

“I am most certainly baptized!”

The Life that God Engenders

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1

The decrees of natural theology and its correlate, natural law, suffice to hold the whole world accountable, i.e., all that is Adam, as guilty before the eternal God. Herein lies the radical diagnosis of the human condition (Psalm 19:1-4; Acts 14:17; 17:24-27; