Issue 52

Scattering of Light: Light Pollution

Have you ever seen the Milky Way?

Like the Milky Way, Halley's comet, when it returned in 1985 and 1986, was invisible or badly dimmed for many people because of light interference from our brightly lit cities and suburbs.

The scattering of city lights by overlying smog particles gives the night sky a milky color against which even the brightest stars are often invisible. Because of such "light pollution" many high school students now grow up never having seen the Milky Way spanning the night sky.

Already the usefulness of the nation's largest optical telescope, the 200-inch instrument on Mt. Palomar in California, is being threatened seriously by the increasing glare of the lights of San Diego. Some telescopes on Kitt Peak, in Arizona, are being limited by the lights of Tucson. The famous 100-inch telescope on Mt. Wilson, in California, is now useless and is being retired because of the lights of Pasadena.

Even amateur astronomers looking at the night sky through small telescopes are having more and more difficulty finding places and times where the sky is dark enough to see planets, comets, stars, and nebulae. The moon, at least, is almost always easy to see.

If nothing is done, what will be some of the long-range consequences?

Note: Mt. Palomar astronomers named a newly discovered asteroid "San Diego" as a "thank you" to the city for its cooperation in shielding its street lights.

(See "Outer Space: Infinite Dump," p. 106.)