Stellar Metamorphosis versus Establishment Dogma: Stellar Isochrones and the Hertzsprung-Russell Diagram

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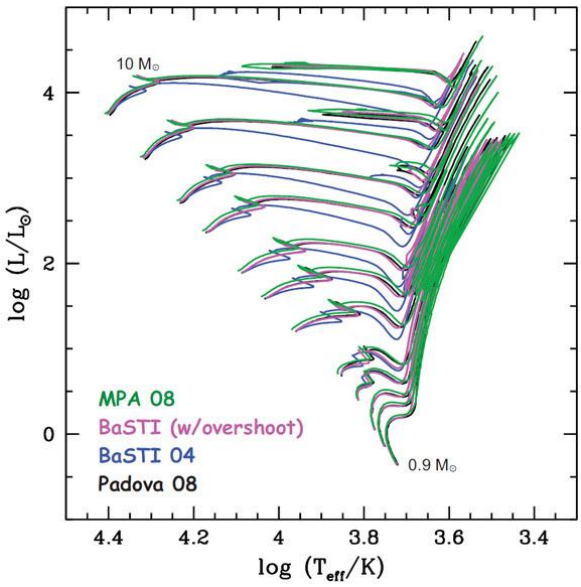
Abstract: In astrophysics an unnecessary concept was invented to try and explain what happens to stars as they evolve. These are known as stellar isochrones. Isochrones are rooted in the false notion that stars do not lose mass as they evolve. A corrective understanding is provided.

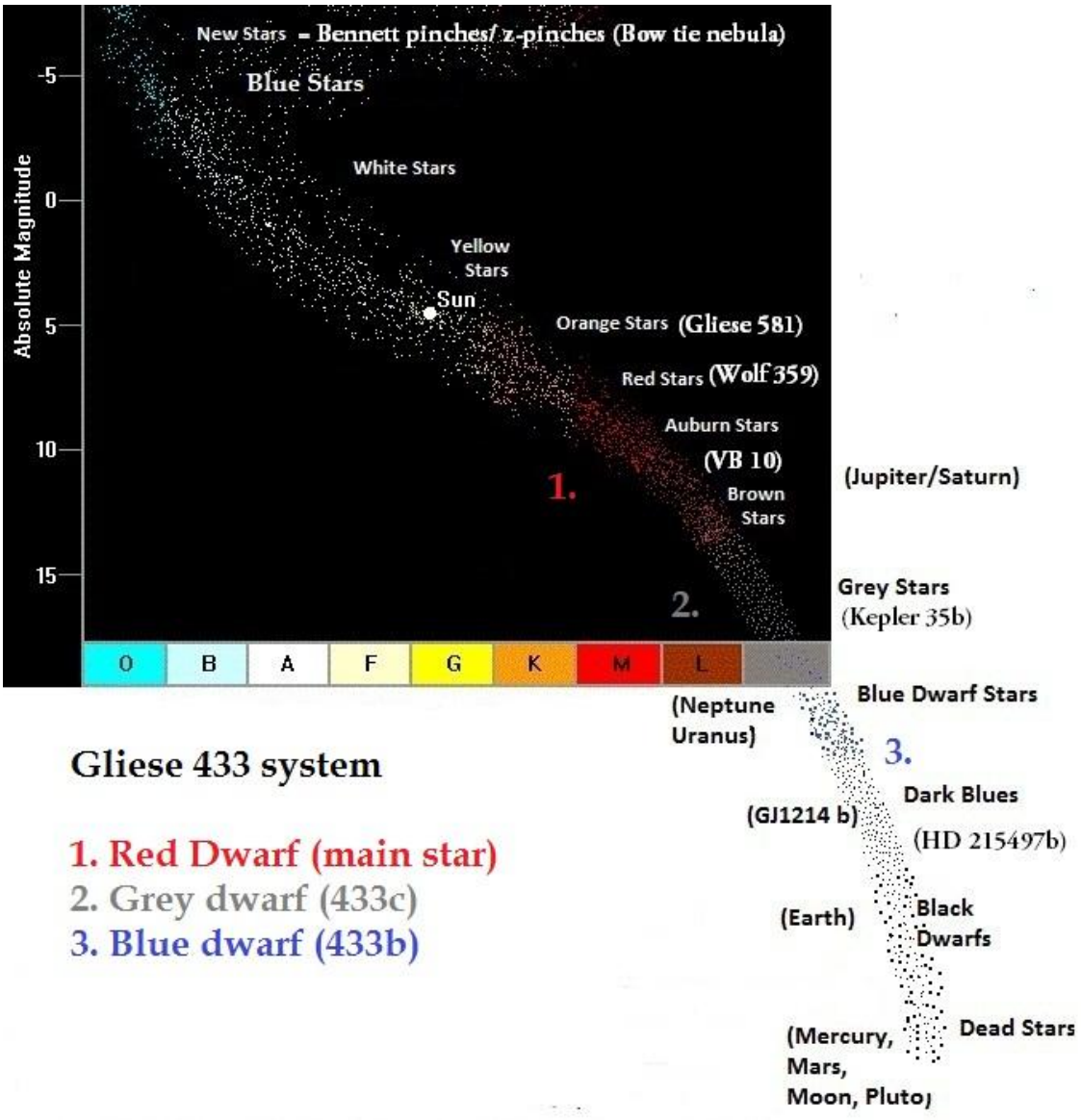
A stellar isochrone is a path that a star would take if it evolved and did not lose mass. Thus a stellar isochrone is an imaginary construct as all stars lose mass as they evolve. This means the only real stellar isochrone is the Hertzsprung-Russell diagram itself.

Here is a plot of various isochrones:



If you should notice there is no connection on the left hand side. Their "models" take an initial mass and determine what happens to a star based on its mass. This is wrong. Stars lose mass because they have what is called solar wind and are radiating. The entire right hand side of this graph is unnecessary.

Here is a basic graph over viewing the actual evolution of stars based on the reality that they lose mass as they evolve and do not form from gravitational pressure absent a gravitating body, which is a contradiction.



As we can see, the actual evolution of stars has one path. It is the Hertzsprung-Russell diagram itself including stars that have cooled to where they do not possess spectrums called "exoplanets/planets". The star is born from a powerful electromagnetic event sucking in matter and energy and then spends the rest of its life radiating/ejecting it until there is just a solid ball of most stable matter in many thousands of different chemical compounds and combinations leftover. It should be apparent that stellar evolution is the process of planet formation itself, as a planet is an ancient star. They were never mutually exclusive objects. Earth is a black dwarf.