined for scientific investigation by such digging, although in only the rarest cases is any gold found. In Indian graves of the Colonial period and later, occasional gold coins are found, but it is a fact realized by few that the greater number of American Indians in pre-Columbian days had never seen nor heard of gold. And what is even more surprising, in some places where gold was known, it was less highly prized than certain other ornamental materials, such as jade.

When Cortes and his followers landed on the shores of the Gulf of Mexico and received the messengers bearing gifts from Montezuma, the Aztec chief, their cupidity was aroused by the beautiful gold ornaments. But the messengers were annoyed at their lack of appreciation for four beautiful chalchihuites, or ornaments of jade, saying that each of the latter was worth more than a load of gold. And later, when in Mexico City the deposed Aztec chief gave the Conqueror an enormous golden treasure of fabulous value, he apologized for its meanness and said that he would add a few chalchihuites, each worth two loads of gold.

As may be judged from this, Mexico was a center for gold jewelry. But it was not known or used by the less cultured peoples in the

north of Mexico and was practically unknown in the present United States, Canada, and Alaska. Even in California, where the great gold "strike" was made, the native Indians never gathered or used it. A very few small gold objects have been found in some of the mounds of the Mississippi and Ohio Valleys, but so few that they might be explained as trade objects from Mexico, or as made in early Colonial days from gold coins.

The great center of goldwork was in the highland region from Peru to Mexico, and in all the intervening countries. Fabulous quantities of gold objects were secured by Pizarro in Peru, but the natives of Colombia and Panama were as well supplied. Apparently it was well known also far to the eastward in Guiana, and even the natives of the West Indies wore some gold ornaments, a fact that delighted the hearts of Columbus and his followers. A very few gold ornaments have been found in Florida, but it is not certain whether this influence had come across from the Bahama Islands, or whether the ornaments were made in later years from gold taken from Spanish caravels wrecked on the coast. In the greater part of the Amazon region and on the pampas in the south of South America again gold was unknown.

It is generally believed that the art of working gold in America originated in the northern part of South America and from there spread to the other regions, and that it was a relatively late invention, or, as archeologists say, "on a late horizon." It is possible, for instance, that it was not known in Mexico until nearly the end of the first millennium of our era. One of the reasons for so believing is that gold seems to have been absolutely unknown to the Early Maya of the first millennium A.D. No gold object is known ever to have been excavated from the Maya ruins of this period. The later Maya of northern Yucatan, however, had gold ornaments at the time of the Spanish Conquest, and many specimens have been taken out of the Sacred Cenote or well at Chichen Itza into which they had been thrown as sacrifices. Most, if not all of these, however, were apparently trade pieces, some probably having come from as far south as Colombia.

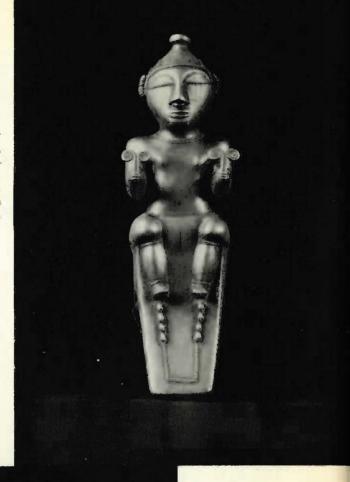
Whenever and wherever goldsmithing may have been invented in America, at the time of the Spanish Conquest the American Indian goldsmith, with his primitive tools, achieved results which will bear comparison, in delicacy and perfection of technique if not in absolute beauty, with the best goldwork of any time. Those who saw last year the exhibition of the exquisite ornaments recently excavated at Monte Alban in Oaxaca, Mexico, can bear testimony to this. Unfortunately

PLATE VII

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## SOUTH AMERICAN GOLDWORK

Gold effigy from Colombia, probably used as a container for pulverized lime, which was mixed with coca leaves and chewed by the natives of the Andean Highlands





## GOLD ORNAMENT

From Eduador. It probably represents a bat god with a modified human face and body

such finds are rare today. Tremendous quantities of the most beautiful objects were accumulated by the Spanish Conquerors; or rifled from graves in the following centuries, but almost without exception these found their way into the melting pot and later appeared as Spanish coins.

However, the opinions of the men who saw them, and the brief inventory lists that they made, give us some idea as to their nature. The Spaniards remarked that they did not believe that the beauty and ingenuity of some of the ornaments could have been exceeded, if equalled, anywhere in Europe. Such items are reported as a fish with scales of alternate gold and silver; it is doubtful if such an object could be cast today, and the report may have been a mistaken identification.

Most of the finer gold objects throughout America were made by the cire perdue or "lost-wax" process of casting. The form was moulded in wax and then covered with an envelope or covering of a mixture of clay and charcoal, an orifice being left through the envelope. This was then baked, the wax melted and ran out, and molten gold was poured in to take its place. With larger solid objects a core was made of clay and the wax moulded around this so that the finished object is a base core with a metal covering. The outer envelope had to be broken to release the gold ornament, so obviously only one copy could be secured from the mould. However, most of the other processes of gold work were known. Gold was beaten to a thin leaf and gilded on small objects. Gold plate of a little greater thickness was beaten into shape over forms of stone or wood, and appliqué ornaments of gold were fastened to larger ornaments by a gold solder.

J. A. M.

## EXCAVATIONS AT RAYY

THE Joint Expedition to Persia has now completed the first season of excavations at Rayy, and has also made brief reconnaisances in southern Luristan and in a valley just west of Kermanshah. During the seven months spent at Rayy the expedition, besides making many finds of considerable importance in themselves, has particularly achieved its principal purpose of locating the most fertile parts of the great site, so that future seasons may be planned to be as productive as possible.

Finds dating from the Islamic, Parthian, and Prehistoric periods have been discovered. Among the more notable objects may be mentioned two plaques depicting a falcon attacking a duck, numerous coins of copper, bronze and gold, and, of course, a variety of pottery, including what is evidently the prototype of the famous Rhages