

Dear Star-Struck,

You don't often hear about dwarf irregular galaxies, but the most recently-released Hubble Heritage image gives you a close-up look at wee little NGC 1705, a dwarf irregular about 17 million light years distant. The Hubble picture reveals an intense cluster of brilliant blue stars surrounded by a halo of older, redder stars, embedded in pinkly glowing hydrogen.

Dwarf irregular galaxies are tiny patchwork collections of stars and gas that lack the structure of their larger spiral or elliptical brethren. They are also rich in gas, but poor in the heavy elements (those elements heavier than helium) more plentiful in bigger galaxies. Dwarf irregulars may resemble the building-block galaxies of the early Universe, the fragments from which other, larger galaxies evolved.

Unlike the Milky Way, in which older stars concentrate toward the core, the central region of NGC 1705 reveals young, blue stars—stars which may have formed as recently as 26 to 31 million years ago. But the galaxy itself is quite old—perhaps 13.5 billion years old. This long, slow story of starbirth makes NGC 1705 an intriguing object of study, one which may shed light on the history of star and galaxy formation in our Universe.

Electronic image files and additional information are available at
<http://hubblesite.org/news/2003/07> and
<http://heritage.stsci.edu/2003/07>.

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