

Stellar Metamorphosis: Dead Stars

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May 18, 2019
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Abstract: In stellar metamorphosis dead stars are made of rocks, minerals and metal. Though, just because a star is dead does not mean it is the same age as other dead stars. A good analogy would be a fossilized brontosaurus skull is vastly older than a fossilized mammoth skull, which in turn is magnitudes older than the people that were buried due to dying of the black plague from 1346-1353. There are different levels of being dead for a star, recently dead, mature, ancient and archaic. A simple graph is used to explain the levels of "dead".

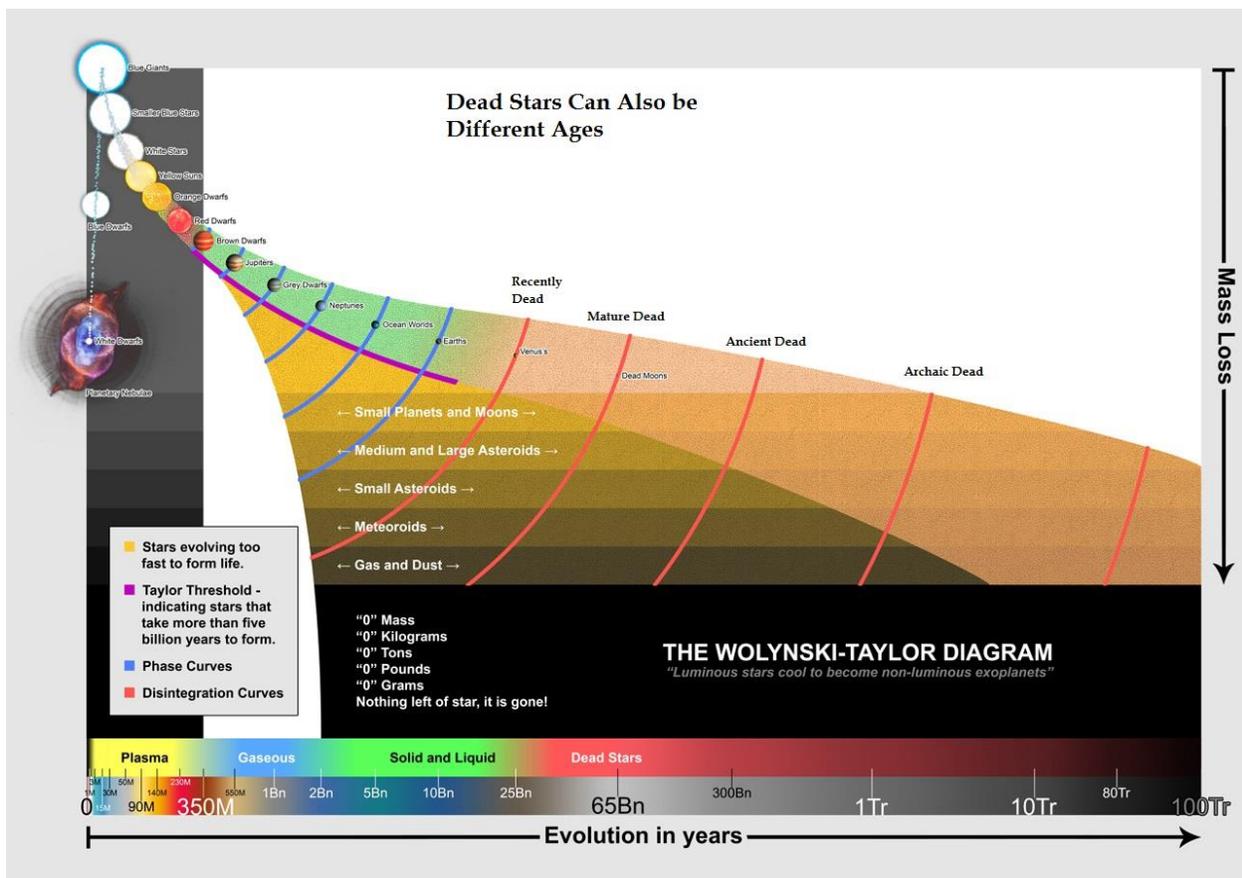
In terms of time and the universe, there can be magnitudes of difference between objects that are living both old and young. There can be much higher magnitudes of time difference between dead objects though, as known through the fossils of once living creatures on the Earth.

1. Something can have just recently died.
2. 1 year of being dead
3. 10 years of being dead
4. 100 years of being dead
5. 1,000 years of being dead
6. 10,000 years of being dead
7. 100,000 years of being dead
8. 1,000,000 years of being dead
9. 10 million years of being dead
10. 100 million years of being dead
11. 1 billion years of being dead
12. 10 billion years of being dead

There are many magnitudes of being "dead" for objects that have died. On the other hand, living things have never been observed to live to 1,000,000 years. Yet, dead objects continue on (because they are no longer alive, clearly). This has an important point though. There should be a lot more dead stars in the galaxy versus alive ones at any given point in time, because the magnitudes of time they can exist are much larger per the WT diagram. If you look at the diagram it shows that stars which are alive (active) are less than 10 billion years old. Yet, just one step past that to 20 billion the stars can be labeled as "recently dead". If you factor in the archaic dead stars, up to 2 trillion years old, then you have 200 times the amount of dead stars as alive (active) ones, but that is a very high estimate.

Chances are it's a bit lower, simply because the stars have already been on their way to completely disintegrating into large and medium sized asteroids. If you want to count those though, it is probably even higher, vastly higher. There are a hell of a lot of dead objects in the galaxy. I would give an estimate that 1 out of 30 stars that are Earth sized (near Earth size/Earth radius) have died and are well on their way to disintegrating back into the universe. I got that from taking the Earth as 10 billion years old, and looking at the ancient dead phase curve and looking down the graph to 300 billion. So 10/300 is 1 out of 30. Of course this will change when more data is made available with the exoplanet telescopes (ancient star finders).

It is important to realize this. There are recently dead, mature dead, ancient and archaic dead stars wandering the galaxy, and they completely outnumber the ones that are either hosting life, or still have thick atmospheres or even shine brightly.



As well it is important to note that just because the star dies does not mean it stops aging, dead things age too. All archeologists and forensic scientists know this. So now we can start looking at what processes could determine how old a dead star is in reference to other dead stars. We can now expand gyrochronology and examine if crater counting is valid, now that we have broken free of the dogma of stars being independent of "planets".

There is a 1/4 chance life is on a Trappist-1 object.