Hippocrates’ Four Humors in 1893 at Chicago’s Post-Graduate School of Anaesthesia

Ancient Greeks philosophized about interrelated quaternities or foursomes—from elements to colors to humors. Classical philosophers envisioned a four-element universe (fire, water, air, earth) painted from a four-color palette (yellow ochre, white chalk, red ochre, and black charcoal) by a four-humor artist (the yellow bile, phlegm, blood, and black bile of Hippocrates). For centuries prior to Hippocrates (c.460 to c.370 BCE, the “Father of Medicine”), pre-Classical Greeks had observed the yellow, white, red, and black layers that settled out of freshly collected blood from animals sacrificed to ancient gods. Upon the sacrificial altar, the ancients poured sequentially from a sphageion (catch vessel): (1) the topmost yellow fluid (serum) behind Hippocrates’ “yellow bile,” (2) the scant buff layer (leukocytes) behind Hippocrates’ “phlegm,” (3) the copious air-reddened layer (erythrocytes) behind Hippocrates’ “blood,” and finally (4) the bottom reddish-black layer (clot) behind Hippocrates’ “black bile.” Referring to Hippocrates as “the greatest of ancient scientists,” professors at Chicago’s Post-Graduate School of Anaesthesia underscored in 1893 that each patient’s blend of humoral composition was unique. (Copyright © the American Society of Anesthesiologists, Inc.)

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