Rosette Nebula

This optical and X-ray image shows the Rosette star formation region, located about 5000 light years from Earth. The Chandra X-ray data (red) show hundreds of young stars in the central cluster and fainter clusters on either side as outlined in the white lines. The central cluster appears to have formed first, producing a burst of radiation and stellar winds that caused the surrounding nebula to expand, triggering formation of two neighboring clusters. The optical data reveal large areas of gas and dust, including giant pillars that remain behind after intense radiation from massive stars has eroded the more diffuse gas. The presence of several X-ray emitting stars around the pillars shows star formation is continuing in the region.