

TURKEY RED DYE

Red seems always to have been a favorite color. Philologists have determined that, after black and white, red is the first color word to enter a language.(1) Many prehistoric pots are decorated with a red slip. When the Sumerian city of Ur, dating to 3500 B.C., was uncovered, fragments of red woolen garments were found in a royal tomb.(2) Even as far back as 20,000 B.C., the Paleolithic people of Europe and the Middle East buried their honored dead in a covering of red ocher.(3)

Painters have been able to incorporate the relatively stable mineral colors in a matrix or oil, wax, or albumin so that the color remained fairly permanent as long as the painting was not disturbed. But the dyers of the world had a different problem: adhering color to movable cloth in such a way that it was not only sun-fast but wash-fast. Even though, until perhaps the last hundred years, most of the world did not put much emphasis on frequent washing of clothing, it was still important that color not fade, flake off or run off in the rain.

Over the thousands of years of prehistorical and historical times, dyers have ever searched for a fast red dye. Until the advent of aniline dyes which could be made in a laboratory, only two substances had been found which produced the desired color and fastness: madder and cochineal.

COCHINEAL... comes from a small insect found mainly in two places in the world, Central Asia and Mexico. Before Europeans knew that Mexico existed, they imported cochineal (called kermes at that time) from Persia overland across the Middle East. It was very expensive. However, it was also a very good dye material, especially for silk. In 1255 A.D. in Venice, a center of the silk industry in the late Middle Ages and throughout the Renaissance, a law was passed prohibiting the use of any red dyestuff other than cochineal. One of the penalties for being found in possession of other red dyestuffs was to have one's right hand cut off.(4)

By 1513 in Mexico the Spanish explorers had become acquainted with the Mexican use of the cochineal insect, and ten years later Charles V wrote to Cortes telling him to send some samples back to Spain.(5) Following this, Spain cornered the market on the European distribution of Mexican cochineal, which was a bigger and better bug than the Eastern kermes. Three centuries later early American dyers had to import their Mexican cochineal through Spain and then England. They complained of the prices.

MADDER DYE... comes from the root of the madder plant, a two-foot high shrub native to Asia Minor. The true madder (rubia tinctorum) has many cousins and will grow anywhere in a temperate climate. With the exception of indigo, madder has probably been used world-wide for dye more than any other plant. The dye substance is contained in the root which can be easily dried and then stored and shipped. Thus madder root early found a place as an item of commerce on the trade routes of the Middle East. Pliny described "plantations" of madder growing in Italy as early as 50 A.D., and in the 8th Century Charlemagne ordered the cultivation of madder in gardens throughout his empire which included France, Belgium, Holland, most of Italy and northern Spain.(6)

In these early days, the fabrics of Europe were wool, silk and linen; cotton was not known there. But it was known and valued in Egypt, India and the Middle East. Pieces of cotton fabric (dyed red!) and dating from 3000 B.C. have been found in the ruins of Mohenjo-Daro in northern India, and Alexander the Great was astonished by the "wool trees" he saw in India. For dyers, the problem with cotton fiber was that it didn't take dye like the animal fibers wool & silk. Kermes, which produced brilliant scarlets on wool and silk, came out only pink on cotton. And while the dyers of Armenia, Turkey and India could dye cotton a bright fast red with madder, European dyers could not get madder to stay on the fiber. It ran disastrously.

Over the centuries the benefits of cotton came to be valued in Europe--

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So much so that the wool growers of England and France. in the early 18th century obtained laws forbidding the use of printed cottons. However, Holland, Belgium, Switzerland and Spain had no such laws, and their textile industries went ahead with research, particularly with the knotty problem o how to dye cotton a fast red. When, in 1780, the new machines of Manchester, England, were busy turning out plain colored cotton fabric, they had to send their yarn to Turkey to be dyed red. The secret of Turkey Red was still not known in Europe.

Eventually, through industrial espionage which was every bit as prevalent then as it is now, dyers in Leyden and Rouen discovered the essence of the process, which was to treat the fiber with oil or animal fat before adding the other mordants and the dye. And in 1786, in response to a prize offered by the British Parliament, the mills of Manchester received the secret from a Frenchman, Louis Borelle.

Thus Turkey fled, or "oil boiled" calico, cane on the American scene through France and England. We can see tile results in our old quilts which, as our nation came into being in the same tines that European cotton printing was being perfected, include French and kingfish copperplate prints of red on white and later European calico and American calico of the "red spriggy print" type. Red spriggy prints, oil-boiled calico, red oiled prints, or Turkey Red -- however one chooses to call them -- were certainly much loved by our fore-mothers. We find them in many, many old quilts, almost as bright today as they were nearly two hundred years ago. Truly, Turkey Red was a fast dye.

Finally it was supplanted by man-made dyes which are easier to apply but, during the one hundred years it held sway in America, Turkey Red was one of the most satisfying of dyes. It is remembered fondly by quilt and fabric lovers.

--Sally Garoutte--
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TURKEY RED DYE

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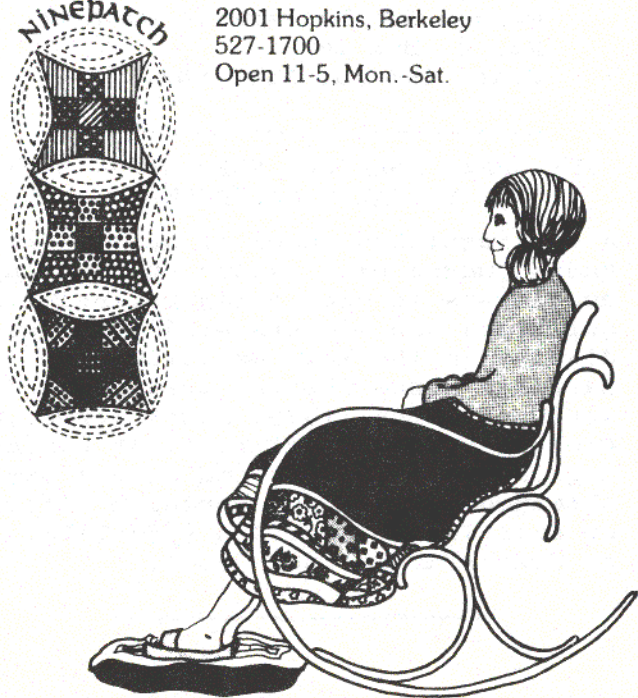
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