

BETELGEUSE

CONTINUED FROM PAGE 1

Most people have never heard of it and will often laugh at its name and repeat it. Then I tell them those two favorite facts of mine. I never tire of witnessing their wonder and reverence in realizing that they are looking at the largest single object they can see with the naked eye. Other stars appear brighter, because they are closer to us. Betelgeuse is still the largest.

OR IS IT? In January 2020, astronomers announced that Betelgeuse is suddenly much dimmer. This is an amazing thing. They first noticed it in October 2019 and by December Betelgeuse had fallen from being one of the top ten brightest stars in the heavens to being the 21st brightest. It is markedly more faint in the sky now. When a star becomes a red giant like Betelgeuse, it is an old star, nearing the end of its life, which could still take a few million years. Yet now that Betelgeuse is all of a sudden so much dimmer, dimmer than it's been in the century or more that astronomers have been able to take exacting measurements, some of them are wondering if the star will go supernova much sooner—i.e., burn off most of its fuel and then, under extreme gravitational forces, explode and expire.

They are saying now that Betelgeuse could hang on another hundred thousand years, maybe two, or it could die today or tomorrow. Some think that, although this degree of faintness is extreme and unknown for this star, it is still part of its natural expansion and contraction cycles, and they think that Betelgeuse will brighten again.

Nobody knows for sure though. For

now it's a mystery. It's likely that the star's death will not happen in our lifetimes, but it's not impossible that we will live to see it go.

What would it look like, to watch Betelgeuse blow up in one last, brilliant blaze of glory? The event would last several weeks. The blast would light the night sky, even the day sky, and be as bright as the moon. It would cast its shadow on the Earth. Then, over a period of half a dozen years, it would gradually fade until it had vanished. But really it will have disappeared 642 years before we see it go, because that's how long it takes the light of Betelgeuse to reach us.

In January 2020, astronomers announced that Betelgeuse is suddenly much dimmer.

I like to think that this spectacular event will stop humanity in its tracks, have all of us join together and celebrate Betelgeuse's generous light show, mourn its passage, and collectively appreciate the wonder of our universe, understanding how small we are and how much we love and need each other.

For now, I have the small challenge of figuring out my revised Betelgeuse rap, to relay to friends on starry nights. A couple of months ago, shortly after astronomers first started noticing the star's unusual dimming, but before the change hit the news, I was leaving a meeting after dark. A friend of mine was looking straight ahead of us, and noticed

the constellation Orion hanging over the eastern horizon, just above the tops of our cars. She pointed out Orion's Belt. Then I told her my thing. In retrospect I remember vaguely thinking at the time that something was off, that my red giant didn't look as splendid to me as it usually did, and perhaps not so impressive to my friend either, but I figured the star was just being washed out by atmospheric haze. Never in my wildest dreams did I imagine that this unique behemoth, which has been a constant for me for decades, was DYING.

Is Betelgeuse still "the largest single thing" we can see with the naked eye? I

have no idea. Maybe it hasn't shrunk. I don't know how its dimming relates to its size these days. In fact, I don't know anything. I imagine Betelgeuse may no longer be a 20-story building compared

to our little punctuation dot of Earth. Maybe a 10-story building? I wish Bob Berman would revise his *Secrets of the Night Sky* and clue me in. Star books, even favorite ones, do go out of date and much faster than I had realized. I'm still trying to wrap my head around the idea that something that felt like a given, as reliable as the Sun rising and setting, has morphed, will never be the same, and might soon be no more.

UPDATE

Betelgeuse dimmed to less than 40% of its brilliance from October 2019 to mid-February 2020. By late February Betelgeuse started brightening again and is going strong. In March, astronomers announced that they thought that the dimming was caused by dust—sloughed off by the red giant—not some big change. Authorities no longer think that there's a chance it could explode in our lifetimes. This author is pleased to tell you that Betelgeuse is still the largest one object you will ever see with the naked eye.

Lisa Neal is a Chatham County Writer

learn
MAINSTREETPITTSBORO.ORG

Chatham Clay Studio
in downtown Pittsboro, is closed for COVID-19 until further notice.
Please monitor our website at: www.ChathamClayStudio.com

Williams Corner
A place with a purpose, coming soon
www.williamscornernc.com

OPUS FINANCIAL ADVISORS
THE ROBERTSON/FROST TEAM
Where family is our foundation
INDEPENDENT ~ FIDUCIARY
Our firm has more than 150 years of cumulative experience.
Nicole Robertson & Martin Frost
(919) 883-4318 (919) 883-4341
Our services include:
Retirement Planning ~ Long Term Care Solutions
Professional Investment Management
Financial Planning for the Modern Family
Socially Responsible Strategies
Learn more at opusfa.com ~ Email us at nicole@opusfa.com or martin@opusfa.com
4421 Manns Chapel Road Chapel Hill, NC 27516 - (704) 872-7671
Securities offered through FSC Securities Corporation. Member FINRA/SIPC. Investment advisory services offered through Opus Financial Advisors, Inc., a registered investment advisor not affiliated with FSC Securities Corporation.

Send your letters or articles to editor@chathamcountyline.org

chatham COUNTY LINE
"where all voices are heard"
<https://chathamcountyline.org>