

Traditional Dyes of Mexico¹

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What a surprise the conquistadors must have had when they saw the enormous number of coloring materials available in Mexican markets. For example, in the *tianguis* (open-air market) of Tlatelolco, they found baskets full of cochineal insects (cactus lice), stems of *texioate* and *pericón*. The *zacatlascalli*, used as a yellow dye, was sold interwoven, forming a sort of tortilla and, besides many other herbs, there was *tequesquite*, *alum*, *xishi* (a maguey fibre used for scrubbing), *sanacocho*, etc., for setting colors.

The cochineal insect was so highly valued that the Spanish rulers demanded tributes be paid in "cochineal grain". Mexico, Tlaxcala, Puebla, Hidalgo, Oaxaca, Campeche and Yucatan had haciendas to raise cochineal insects where the peasants were virtual slaves. In Zacatecas and San Luis Potosí, tribute was paid in cochineal insects as no other form of payment, in currency or kind, was accepted. The commercial value of the cochineal insects was slightly lower than that of gold, and the Spanish made huge profits exporting it to Europe.

Among the famous chroniclers of that era who wrote about the subject are Friar Bernardino de Sahagún, who left us meticulous observations, and the illustrious royal physician and biologist, Francisco Hernández, a member

of the tribunal that authorized the practice of medicine in New Spain. He studied the flora, fauna and minerals of this new world with such detail that it was possible for him not only to describe their physical characteristics in writing, but also draw the animals and plants with absolute precision. He added all known information about each animal and the use of each plant: food, medicinal, dyeing, or other uses. He also drew the terrain of the regions where minerals could be found. Many other studies during this period only described the use of natural coloring materials superficially, mentioning just a few pieces of data in their writings.

In the pre-Hispanic period, silk and wool were unknown in Mexico. There were only vegetable fibres such as cotton, jute, sisal and other similar ones. Without special treatment, sisal cannot be dyed.

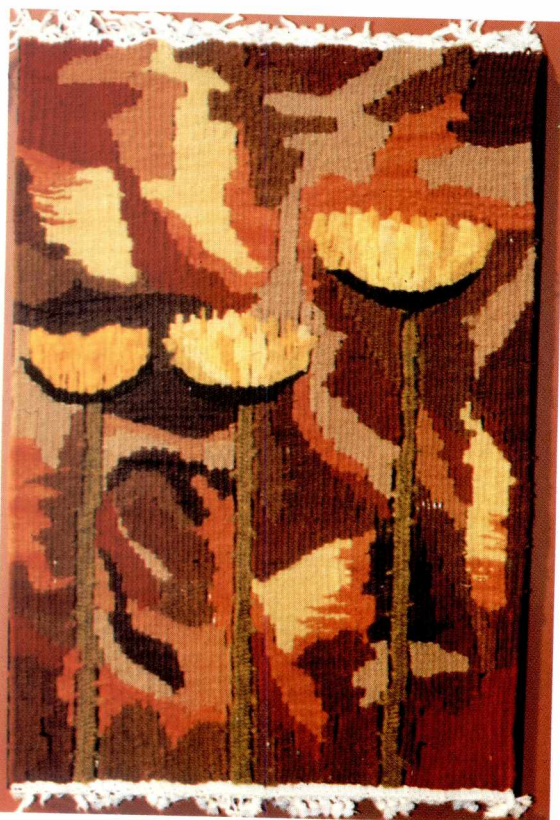
During my research, I found that in spite of the fact that there were many excellent dyes and mordants which would keep the colors from running in clothing after dyeing, they were washed to discolor them before they could be used. The colors "ran" or "bled." This discoloration was done in some regions after weaving the garment; it was soaked in the river and left to "weep." Only then was the piece of clothing considered pretty, as everything made by man, even though with the greatest care, could not be perfect until it had received the blessing of the goddess of the water, *Chalchiutlicue*.

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¹ Translated by Andrew B. Martín H. Jr.



Wool yarn and plants used to make dyes.



A woven flower design.

Nowadays animal fibres, like wool, dye easily and tend to fade less, but among traditional ethnic groups a garment is still preferred if the colors run.

Several colors were highly valued in Mexico:

1. *Purple*, obtained from the marine snail, which gave a very firm color. To obtain it, dyeing was done *in situ* with a special technique and the snail was returned to the sea alive. Its production was limited and highly valued.
2. *Scarlet*, obtained from the cochineal insect, said to be native to Mexico. This useful little animal is a parasite of the prickly pear cactus and was specially cultivated.
3. *Campeche wood*, which when it comes from the state of the same name, offers the best quality. It's used to obtain tones ranging from black to purple. It produces absolute tones that today are very popular abroad; so much so that the sale of Campeche wood has become a state monopoly for export and Mexican artisans and dyers cannot get it in Mexico.
4. *Blue*, from the indigo plant, greatly facilitates cotton dyeing since it is very strong. It was widely used in



Woven representation of pre-Hispanic dwellings, colored with vegetable dyes.

- daily life and people believed (and still do in some places) that it prevented snake and scorpion bites.
5. *Yellows*, obtained from the wild flowers of each region, of which there are an infinite variety.

Few of the garments constantly mentioned in the conquistadors' chronicles have survived, due to Mexico's climate. The study of the materials with which they dyed these garments has been possible analyzing all the data from the pre-Hispanic era that could be found.

Thorough research was done studying the codices, carefully analyzing the wearing apparel of high priests, kings, high-ranking military officers and people in general. In these drawings, clothing is highly detailed, as is the appearance and decoration of the places where these scenes took place.

We must remember that the pre-Hispanic world had huge gardens and greenhouses, some for chosen visitors and others for the general public. When they painted them in the codices not only the flowers and plants can be seen, but also the visitors and their apparel: privileged castes, courtesans and common people.

To draw and paint these codices, pigments of a very limited range of colors were used: blue, red, yellow and combinations of these. This made it impossible to color the codices the same way clothes were! Nevertheless, they did depict the variety of colors, the complex and luxurious designs, the symbols representing power, the hierarchies, whether they were religious, military or political. ❧



Pre-Hispanic symbol from Cacaxtla next to a Buddhist symbol.

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Silk fabrics dyed using a knotting technique.