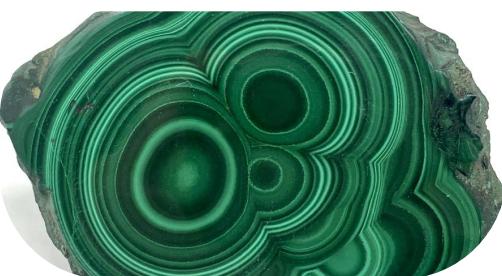


# Dyes: Ancient and Early Modern



Clockwise from top: early Briton with skin dyed blue using woad; Buddhist monk with saffron-dyed robe; malachite crystal; wool dyed using Tyrian purple (crushed Murex sea snails); ancient Chinese lacquerwork dyed red using cinnabar (mercury sulfide).

Some of the oldest recorded natural products are dyes. Dyes chemically bind to a substrate and alter its colour. Humans have been using dyes since the neolithic period (10,000 BC).

Until the 19th Century, all dyes were extracted from natural products. Plant-based dyes like woad, indigo, saffron, and henna were used, alongside animal and mineral dyes such as malachite, cinnabar, and Tyrian purple.

Ancient dyers knew their materials, but were they chemists? How do we define a chemist?