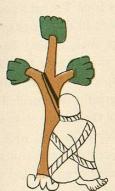
group of the hall of columns and it is doubtful that "he saw it at his ease 30 years ago" as there are no traces of a second floor, hidden doors in the lower floor, or the existence of the famous subterranean which "infernal place" was covered with "masonry."

Mr. Holmes and Mr. Saville are of the same opinion, and they are two of the most reliable explorers.

IV

hat were the causes for the destruction of these monuments (a) and in what period did it take place? (b)

In extensive and serious works, as well as in novels and similar books, an error has been made, of which we are ourselves responsible, in a work recently printed ¹ in them it is asserted that King *Ahuizotl*, indignant at the cruel and treacherous death committed by the inhabitants of Mitla on some Nahua *pochteca*, had sacked this City, passing its inhabitants through with knives and burning their magnificent palaces.



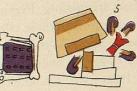
Regarding the treacherous death of the pochteca this is perfectly true; but it happened in Mitlancuauhtla, a place situated between Coatzacoalcos and Tehuantepec, although belonging to the Tzapoteca.

This did not occur under the reign of Ahuitzotl, but in that of *Motecuhzoma Ilhuicamina*, who in effect cruelly punished said act. (Tezozomoc. Duran.)

The rivalry between the Tzapoteca and Mexica was increased with the lapse of time;

as can be seen in the "Mendozino Manuscript" (Part First, Ilustration 16, Fig. 5) Ahuizotl made Mitla his tributary, after having destroyed Oaxaca.

Undoubtedly to this event, the Dominican Rios refers, on treating of the "Telleriano-Remensis Manuscript" when on page 40 and following, in the first left hand column, he wrote: Year of two rabbits and of 1494, the



I Compendium of the General History of Mexico from prehistoric times up to the year 1900, written by Dr. Nicolás Leon. *Mexico and Madrid*. 1901.—2. 4th Com. pp. 576 and 296 ilustrations taken from Manuscripts of antiquity, authentic photographs and paintings by the most well known Mexican and foreign artists.

Mexicans took the town of Mictlan, which is in the Province of Huaxaca.

The hieroglyphics of the place give us the name of Huaxyacac, and that of Mitla does not appear, nor do they denote that it was destroyed. It is true that in the above mentioned "Mendozino" manuscript we can see the temple being thrown down and smoke and fire coming out of it; but this is only the conventional manner of that manuscript to indicate that the town was taken with arms.



In the "List of tributes" forming the second part of this same manuscript (ilustration 45 Kingsborough Vol. 1st) it is seen that Mictlan with other towns, contributed what is there mentioned and especially grains and cloths of rich design. If said

town had been completely destroyed it could not have paid any tribute.

To further corroborate this conjecture, we will according to Motolinia refer to what was said by Fray Martin de Valencia who visited Mitla in 1533. On returning with his companions from Tehuantepec, they "passed through a town called Mictlan, which in this language means "hell," where they found some buildings such as they had never seen in any part of New Spain; amongst them was a temple of the Devil and place for his ministers and especially a hall with ornamented vaulting. The work was of stone greatly ornamented; there were several doors, each one being formed of three large stones, one on each side and one above, which were very thick and wide: there was another hall having round columns, each one made of a single stone and so thick that two men having their arms around a column could barely touch the tips of their fingers: they were about 30 feet high."

In Palace No. I which is the most ruined one as it is nearest the town, there are traces of fires in some of the walls and at other places these are missing. Perhaps this was caused by a fire started amongst the furniture of those inhabiting the place in times after the Conquest; even today it is the only one used by the Indians as a dwelling and their huts are built on the ruins.

Palace No. 2 is known to have been destroyed; No. 3 is the best preserved one and No. 4 forms parts of the parish church and rectory. None of these bear signs of fire.

The hall of columns in No. 3 shows signs of having been used as a dwelling; in some places there were partitions of burnt bricks.

I have been told by an intelligent person from Oaxaca that there are documents in existence which prove that it was used as a dwelling and as quarters in times of Colonnial dominion.

The steps of the so-called "Calvary" and the fences and walls of several ancient houses in Mitla are made with stones taken from these palaces, above all from palace No. 1.

he annexed panorama shows the ruins all together, and their distribution is shown by the plan also annexed; on treating of them we will always refer to both.

To facilitate their methodical examination I have thought it convenient to number the buildings by groups, and only divide one of these to avoid confusion.

