

drinking wine, but in moderation, spending no money, dressing poorly, and ever with a fortune accumulating. The American wants to cut a dash and so does the Englishman, else the English would have maintained their commercial supremacy in Mexico. They lost it to the more frugal and economical Germans.

The American is a speculator, a dreamer of golden dreams; he lives for the eyes of other people; he is not capable of the patience that keeps a man tied to a desk or shop for half a lifetime, making a savings bank of himself.

Some Mexicans are afraid that a free influx of citizens from this country may Americanize it. This is true as to the means of transportation, the introduction of electric lights, improved hotel accommodations, and where similar improvements are concerned. But there is no doubt of the persistence of traditions and habits, and the influence of climate. It is difficult to introduce the American push and restlessness in business, and to overcome the habits formed in many centuries of letting the morrow take care of itself. There must be the mid-day siesta, and the number of working days is reduced by several feast days, saints' days, and holidays, besides the Sundays. There is no doubt that the productiveness of nature is an inducement to very leisurely labor, and the lack of any sharp division of seasons is a sort of moral discipline, as well as a stimulus to extra exertion in summer to prepare for winter. What must be the effect upon character when this stimulus is wanting? It is possible, of course, that industry will be stimulated by the inflow of settlers from the north, and that Mexico will take on new enterprise and productive vigor; but I think it is easier for Americans in Mexico to fall into Mexican ways and Mexican moral views than it is to convert the Mexicans to the American view of life. I do not doubt that Mexico has a great industrial, agricultural, and manufacturing future, but I fancy that its power of absorption, like that of Egypt, is greater than its facility of adaptation.

Ruins.—We have in Mexico some of the most ancient and remarkable ruins, and although there are different surmises about the time at which they were built and the people who built them, nothing is known positively about them.

The principal ones are in Uxmal and Chichen Itza in Yucatan, Comalcalco in Tabasco, Teotihuacan and Cholula in Puebla and Tlaxcala, and Mitla in Oaxaca.

Uxmal.—Uxmal is not far from the city of Merida, the capital of the State of Yucatan, supposed to have been built by the Mayas, and different books have been written about them, especially one by Dr. Augustus Le Plongeon, a French savant, who passed many years in Yucatan, studying its magnificent ruins, and published in New York, in 1896, a book entitled *Queen Moó and the Egyptian Sphinx*, in which

he contends that the empire of the Mayas, which had its seat at Yucatan, was the cradle of civilization, and that from there it went to India, Egypt, and finally to Greece and Western Europe.

Palenque.—Very likely the same Mayas built the large ruins which still exist in the district of Palenque in the State of Chiapas, and in some places in Guatemala.

Cholula.—The great pyramid of Cholula, made known to the scientific world by Humboldt, which is eight miles from Puebla, has been pictured and described. Its base is 1000 feet on each side, and it is built in two great terraces, the first being 71 feet, and the second 66 feet, in height. The top is 203 by 144 feet. So far as investigations have revealed, the great pyramid is artificial and is constructed of sun-dried brick.

Teotihuacan.—Teotihuacan, an ancient city lying twenty-five miles northeast of the City of Mexico, and occupying an area of about one and a half or two miles, contains some of the most remarkable series of ruins. To the north of the ruins is a truncated pyramid, rectangular in form, squared to the points of the compass, and known as the Pyramid of the Moon. South of it, at a distance of about 1300 yards, is another pyramid of similar form, known as the Pyramid of the Sun. Its perpendicular height is 223 feet, and its base measures about 735 feet from east to west. Both pyramids are united by a straight street, which starts from a circular plaza at the south side of the Pyramid of the Moon, and loses itself in the barranca south of the Pyramid of the Sun.

