Abstract: Interactions between dark and visible matter may have reshaped the early history of our universe. Dark matter annihilation and decay could provide a steady trickle of energy into the visible sector, heating and ionizing hydrogen and leaving imprints in the cosmic microwave background radiation; at the same time, scattering between dark and visible matter could work in the opposite direction, draining energy out of the visible sector to heat the cold dark matter. I will discuss current and future constraints from the cosmic microwave background on scattering between dark and visible matter, including a general framework for constraining velocity-dependent or redshift-dependent scattering, and the implications for a recent claimed detection of a strong 21cm absorption trough from the cosmic dark ages. I will show that if this signal is confirmed, it can place stringent constraints on dark matter annihilation and decay, even in the presence of other mechanisms that affect the 21cm signal strength.