The one on the North side of the town is No. 1; No. 2 is the hall of crypts; No. 3 is the hall of columns and No. 4 that of the rectory and church.

The panoramic view is taken from the East, having the east side of palace No. 3 well in view; it is complete and satisfactory, giving an agreeable impression and by it the whole of the buildings can be observed.

Group No. 1 situated lower down than the rest and at some distance, is formed by three quadrangles.

No. 2 is formed of one quadrangle; No. 3 has two, the best preserved ones; and No. 4 very similar to No. 1, has 3 quadrangles.

This rather disorderly grouping, which is very inconvenient, if considered in relation to the Teocallis or temples, must have been made as a defence against possible inundations of the waters from the neighboring mountains, as according to Holmes we must not be surprised if in time the foundations of other buildings are discovered, of which palace No. 3 will become the center.

The mass of these buildings occupies an area of 500 metres from South to North and 300 from East to West, the total surface ground being equal to 150,000 square metres.

Its location is exceptionally uniform: the walls in no case vary more than 4 or 5 degrees on the magnetic points indicated by a compass that approaches from 1 to 2 degrees.

The materials used are stone and adobe (mud bricks) and also wood

which must have been profusely employed; the stone is trachyte which is abundant is this region.

Cement of lime and sand can be seen to have been used in the roofs, floors and pavements.

The masonry work is of a superior grade; and one has to admire the precision in placing the stones and the stability of the whole work.

No explanation can be found for the irregularity in the plan of the halls when on the other hand the stones are cut so exactly for the greek patterns. Some travellers have affirmed that no cement or mortar was used to place these stones; but this is only partly true. It does appear that the desire of the builders was to make the joints so perfect that they could not be noticed with the naked eye, and in truth at several points this was perfectly done. At others, above all in the mosaics and near the large door-frames, a large amount of mortar was used to fill the cavities, even reaching the surface.

Sub-Construction. The pyramidal construction was not considered of great importance amongst the Mitla race; two of the principal groups of buildings rest on the ground without any modification whatever or else a very slight one. There were five quadrangular groups having sub-constructions. The walls of the terraces were almost vertical and were covered with cut stone and at some places, with cement or chalk.

Their floors were of cement and perhaps partly of stone.

The distribution of these buildings, as seen in the respective plan may be reduced to three styles of groups:

- 1. A simple quadrangle of symmetrical figure, in which four separate buildings form an open patio, only open at the corners:
- 2. Four buildings joined at the angles form one patio, with a continuous walls:
- 3. The grouping of same is so narrow that it forms one sole building, containing four departments that surround a patio; two of its sides form small halls. There can also be combinations of the first and second groups, in which one, two or three corners are left open.

The varied grouping of these halls also gives several manners of access to the patios; there are no signs of any *outside doors* having existed. Entrance to the patios was through the openings between the halls on the corners, but this cannot be properly called a door.

The patios with continuous walls have an entrance through narrow passages found near some other patio.

Much could be said regarding the building of the walls and the profile they present, but the space in this book does not allow of same and the works of Holmes should be studied to that end.

A remarkable detail of these constructions are the door-frames, made of large monoliths.

The columns are also worthy of admiration, as they are also monolithical and give their name to the hall they are in, in palace No. 3; they are conical with a lower diameter of 0.80 to 0.90 and 0.50 at the top. Their height above the ground is of 3.30, and part of them, about 0.70, is embedded in the ground.

Their approximate weight is of 3,200 kilograms each.

One of the most controverted points is the manner in which they were roofed. Burgoa clearly says that they were roofed with large stones; Violet-le-Duc states that it was done with wooden beams, which opinion is accepted by Holmes. I am inclined to believe that both were used. Engineer Alvarez has I believed settled this; he states as follows:

"Roofs. In the hall of columns on the higher portion of the walls can be seen the traces of levels on which the materials of the roofing must have rested; the height of same above the ground is of 3.60; in the interior grecian hall on the East of the inside patio and in the Northeast angle, we can clearly see the holes for the beams which undoubtedly formed the roofs; these holes are commonly called "encorazados;" flat stones are placed vertically leaving a space of 0.30 wide by 0.30 high and then, another flat stone forms the box for the beam to enter, being 0.84 deep; furthermore, we can still see laterally in the wall the sign of the curved face of the beam, and as the hall is 2.50 wide, the beams must have been 3.18 long or nearly 4 varas of the Spanish measure. An important discovery for the determination of the roofing, was a hole made in a stone as can be seen in the higher part of the Eastern wall of the inside greek patio, according to a photograph by Holmes and in that taken by my sons; having carefully studied this stone I found that the hole corresponds to the level of the roof, and measuring its distance to the inside, it gave 0.62 or say the dome of the beam and thickness of the shell or covering of the roof. comprising the platform and curvity of the roof area; undoubtedly said hole served as a canal for drainage of water. Regarding the hall of columns, as the height of the plane above the ground, is of 3.60 and the height of the colum 3.30, the result is that the stone $\frac{2}{3}$ of a vara wide which rested on the columns, must have been 0.30 high or a third of a vara of the ancient Spanish measure, which columns had a diameter of $\frac{2}{3}$ of a vara; and on which stone the beams of the roof were laid.