These colossal pyramids are regarded as among the most ancient monuments of Mexico, far antedating the civilization found by the Spaniards. They are wonderful illustrations of what perseverance and time will accomplish. Now even the means which the builders used for handling the immense blocks of volcanic stone with which they constructed is unknown. Other ruins, in the character of little mounds, are found scattered over the extensive plain in which the two pyramids are situated. The street or avenue which united the latter is called the "Road of the Dead." Along its entire length, parallel to it on both sides, there is a terrace constructed of cement, clay, and broken lava, faced with a coating of mortar or plaster, highly polished, and painted red and white. Desire Charnay removed the rubbish from one of the mounds on the side facing this road, and discovered what he calls a "palace," with two large halls and various small rooms. In 1886, Señor Don Leopoldo Batres made an excavation in one of the mounds, and found two polychrome frescos painted on the wall of the building which was laid bare. The question is naturally asked, how these monuments came to be covered? Was it by an earthquake, or by the hands of the builders themselves? Señor Batres inclines to

the latter view, as he found the roofs of the houses perfectly preserved, while the interior of the rooms was in every case filled with stones neatly fitted into the spaces, and joined with a clayish cement to form a compact mass. His conclusion as to the pyramids is, that they are two great temples erected to two old Mexican divinities. Each pyramid consists of five terraces, which diminished in size until the height of 223 feet was reached. Each has on one of its sides a stairway six and one-half feet in width, which makes five zigzag turns, and leads to the sanctuary or shrine on the summit. The outer surface of the pyramids, and perhaps the interior as well, was plastered over with a mortar of lime, hard and smooth, and decorated with frescoes, representing quasi-historical events and scenes.

The small mounds scattered over the area occupied by the ruins were, according to Batres, dwellings and small shrines. Each contained from six to twelve rooms, quadrangular and rectangular in form. The cornices as well as the walls were beautifully ornamented in colors. On some as many as twenty tints had been used. The doors were rectangular, never trapezoidal in form, although the latter style has been erroneously attributed to ancient American architecture. They measure eight feet in height by about three feet in width. The houses had neither windows nor balconies. The city was crossed by subterranean aqueducts constructed of stone, the walls of which were plastered with firm and smooth mortar. Near the Pyramid of the Moon, among the rubbish, there was a monolithic statue of colossal dimensions. It represents a woman with a characteristic head-dress, and wearing a necklace of four strings of beads. Travellers in Teotihuacan can find countless miniature heads modelled in clay anywhere on the freshly-plowed stretches of level land that lies across the broad, straight Micoatl, or "Path of the Dead." They vary in length from one to two inches, and invariably have nothing more than a neck attached to them. They may be distinguished by this peculiarity from those that are applied as ornaments to terra cotta vases, and from fragments of "idols." The features and peculiar head-dresses that adorn these little heads of Teotihuacan vary greatly, and this diversity has given rise to, and been quoted in proof of, the migration of tribes, of the mixtures of widely differing races, or of their succession to each other in the occupation of the Valley of Mexico. Owing to the unfamiliar aspect of some of these head-dresses, it has been asserted that they could not be even "Toltec," but must be relics of still more remote and unknown races of men. Various uses have been assigned to them, the commonest supposition being that they were in some way associated with ceremonies relating to the dead. There is probably no subject connected with Mexican archæology, except the calendar, that has given rise to more discussion. Dr. E. B. Tylor regarded them as a puzzle,

and Professor F. W. Putnam has spoken of them as the "riddle of the many heads." Desire Charnay saw in some of them Chinese and Japanese masks, and even types of the white race, proving in his opinion how many races must have been mingled or succeeded each other on this old continent.

Mitla.—About twenty miles east of the city of Oaxaca is an Indian town called Mitla, near which still remain the ruins of great edifices and palaces. The temples were built, it is supposed, by the ancient Zapotecas, and are the most interesting relics of the earlier civilizations of Mexico. The first description of these ruins was given by the Spanish priest, Burgoa, who accompanied the conquerors of Montezuma. The interior of the principal hall or room of the main palace is supposed to be the teocali of the high priest. The peculiar architecture and elaborate and grotesque decoration can easily be observed. It is astonishing to see the enormous size of the stones used in the walls of these temples. Professor Bickmore said that he had seen nothing to equal them except at Baalbec, in Syria. At Mitla are found some clay images, mostly miniature, doubtless of gods, but some of them no doubt portraits, and some of these bore a striking resemblance to the little heads found at the pyramids of the Sun and Moon in the Valley of Mexico; that is, some of them had the slant Oriental eyes, and others Ethiopian features, very different from any races we now know in these regions. The ruined temples of Mitla are covered with stucco, which was painted Pompeiian red. There is a pyramid also at Mitla, and there are some elaborately wrought sepulchral chambers.

