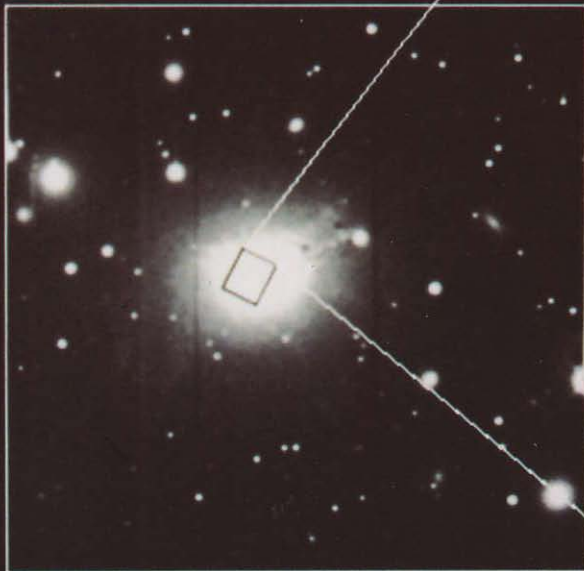




NGC 1275



GROUND VIEW



HUBBLE SPACE TELESCOPE VIEW
(WFPC)

Globular Clusters at the Core of NGC 1275

The image on the left is a ground-based image of the giant elliptical galaxy NGC 1275, taken with the 4-meter telescope at Kitt Peak National Observatory, Tucson, Ariz. This oddly-shaped galaxy lies at the center of the Perseus cluster of galaxies in the northern hemisphere.

The image on the right, taken with NASA's Hubble Space Telescope (HST) Wide Field/Planetary Camera, is the central portion of NGC 1275. HST's high resolution reveals individual clusters of stars that appear as bright blue dots. These globular clusters contain young stars—which is unusual because most globular clusters are made up of old stars.

The Hubble Space Telescope was deployed from the Space Shuttle Discovery on April 24, 1990. HST was designed to study the Universe in near-infrared, visible, and ultraviolet wavelengths. HST is one of NASA's Great Observatories. The second Great Observatory, the Compton Gamma Ray Observatory, was launched in April 1991. The Goddard Space Flight Center, Greenbelt, Md., manages HST and the Compton Gamma Ray Observatory for NASA's Office of Space Science and Applications.

For the Classroom

1. Why does the image of the giant elliptical galaxy NGC 1275 show so much more detail in the Hubble Space Telescope view than the view from Kitt Peak National Observatory?
2. What is a young star? What is an old star? How do astronomers know the difference?
3. Edwin P. Hubble, for whom the Hubble Space Telescope was named, recognized that galaxies have different shapes. What are the three fundamental shapes he used to classify galaxies? Are these classifications still used today?
4. The Hubble Space Telescope was launched more than two years ago by the Space Shuttle Discovery. Find articles in magazines and newspapers. Make a list of discoveries and "firsts" that NASA's Hubble Space Telescope has made.