Viollet-le-Duc committs an error in supposing that there were pieces of beams on each column, probably this error is due to the fact that he did not have the data regarding the real height of the columns and walls. "

The stone roofing is to be seen used in the passages communicating the hall of columns with the closed patio (palace No. 3) and in palace No. 1 the hall communicating the second with the third patio.

The beam roofs must have been covered with cane, or sticks on which was laid a covering of debris mixed with others of cement, until forming the surface of the roof.

Mr. Alvarez with undisputable arguments, based on engineering studies, proves that the hall of columns could never have been roofed with large stones, nor that there was ever any upper story in any of the buildings.

The decoration of these consisted in paintings, mosaics, and sculptures.

The colors used were white and red in different tints; the painted surfaces present a remarkable smoothness and regarding the origin of these colors nothing is known, but it is believed that they were made with lime mixed with red iron oxides. The most remarkable thing in this kind of work are the hieroglyphical wall paintings which can still be seen on the door frames of one of the halls in palace No. 1 and in the so-called "stables" of palace No. 4. It appears that they were done by first smoothing off the superficial face of the stone which was afterwards covered with a layer of gray color. This was polished again and on top of it the figures were painted or outlined with a brush and with dark red lines, said figures remaining of gray color and as if cut out of the red background.

The mosaics are the most remarkable decoration of these buildings; some of them are formed of small stones, perfectly well cut and polished, so much so that it appears as if they were laid on without

any cement whatever; others of these Greek patterns are worked in the same stone, as can be seen in some monolithic door frames.

All are arranged in the panels, covering the outside surface of the buildings, and on the inside of some of the halls, they form continuous bands that go around the hall. The projecting part that forms them has traces of white color and their surface still retains signs of the other colors used.

The floors of the patios, halls and inside area of some of these that have no stone mosaics, show a thick layer of cement, perfectly hard and polished, painted with dark red.

The surface that was to be so covered, was first levelled with congolomerated cement of 4 to 5 inches thick, and on top of this was placed another layer of 1 to 2 inches thick.

There are few stone sculptures found in these buildings; it is believed that the holes seen on the front of some of the halls served to place heads of animals, made of stone, with an appendix that entered into said holes.

A remarkable particularity to be seen in nearly all the halls, is a small niche in the wall at the back of same which was always turned towards the entrance and is about 5 or 6 feet from the ground. It is about 2 feet long, 18 inches high and 20 inches deep, formed of cut stone.

Nothing is known as to its object but it is believed that it served to keep sacred objects, images or symbols to be worshipped on entering the hall.

In concluding this brief description of the ruins I only have to add something as to the crypts or subterranean tombs found at the foot of the hall in palace No. 2.

Its plant is in the form of a cross more or less like the Latin one, and the head and arms of same serve as chambers, the entrance being at the foot. The panels are ornamented with greek patterns and paintings; that of the North hall has a thick monolithical pillar in its middle portion commonly called the *pillar of death*.

Amongst the visitors there was the custom of embracing said pillar, and whoever could embrace a greater extension of same, was the one who would die first.

On my ridiculing this fable, in the expedition I made to these ruins in 1893, accompanied by my brother Francisco, my two younger sons

Manuel and Carlos and the photographer from Oaxaca Mr. José María Monterrubio, we all embraced the pillar of death with the result that Mr. Monterrubio was the one who could grasp a larger extension, and he now rests in peace.

Near the stream of Mitla towards the South, there was discovered in 1892 another cruciform crypt and poorly ornamented with greek patterns. From it were taken out human bones together with a necklace of gold beads and other objects.

In the Hacienda of $Xag\acute{a}$ to the east of the valley of Mitla, there is another one very remarkable for its ornamentation, the paintings being intact.

The one discovered by Mr. Marshall H. Saville at the foot of the Eastern hall in palace No. 3 is also remarkable.

