LETTERS FROM FRANCE

2,200 Tonnes of Plaster for the Basilica of the Peace

(The following articles are reprinted from the magazine Platre Information, published by the Syndicat National des Industries du Platre, Paris, France. The translation has been edited. We are indebted to Philip Certosini, Miral Insulation, Montreal, Quebec, for his assistance in translating the articles from the original French.)

At the time of its opening, the Basilica of Yamoussoukro on the Ivory Coast received a great deal of publicity. Its construction was likened to that of St. Peter’s Cathedral in Rome; it combines architectural tradition with innovative technique.

In the heart of the Ivory Coast, in Yamoussoukro, the city of President Houphouet Boigny, the Basilica of the Peace seems almost miraculous in appearance—a monument to the renaissance of Christianity in Northern Africa. The architect, Pierre Fakhoury, wrote that it was designed to carry the message of Christianity across half the world.

Indeed, everything about it is gigantic. The nave, with a height of 100 meters (more than 300 feet) and a width of 100 meters as well, can accommodate 18,000 people. And the dome, produced by Eiffel Metal Construction, reaches 153 meters (almost 500 feet), the equivalent of about 60 stories.

The greatest part of the work was entrusted to French enterprises: Dumez for the exterior work, Entrepose for the scaffolding, and Eurostaff for the peristyle (the open space surrounded by a colonnade), the dome, and the interior rooms. The site with its building materials alone required one year’s work and 2,200 tonnes (about 2,450 U.S. short tons) of molded plaster.

From a base of 58 meters (180 feet), the dome consists of 14,000 square meters of plaster materials in the form of painted curtain wall panels, each three or four square meters (10 to 12 square feet), hung on the metallic structure with hooks sealed in plaster. Moreover, the panels are perforated to assure a good interior acoustical insulation.

The church square and the peristyle colonnade, whose columns are 24 meters (about 75 feet) high, represent 65,000 square meters of plaster materials. To place the column pieces at that considerable height, special scaffolding was erected by Eiffel Metal Construction. In the Basilica, a scaffold of 50 tonnes was slid along the floor (capstan style) on cushions of air.

For the colonnade, it was necessary to have a mobile scaffolding, specially constructed by Entrepose and composed of a tower of 12 tonnes mounted on a cushion of air. The colonnade is comprised of 12 domes and 12 interior arches. Construction required moving the special scaffolding 24 times.

The church square, 15 meters by 15 meters (approximately 50 feet by 50 feet), around 45 tonnes in weight, was mounted on 16 air cushions and had to be shifted seven times. The casings of the plaster ceiling suspended at 7-1/2 meters (about 25 feet) required 320 tonnes of metal framework.