I borrow from Mr. Vivien Cory the following extracts of his description of the ruins of Mitla.

"There are four of these places; the first is almost entirely destroyed, only some huge monolithic slabs supported horizontally upon tottering piles of broken stones remaining; while everywhere amongst the ruins have sprung up the grass huts of the Mexican Indians, and of the fourth or one farthest from the hamlet nothing but indication of the site is left, upon which the Spaniards have reared a modern church. It is in the two palaces that lie between, each slightly raised above the surrounding country on a separate eminence, that the interest centres.

"One of these is in the form of a double Greek cross, its stem running north and south, and its arms extended east and west. In the centre is the large court, surrounded on all sides by rising ground and ruined mounds of stones: there are traces still remaining of the foundations, that speak of four apartments built upon these mounds to face the court, but of these those on the west and south sides have disappeared; on the east side, only two colossal pillars and a portion of the walls remain, while to the north side the whole apartment forming the head of the cross has been spared and stands almost unharmed in its original beauty and richness. The façade of this apartment extends the whole length of the court, one hundred and forty-one feet, and its height is a little over fifteen feet: the material is freestone, the color a faint, dull, amber tint, soft as the light seen in the sky at evening. In the centre are three square portals and above these

forming the head-piece to them all extends one long and narrow panel of carving, a high relief of the natural stone on a crimson ground. The whole façade is composed of a series of these panels, from the straight line of the foundation-stone to the straight line of the summit, nine panels being on each side of the entrance, arranged in three tiers, divided by horizontal bands of the natural stone. In some of the panels, the ground retains still a faint tint of its former rich vermillion, in others, all color has subsided into the soft neutral shade of the freestone. The designs are wonderfully rich and varied, thirteen different patterns being represented on this façade alone; all these designs are remarkable for the straight lines in which they are executed and the absence of all curves. Throughout all the ruins, upon the walls of which appear twenty-three different models of carving, only two of these represent any curve in their design. In one of these two there is visible the form of the Arabic letter 'L' placed horizontally, and in the other a double curve 'S,' possibly intended to represent or suggest the snake. With these exceptions the designs are of the Greek key pattern, variations on this, or parallelograms.

"Behind this façade is a narrow court, roofless as all the courts are, and empty, save for six colossal pillars standing at even distances down the centre, and giving to this chamber the name of Hall of the Monoliths. Each pillar is one solid stone, eleven feet high and eleven feet in circumference. A low stone passage leads from this chamber northward to the smallest and richest court of all, entering it at the southeast corner. There is comparatively little trace of the destructiveness of the elements or the iconoclasm of man here. The court and all the four chambers opening from it are perfect and singularly rich in carving. The court is perfectly square and the chambers are entered from it, each through one square doorway, the roof of which is formed by a huge monolith, thirteen feet long and with a richly carved face. Of these four lintels each has a separate design. Each of the four walls has six panels, the uppermost extending the whole length of the wall, two smaller panels being on either side of the entrance, and one long narrow one above it. Between the panels stand out in high relief the horizontal and vertical edges of the freestone, forming a symmetrical frame to each panel.

