

## 1. BACKGROUND

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Mexico has a centuries-long history of impressive construction, even though the methods were not particularly innovative. The great pyramids of pre-Columbian times were basically built from a large volume of earth that was brought to the site, piled and tamped down. This was covered with a facing of stone and mortar to protect the structure from the elements. Facing methods may have varied from culture to culture, but the basic principle remained the same.

The few closed-in spaces were covered with very elementary wood-beam roofing. It was only in the Mayan era that stone roofing was developed. Called the "Mayan vault" or "false arch", the method was not very efficient.

Pre-Columbian building procedures practically fell into oblivion because they were not appropriate for the type of constructions wanted by the Spaniards. The new buildings, such as palaces and churches, were built with European methods. Only a few pre-Hispanic techniques — for masonry, waterproofing and mural painting — were used during the 16th century. Very little of this field has yet been researched.

Construction was never of a high quality. There was a scarcity of professional architects and qualified labour. In addition, the authorities were not able to enforce compliance with existing ordinances. These conditions persist.

In Mexico City, the Spaniards used log pilings to increase the ground-bearing capacity and to prevent the buildings from sinking into the muddy soil. Aztecs did the same, but there is no proof that the Spaniards learned the technique from them; it is found throughout the world.

No special method was developed to strengthen buildings against earthquakes. In areas such as Oaxaca and Chiapas, where earthquakes are stronger and more frequent, the solution was simply to make thicker and lower structures.

Some building methods were typical of certain regions. The dry climate and abundance of good clay in the Guadalajara and Bajío regions made "Catalan vaulting", that is, very flat vaults and domes made of brick and without centering, possible. Other differences resulted from the use of

regional decorative materials, for example, reddish tezontle-stone façades in Mexico City, brightly coloured tile and white stucco ornaments around Puebla and Tlaxcala, and delicately carved limestone façades in Querétaro and San Luis Potosí.

Regional differences have gradually faded since the 19<sup>th</sup> century as the principles of modern architecture spread throughout Mexico. At the same time, the new materials and procedures, such as iron, steel and concrete, became more commonly used, contributing to the disappearance of regional techniques.

Political, social and material progress allowed for a significant improvement in building standards at the beginning of this century, but these advances were lost due to the 1910 revolution. Since then, the demand for new buildings has usually exceeded both the material and human resources available. This has translated into lower architectural and construction quality.

Even though construction techniques are much the same as those used in developed countries, economic policy over the last four decades has offered little incentive for manufacturers to broaden their products lines. There is little variety in pre-fabricated housing, steel structures, flooring materials, lighting, bathroom and hardware fixtures, aluminium and wood doors and windows. These areas offer an interesting market to be explored by foreign suppliers.

## 2. MEXICAN ECONOMY

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In 1988, Mexican authorities implemented a stabilization program, called the Economic Solidarity Pact, to reduce the inflation rate. The Pact features traditional austerity measures, entailing tight fiscal and monetary policies, and unorthodox measures, such as price, wage and exchange rate controls. This cornerstone of Mexico's economic policy, recently extended to January 1993, has resulted in a drastic reduction in inflation, from an annual rate of 159 percent in 1987 to 19.7 percent in 1989. Inflation rebounded to 29.9 percent in 1990, but was brought down to 18.5 percent in 1991 and is expected to be 10 to 12 percent in 1992. At the same time, the peso-dollar devaluation rate has been set at Mex\$0.2 pesos a day, 2.4 percent per annum.