Endosymbiosis in Late Stage Stellar Evolution According to the General Theory

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Abstract: It is explained that endosymbiosis happened as a result of the collapse of "bioclines" in the interior of a star as it loses its thick atmosphere in later stages of evolution. This paper is meant to combine both endosymbiosis with the general theory's principles which include life evolving on stars as they evolve.

To begin we can define a thermocline: A thin but distinct body of fluid that changes temperature more rapidly with depth as opposed to higher or lower levels.

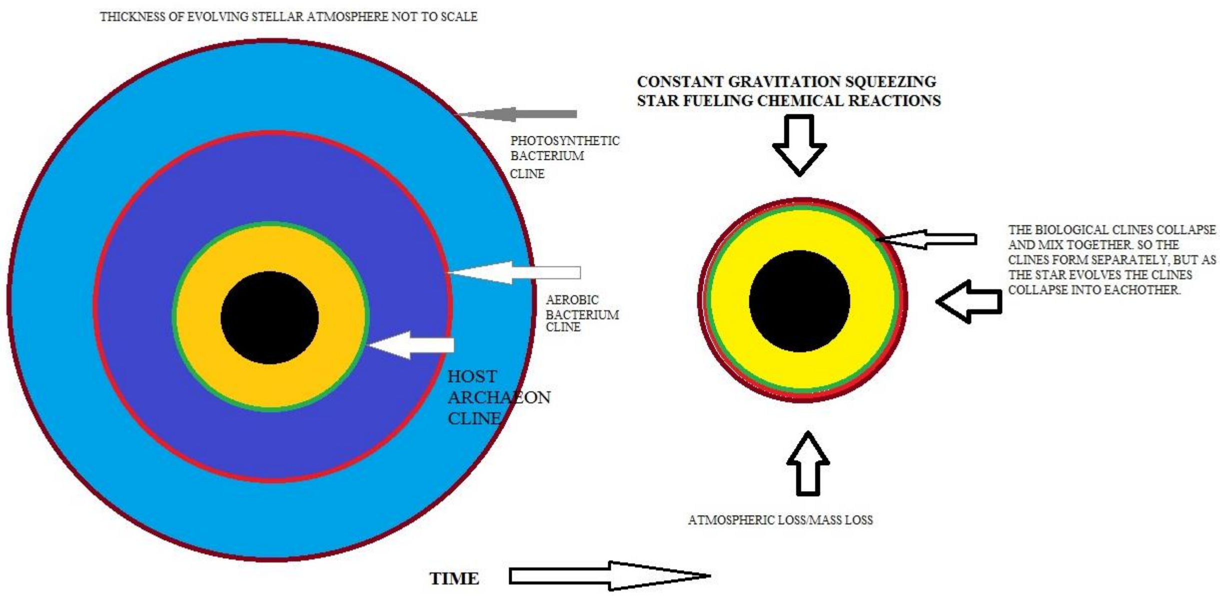
Example: In 100 feet of water the temperature drops by 30 degrees, but then from 100 feet down to 1000 feet it only drops by 5 degrees. Above the 100 feet of water is 1000 feet of air which does not have a significant temperature change either, only about 1 degree. The first 100 feet in the water is the thermocline.

Chemocline: A strong vertical chemistry gradient within a body of water.

Example: Deep water deficient in oxygen that only favor anaerobic bacteria. The absence of a chemocline would be the Earth's global oceans which the oxygen content is about the same everywhere and is mixed well.

A "cline" itself is a horizontal layer of fluid where the properties of that fluid change more dramatically. So it could be temperature differences, density differences, chemical differences, etc. They are essentially distinguished layers in a fluid that would allow for different types of reactions to take place, and this includes the formation of life itself during late star evolution, thus bioclines. For this paper though, it should be outlined, which is not outlined anywhere in all textbooks around the world that the clines change as the star evolves. Evidence for changing clines is provided by the survival mechanisms present in archaean cells which absorbed bacterial cells in the endosymbiotic theory of the origin of mitochondria and chloroplasts. Symbiotic means the bacterial cells, the aerobic and photosynthetic bacterium needed to survive with changing conditions and the host archaeon needed to survive as well, so they combined together to help each other out. To keep things extremely simple for this paper, it is proposed that the actual internal layers of the star hosted different organisms, and as the star lost its atmosphere the clines moved closer together, causing the changed conditions, and allowing for the archaeon and bacterium to combine together.

We can also state clearly that according to the principle of biostellar evolution, life forms and evolves on stars as they evolve, and, "The chemical reactions necessary for the formation of life from the formation of molecules from ionized plasma, to polymerization of the molecules, to prokaryotes, to eukaryotes and then to multicellular life, to sea plants then to animals and land plants all result in a series of stages of a single star's evolution."



In the above example, the scale of the atmosphere loss is not to scale, but the main point is that the bacterium, both photosynthetic and aerobic form independently of each other in their respective clines, as well as the archaeon forms independently as well. So the atmosphere is mostly similar but slightly different for each type of organism. The combination or endosymbiosis of the bacterium into the archaeon is dependent on their struggle for survival as the conditions of the interior change and the star evolves. It becomes better for the bacterium to be absorbed by larger cells, as well, those cells make use of those bacterium by producing their own food and powering them (photosynthetic and mitochondritic respectively). This is caused by the chemicals available for food are no longer present, so some bacterium absorb photosynthetic bacteria so they can survive, and some others start evolving to eat the cells that produce their own food. All of this happens in the fluid of the atmosphere of a highly evolved star.

Basically photosynthetic bacterium form on the top most layers, aerobic bacterium form where the oxygen content is the highest (closer to the newly forming crust, as most rocks and minerals have oxygen in them), and the archaeons that absorb the bacterium a bit lower than that, as they are heavier than either bacterium and probably formed where the heat and chemicals were much different than the top two. It is a simplification, but the principles are easy. Any increasing complexity for the cells can be added by introducing different bioclines, or biological layers that can interact with each other. As well, the bioclines are not perfectly horizontal, there is mixing involved, so some bioclines can be lower or above others depending on the internal conditions of a star. It is also important to note that mixing and separating of chemical components to form individual structures that then combine together over billions of years can only happen where the conditions are available. A short list is provided:

1. The chemicals and new life need mobility, so that they can mix on huge scales.
2. There needs to be a huge volume of material to increase the statistical likelihood of mixing chemicals forming the very simplest components of cells to be high.
3. There needs to be a significant gravitational field so that the forming molecules cannot escape.
4. If the gravitation is not strong enough, there still needs to be a physical method of preventing forming molecules and compounds from escaping, such as ice covered oceans.
5. There also needs to be a vast amount of time available. Life does not just pop up in a million years, it takes billions of years.

This is outlined in this paper: http://vixra.org/pdf/1608.0115v1.pdf
Time principle: http://vixra.org/pdf/1702.0067v1.pdf
Container principle: http://vixra.org/pdf/1610.0243v1.pdf

Shout out to Konstantin Sergeevich Mereschkowski, Andreas Schimper, Ivan Wallin and Lynn Margulis for working out the symbiogenesis stuff, it is helping me to explain what we are and how we got here. https://en.wikipedia.org/wiki/Lynn_Margulis I'll get to Lynn Margulis's Gaia hypothesis in a future paper.

https://endosymbiotichypothesis.wordpress.com/history-the-formation-of-the-endosymbiotic-hypothesis/