

Sometime before the fifth century B.C., painters in Asia discovered that a far more satisfactory red could be made from the mineral cinnabar, or mercuric sulfide, a compound also known as vermilion and minium. Used to striking effect in Chinese scrolls and later on the frescoed walls of Pompeii, cinnabar did have several disadvantages: it was expensive, poisonous, and had a disconcerting propensity to turn black with exposure to light. Yet because it was by far the most brilliant red paint available, cinnabar continued to be used and celebrated for more than a thousand years.

If artists found it difficult to find a stable and vivid red, dyers faced an even greater challenge: their reds had to stand up to sunlight, sweat, and repeated washing. Because neither ochre nor cinnabar yielded a bright red when applied to cloth, dyers were forced to look elsewhere. Their quest was rather like alchemy: a secret art by which practitioners sought to transmute base materials—leaves, bark, blood, dirt, and even cow dung—into a gold mine of brilliant red dyes.

Unlike the alchemists, the dyers were successful—but only to a point. Although they learned to make russets and orange-reds cheaply and easily from plants, true red proved a much greater challenge. Before the invention of artificial dyes in the nineteenth century, it could be obtained only from exotic substances and secret techniques that few dyers ever mastered.

Elusive, expensive, and invested with powerful symbolism, red cloth became the prize possession of the wealthy and well-born. Kings wore red, and so did cardinals. Red robes clothed the shah of Persia, and in classical Rome red became so synonymous with status that the city's most powerful men were called *coccinatti*: the ones who wear red.

It was big news, then, when Spain's conquistadors found the Aztecs selling an extraordinary red dyestuff in the great marketplaces of Mexico in 1519. Calling the dyestuff *grana cochinilla*, or cochineal, the conquistadors shipped it back to Europe, where it produced the brightest, strongest red the Old World had ever seen.

According to the eminent English chemist Robert Boyle, cochineal yielded "a perfect Scarlet." A master dyer went farther and called it "the finest and best dye drug in the world." Cochineal became Europe's premier red dyestuff, and Spain made a fortune selling it to dyers around the globe.

As far as Europe was concerned, the only trouble with cochineal was that Spain controlled the supply. Indeed Spain guarded its monopoly so jealously that the dyestuff's very nature remained a mystery. Was cochineal animal, vegetable, or mineral? The best minds in Europe argued the point for more than two centuries.

Few, however, disputed the new dyestuff's value. In an age when textiles were a major source of wealth, cochineal was big business. Determined to break Spain's lucrative monopoly, other nations turned to espionage and piracy. In England, the Netherlands, and France, the search for cochineal soon took on the tone of a national crusade. Kings, haberdashers, scientists, pirates, and spies—all became caught up in the chase for the most desirable color on Earth.

The history of this mad race for cochineal is a window onto another world—a world in which red was rare and precious, a source of wealth and power for those who knew its secrets. To obtain it, men sacked ships, turned spy, and courted death.

This is their story.