"Within the four chambers the walls are designed differently, the carving running simply and evenly round the entire room in three straight horizontal bands, each band possessing a separate pattern and being about three feet in width. Beneath these bands of carving was originally, evidently, a dado of vermillion stucco, of such fine and delicate quality that the smooth and polished surface resembles marble. Portions of this delicate stucco still adhere to the crumbling walls in places and are of various colors, scarlet, black and white. In some instances this stucco seems to have been plain, simply bearing a brilliant polish, in others, there remains distinctly traced in white upon a crimson ground, a wierd, fantastic, yet handsome design, the head; half horse, half dragon, repeated in four inch squares. This latter ornamented stucco, however, does not appear except in the fourth palace, containing the Spanish church, where it is visible on the walls of one of the courts, now used as a stable for the padre's horse. Leaving the richest of the centre palaces, passing through a gap in the ruined wall on the south side, descending the elevation on which it is placed and ascending the opposite eminence, the patio of the second palace is reached. This is almost wholly in ruins; three of the façades that face the court remain indeed, but the great smooth slabs with which the walls were faced have been torn away at the base, and most of the beautiful panels of carving stripped from the front. Yet it is in this ruined palace that one lingers longest and to which one's feet return, drawn by an irresistible fascination; for this palace contains the tomb and the pillar of death.

"This subterranean vault is called by general consent a sepulchre, but there is no line of history, no record, no tradition even, left to explain to us its origin and use. It

may have been a torture-chamber, sacrificial hall, or tomb. The excavation is but a little below the surface of the court, now carried down so deeply that the light is wholly excluded. From the entrance there is enough to fill the interior with a sad, gray twilight. The vault is in the form of a simple cross lying north and south; its walls are massive and heavily decorated with panels of carving let into their sides, while it is roofed by enormous monolithic slabs that reach from wall to wall. In the centre of the cross, just where by descending a few steps one enters the tomb, stands the pillar of death, round which, the Indians say, should a man clasp his arms he must shortly afterwards die. Does not this very tradition, handed down perhaps through the long file of countless years, seem to indicate that this pillar was some ancient stone of sacrifice to which human victims were bound or chained, and from which death alone released them? As one gazes at the massive column, that one man's arms alone could not entirely encircle, the eye notices an indentation round the base where the column sinks into the floor. The stone is corroded and worn away as by the long friction of ropes or chains.

"Most of the panels do not consist of actual carving, though they produce that effect at a few yards' distance; they are formed in reality by small slabs of the freestone cut perfectly square and inserted edgewise into the wall, the remaining edges standing out at various distances from it and thus forming the different designs. This, although a work of infinite patience, does not necessarily presuppose a high stage of civilization, no instrument sharper than hard stone being required to cut the slabs of soft freestone; and that only a stone instrument was employed by the workers seems indicated by the fact that, in the large panels where the stone is actually carved, the edges are not sharp, but rounded, as if made with a blunt tool. The effect of the panels of inserted squares of stone, however simply produced, is that of the most finished and clear-cut carving and the designs themselves are rich and elaborate. There is no crudity, no harshness in them, no suggestion of the primitive savage's scratching on his native rock; but rather that of Greek work on some Athenian temple. The patterns have a complicated elegance and distinction of line that can only be produced by a people of cultivated mind and eye.

"Evidence, too, of what high grade of civilization in some ways at least they must have arrived at, lies in the gigantic stones that they have placed as lintels over their doorways and which in their immense weight and bulk have defied the greed or rage of all the succeeding races to remove or destroy. The mystery here is the Egyptian mystery of the Pyramids; that these enormous blocks of stone are resting here in positions and elevations where it would require all the modern knowledge of mechanics, engineering skill, and mechanical appliances to place them; and, as in Egypt, so here the mystery will never be solved, as the builders have passed hence and left no clue. The solid stone rests there upon its supporting pillars before the eye as it has rested for a thousand years, but how the perished hands lifted and placed it there remains its own inviolable secret.

"Leaving the palace court by the south side and following the road to the dry and stony bed of a wide river, if one turns aside here a little to the eastward he finds himself facing a Zapotecan mound, a solid base composed of earth and stones, in which are visible at intervals large slabs of cement, portions of terraces and tiers that originally formed its sides. Ascending this, from the summit one can overlook the whole valley."

LANGUAGES.

About one hundred and fifty different Indian languages are known to have been spoken by the Mexican Indians. The Spanish monks accompanying the conquerors and who went to the country soon after-