But the best of all is that discovered by Mr. Leopoldo Batres, Inspector and keeper of the archaeological national monuments, on the mountain called *Guiarú*, 4 miles to the east of Mitla.

The ornamentation entirely composed of greek patterns is beautiful and reminds one of that contained in the halls of the closed patio in palace No. 3.

owards the East and West of the palaces are to be found some pyramidal platforms, made with adobes (mud bricks) enclosing one or more patios. It is not known if these were simply pyramids covered with a thick layer of cement, or if they formed the base of other buildings similar to the palaces.

They are marked on the plan with letters A and B.

On the eastern platform of group A, there is a chapel called "Calvario" and on a tablet embedded in an arch in the center of same we read that it was terminated on April 20th 1671, under the authority of Diego de Robles.

The stairs it used to have was formed of cut stones taken from the covering of the platforms from the buildings of group No. 3; Mr. Leopoldo Batres in this winter of 1901 had them taken away and replaced on the pavement.

Fortification.—This is found at ¾ of a league on the large summit of a rugged rock, which rises above the range of hills that runs about a league, at a height of 200 varas. The fortress constructed on this summit extends about half a league and forms several protecting angles and receding points with the addition of several curtains. In front where it is accesible, its defence consists of a double wall; the first is an ellyptical curve of sufficient width on which there were still found piles of pebbles to be hurled by the slingers in case of assault; in the centre of this first defence is the entrance, cut obliquely to avoid the enemies projectiles from entering. The second which at its ends joins the precincts of the fortress, is higher and forms a kind of tenaille; it has its door separated from the first by an ample platform, and besides a parapet where other piles of stones were found.

The angles of the tenaille, which opens on both sides, form in their centre a fortress of sufficient space to gather a certain number of warriors to defend the entrance or to advance on the besiegers; and

besides on that front they had some loose rocks of about one vara in diameter, balanced on the upper edge of the talus, so that they could easily throw them on the assailants. On the inside of the ellyptical wall there are still to be seen the ruins of edifices which must have served to lodge the troops and on the part facing the front entrance there is a false outlet, whose object probably was to facilite retreat or supply the fortress in case of necessity with men, provisions and water.

We do not think it exaggerated to state that the Tzapoteca for tress, which approximately must have been built in the XII century of our Era, was in no way inferior to the European ones of that period.

Regarding the pyramidal constructions at Mitla, Dupaix made drawings of them and speaks of their precincts surrounded by platforms which he thought were the foundations of temples or courts of the palaces for priests. They are in reality well fortified places; one of them closes three sides with pyramids of two stories and the other one with one of four stories; the steps of this one looks towards the West; it can be seen that all the building was covered with stones cut in squares, and in the flooring can be seen coverings of stucco and painting of red lead. The steps of all the pyramids gave on to the central fortress and in the middle of same there is a large masonry kind of altar with its steps fronting those of the principal pyramid. The other fortress is similar, with the sole difference that the platforms of three sides are of one sole story and the fourth one consists of two, being built of adobes. (Chavero.)

The quarries from where the stones were taken to cover the walls of the buildings, are to be found situated on the descent of the North side of the valley of Mitla; two leagues towards the East of the palaces. Large blocks half pulled out can there be found, others rounded and some with their surface polished.

The instruments for this work can there be seen strewn about.

It is very interesting to read Holme's work regarding this matter and the technicism employed, from the cutting of the stone and the instruments used, up to the carryng of same for buildings.

The architecture of Mitla, represented by these notable buildings, according to Holmes, is greatly due without doubt, to the loneliness of the people that built them and their surrounding circumstances.

Dr. Antonio Peñafiel has applied the ornamental style of these

buildings, on the pedestal of the statue of *Benito Juárez*, which monument is today placed on the Nezahualcoyotl drive of the capital City of the State of Oaxaca.

Copper utensils.—Among the characteristic utensils of art in Mitla, there exist samples of a kind of axe, objects in the shape of a greek "tau" made of beaten copper. They are commonly found in the tombs and in such numbers that a friend of ours who owns a small farm near Cuilapa was able to have the cylinders of his sugar-mill made with them, for grinding sugar-cane.

They are of diferent sizes and it is thought they were used as money. Mr. Holmes thinks that in view of their shape and thickness they were used as head ornaments, being well polished; or they may have been religious symbols.

We saw these instruments, which are vulgarly called "tajaderas" in Oaxaca, used in the town of Mixtepec to make "ollas," "cazuelas," (kitchen pottery), and other objects of clay.