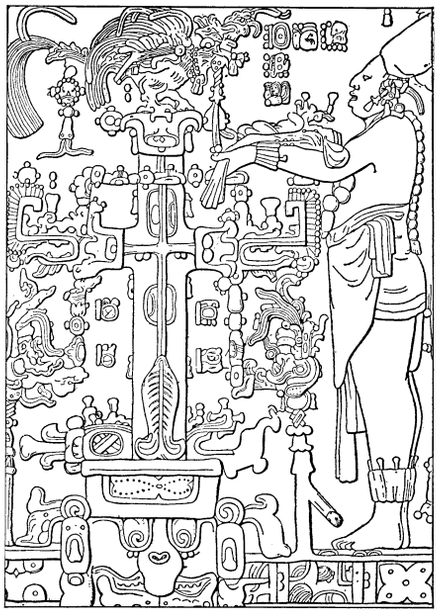

CROSS OF PALENQUE

A line drawing representing a portion of the tablet of the Cross.

people who were the origin of the Mayan civilization are supposed to have left the Mexican regions and spread through Central America. They founded first the large city of Copan in Honduras and then Quirigua in Guatemala and Palenque in Chiapas and then spread to populate the banks of the great Usumacinta River until they reached Tabasco, and thence they proceeded to Campeche where they founded great communities whose ruins can be seen. Then they went on to Yucatan, leaving along their course monuments whose ruins still cause the admiration of the traveler.

This route is in perfect accord with my thesis, in the sense that there was no Old and New Empire but only different places where branches of the primitive group settled, and it is well to have in mind that not the group as a whole migrated, but colonies, so to speak, each went their own way.

Science News Letter, November 4, 1933

Quiet since the first few days of the month, the Caribbean celebrated the departure of October by breeding another pair of twin tropical storms, one of which passed on up the Atlantic seaboard, bringing an abnormally warm addition to Indian Summer. This pair of storms, neither of which is as severe as some of the season's earlier hurricanes, constitute numbers 19 and 20 of the 1933 family of tropical disturbances.

CHEMISTRY

New Rayon Fiber to Retain Strength Even When Wet

NEW USES for cellulose that will greatly extend its present wide industrial applications were predicted by Dr. Gustavus J. Esselen, Boston chemical enginer, in an address before the Franklin Institute.

This fundamental stuff of all plants and trees, contained in cotton, wood, cornstalks, etc., and already used in making paper, rayon, guncotton, lacquers, non-shatterable glass, transparent wrappings and a host of everyday things, will find applications that have not yet been visualized by anyone, Dr. Esselen said. He declared that a special type of rayon fiber that rivals silk in appearance and strength even when wet will soon be developed commercially. So far other characteristics of this experimental cellulose fiber have prevented its wide introduction into the textile industry.

Technical literature and patents are recording at an increasing rate new chemical derivatives of cellulose, many of which Dr. Esselen expects will appear in industry within the next five or six years. Already cellulose esters are available that have very unusual resistance to both acids and alkaline solutions, and reports are being heard with increasing frequency that new mixed esters with greatly improved properties are being developed.

There is an increasing popularity of synthetic fibers made from cellulose acetate instead of from the regenerated cellulose of which most of the "artificial silk" of commerce has been made. The cellulose acetate process for making rayon was the last of four methods to achieve commercial importance and at first its high cost deterred its wide use. Recent price reductions, Dr. Esselen explained, have allowed it to come into wider markets.

"When rayon, or artificial silk as it was then known, first began to attract attention in this country, a committee of silk manufacturers was appointed to study this new competitor and report on its possibilities," Dr. Esselen said. "After careful deliberation it finally concluded that the possibilities were distinctly limited and that it would probably be short lived.

"Yet in 1931 there was actually 60 per cent. more rayon than natural silk used in the United States and this year the proportion in favor of rayon is probably even higher. Rayon, however, should not be looked upon as a substitute for silk, but rather as unique fibers with distinct and valuable properties of their own. These fibers may be used alone in fabrics; in conjunction with cotton to furnish an attractive decorative effect; or with wool to produce pleasing new fabrics of lowered cost.

"In 1910 the production of rayon in the whole world was only about ten million pounds and none was being made in the United States. In 1931 the production here amounted to about 144,000,000 pounds.

Science News Letter, November 4, 1933