

A Tall Story

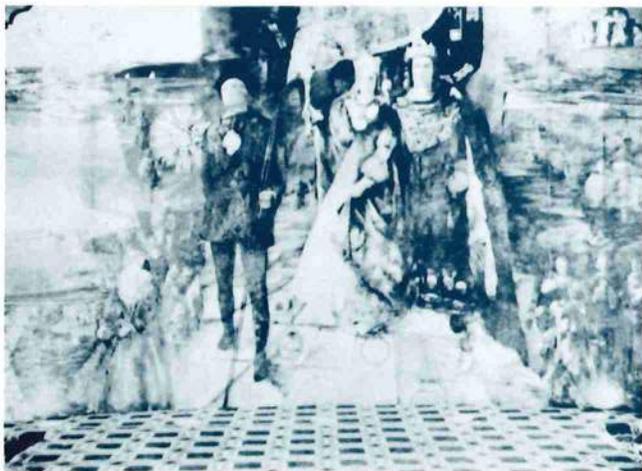
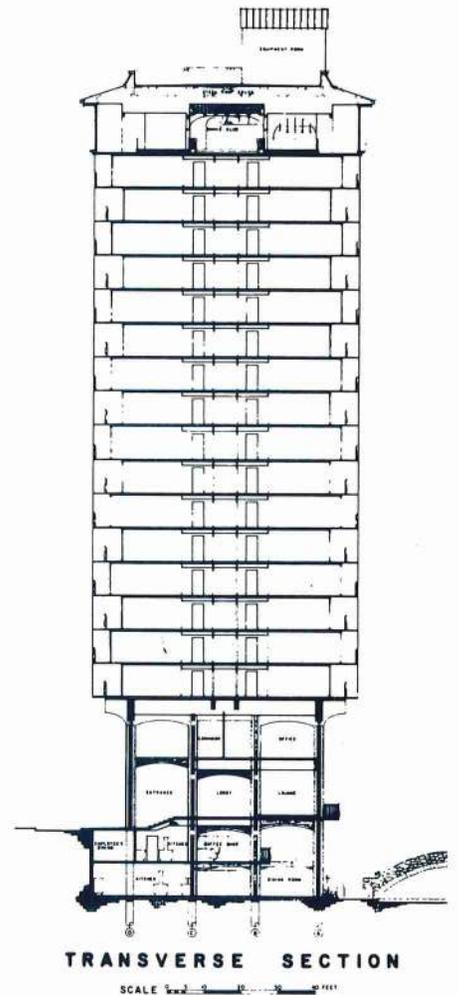
Reprint from original
Hilton Palacio del Rio press kit (1968).

The Hilton Palacio del Rio Hotel is a milestone, not only for the City of San Antonio, but for the modular construction industry as well. Built by H.B. Zachry Company across the street from the site of HemisFair, the Texas World's Exposition of 1968, the 500-room deluxe hotel was designed, completed and occupied in an unprecedented period of 202 working days. This is an achievement of which H.B. Zachry, Sr., and each of his workers can well be proud.

Of the Palacio del Rio's 21 stories, the first four were built of conventional, reinforced concrete for support facilities; at the same time, an elevator and utility core, were slip formed to a full height of 230 feet. From the fifth floor to the twentieth, modules were stacked and connected by welding of steel embedments.

The 496 rooms were placed by crane in 46 days. The twenty-first floor, an area which contains a grand ballroom and other required public space, was constructed of light steel and enclosed by an aluminum window hall. The building is served by six elevators (four public and two freight), has a swimming pool on its fifth floor and occupies a half an acre site in downtown San Antonio.

The hotel's room modules were pre-cast from light-weight structural concrete, and before arriving at the construction site, each one was fully decorated, including color TV, AM/FM radios, beds, carpeting, bottle openers, automatic coffee makers, ash trays, etc. The units are 32'8" and 29'8" long, 13' wide and 9½' high. They weigh 35 tons each and were manufactured at a plant located eight miles from the project site.



Spanish mural in Palacio del Rio's new Cortes Real Ballroom

An oil-on-canvas by Mrs. Margaret Putman entitled "Glorious Saga of Spain" is the focal point of the Cortes Real Ballroom. The mural unfolds Spanish history from earliest record through the featured discovery of America under Spanish auspices and subsequent Spanish influence on the western hemisphere.

Tall Story continued

Zachry set up a production line consisting of two rows of eight room-size forms that produced eight complete units daily. The working crews were comprised, as an average, of more than 100 men who completed a designated task 496 times.

The casting process was started by coating the permanent, hinged, outer forms with a forming release agent. Reinforcing steel for floors was added, and in 30 minutes six and a half cubic yards of lightweight ready-mix concrete were poured to form a five-inch thick floor. When the concrete had set, it was hard finished and was allowed to cure for several hours. After that, crews placed steel reinforcing for the walls and ceilings, installed plumbing, electrical conduits and positioned block-outs for doors and other openings. In 30 minutes, fifteen and a half cubic yards of light weight ready-mix concrete for walls and ceilings were poured and vibrated into place.

Each module received a code number

which keyed its position during the whole process, including date of erection and its exact placement in the building. Once on the site, a 350hp crane equipped with a special 36' diameter ring base and a 270' boom maneuvered them into place. So that they could literally be "flown" into place without turning or dangling in mid-air, a Sikorsky helicopter stabilizing tail section was attached to each room at job site. The tail, rotor, engine, magnetic compass and a set of automatic con-

Helicopter stabilizing tail sections steadied "flying" rooms.

trols were fastened to a platform attached to the top of each unit. By giving the room a pre-determined magnetic heading and by "feathering" the vertical propeller, the operator atop the "flying" room controlled the direction of each unit as it was being hoisted to a precise location.

An average of 17 modules was placed each day. Because the module placement

had to match the elevator shaft, each unit had to be set exactly on the unit underneath, at a precise elevation, with a maximum working tolerance of $\frac{3}{4}$ " to prevent creeping. Plumbing and wiring conduits were run up a 20" chase between modules for quick connections to individual rooms. In their final location, the reinforcing rods, extending from the lip at the corridor end of each room, were welded together. Forms were then placed under the interlacing rods and concrete poured to join the extensions in order to form the corridor's floor. Removable panels in the corridors were then added to close the 20" chase which provides access to the continuous vertical mechanical and electrical chaseways.

With its unique shape enhanced by the glow of the yellow balcony lighting at night, the Hilton Palacio del Rio Hotel reminds one of a golden apiary and also of Zachry's first major venture in the field of modular construction; yet, only as a first step in its permanent search for new horizons to conquer . . .



Photos above and to the right were taken during construction of the Hilton Palacio del Rio.

