

used at all, the color being applied directly to the plaster in blocked-in masses, which were subsequently outlined with a heavy black line. This unusual technique has been found nowhere else in the city up to the present time.

Both benches show various departures from the usual fresco treatment, the most striking of which are a lavish use of masses of dark paint laid on a red ground, resulting in a rather unique lack of contrast, and the practise of covering the entire surface, preliminary to painting, with a glutinous yellow-white mixture before the subsequent colors were applied. This gives a marked opacity to these particular frescoes, in strong contrast to the clear water-color appearance of the frescoes in the Temple of the Warriors.

A study of dress and ornament has proved of great interest, but lack of space limits even a brief description of these details. The monograph on the Temple of the Warriors, now in course of preparation, will include a comparative study of the subject-matter of the frescoes, as well as detailed analyses of the colors employed, and other problems of technique which have arisen in the course of the work.

Report of Jean Charlot on the Sculptures of the Temple of the Warriors and the Temple of the Chac Mool

As the investigation of no new architectural unit was carried out in 1928, the time of Mr. Charlot and of his assistant, Mr. Houser, was devoted to a completion of work already under way at the Temple of the Warriors and adjoining structures.

Drawings of the sculptures on the columns of the Temple of the Chac Mool, as well as a few left in the Temple of the Warriors, the dais of the North Colonnade and the dais of the Northwest Colonnade were completed this season. The designs on the columns in the Temple of the Chac Mool were described in the Year Book for 1927,¹ but only a few had been drawn at that time.

This season the designs on these columns were copied in line drawings with color notes added in five flat tones, with a view to securing standardization of color reproduction in the lithographic plates. Thirteen drawings with the corresponding color notes were made which, with the seventeen copied in water color by Mrs. Morris, make a complete record of the bas-reliefs that have survived in this temple.

The columns in the Temple of the Warriors had been copied in 1926 in line drawing, independent color notes on transparent paper having been made at the same time. These color notes were transferred this season from the transparent sheets to the drawings themselves, after having been reduced to the five standardized tones adopted for lithographic reproduction.

Another important piece of work concluded during the present season was the painting of the front of the dais in the North Colonnade. The two shorter sides of this dais had been copied in oil in 1927. The front, measuring more than 16 feet in length, was copied this season, also in oil, natural

¹ See Year Book No. 26, p. 248.

size. The two shorter sides of the dais in the Northwest Colonnade had been copied in 1926. Owing to the extensive copying in the field, which has been going on since then, and the technical improvement resulting therefrom, it appeared advisable to retouch the copies of these two sides, painting directly from the corresponding originals.

In addition to the foregoing, Mr. Charlot made drawings as well as water colors of a number of disassociated sculptured units, the original provenience of which is unknown.

Two-color copies were made of the remnants of the beautiful panel composed of flowers and animals found in the fill of the pyramid of the Temple of the Warriors. The sculpture is in rather high relief and presents unknown flowers on graceful sinuous stems ornamented with bud-like leaves. Different insects and birds feed upon them. Although much stylised, the butterflies are still recognizable as such, their wings transformed into two flowing panaches of quetzal-like feathers, the head, with its extended proboscis, retaining many of the original entymological characteristics. Among the birds which could be identified are the crested parrot and the humming-bird, the latter in its characteristic position of sucking the flower while on the wing.

The relief, vividly colored, is in strong contrast to the plain white background. A few stones were found, which are doubtless parts of the same panel although they show no coloring, being done in black and white only. As this duochrome treatment was a preparatory process before color was applied, it is probably to be assumed that this panel, like many sections of the friezes on the pyramid of the Temple of the Warriors, had been completed all but its polychromy, and was then discarded because of some subsequent architectural modification.

The fragments of the serpent-columns belonging to the Temple of the Chac Mool, uncovered in 1926, consist of parts of the two tails and the two heads. The better preserved tail was copied in colors, while a line-drawing was made of the other. Both present, in addition to the usual tail-rattles and feathers, panels consisting of three Atlantean figures each—the figures bearing representations of shells and turtles.

The more important of the two heads, that still having a section of its corresponding columnar shaft, was also copied in color. Its style is strikingly different from that of the similar heads in the Temple of the Warriors. Although the subject matter is the same in each case—the plumed serpent—the treatment, which in the earlier temple is more of an esthetic abstraction, tends in the later Temple of the Warriors to become fairly realistic. The different parts of the serpent's head are represented, but without interfering with, or modifying the primitive squareness of the original block of stone. Here is an interesting stylistic link with some of the sculpture at San Juan Teotihuacan, especially the figure of an ocelot made of alabaster, and a heroic sized goddess in the National Museum at Mexico City.

On the serpent column from the Temple of the Chac Mool, the feathers are painted red; the fangs, of semi-spherical shape, are pink. The outline of the mouth, as well as the scrolls issuing from it, is yellow. The belly

of the snake is yellow and the rattles are blue. A narrow horizontal band of blue and yellow encircles the body at about one-third of its height.

Three line-drawings were made of sections of the three friezes running around the pyramid of the Temple of the Warriors, the examples chosen, illustrating the different elements (men holding ceremonial bars, animals and birds) found on each band. This last work brought out a new fact, showing the ingenuity with which the builders used their wide knowledge of perspective. While on the lowest frieze, which is at the level of a man's eyes standing at the base of the pyramid, the feet of the reclining figures rest directly on the cornice just below them, in the middle and top friezes there is a space left between the feet and the cornices below them. This was done so that, in the diagonal perspective resulting from looking up at these friezes, the feet of the figures would not be hidden by the cornices projecting below them, but appear to rest directly on them. So many and so diverse are the successive layers of paint on these elements, that exact color reproduction would only be misleading. It seems that in the case of the last coat at least, the human figure and its accessories were painted blue, except for the belt, which is green; the eagle is black; the jaguar, yellow; and the unidentified animal which has been called the "woolly" is treated with a hachure of black and white to represent fur. The background everywhere is red.

A copy was also made of the charcoal sketch of an Atlantean figure, found on the unpainted base of the south wall of the sanctuary of the Temple of the Chac Mool, where the bench had formerly stood. This figure is of especial interest, in that it may be the only example of a working drawing for a piece of stone sculpture before execution, which has come down to us. All the field notes necessary for the preparation of a report on the bas-reliefs of the Temple of the Warriors were made, and two-thirds of the text itself was completed before Mr. Charlot left Chichen Itzá. Also, about 200 line-drawings were made, to be used in illustrating the text, in addition to the copy for the full-page illustrations and color plates.

Report of Paul S. Martin on the Temple of the Two Lintels (Station 7)

The repair of the Temple of the Two Lintels was completed on April 28. During the 1927 field season the four exterior walls and the two interior partitions had been reerected to the level of the lowest member of the medial cornice, that is to say, to about half their original height. During the current season, these were completed and the building roofed over.

When work was started on this building in the spring of 1927, it was evident that all the façade above the medial cornice had fallen, with the fortunate exception of a single section of the back wall, which stood to within two courses of the original height. This section served as a pattern for the reconstruction of the entire upper zone, since here, *in situ*, was a complete cross-section (lacking the two courses above mentioned) of the original façade—cornices, inter-cornice element and the decorated panels of the upper zone. There are two types of these decorated panels which alternate with each other clear around the building, the first consists of X-shaped stones, separately cut and fitted together like a mosaic, giving the appear-

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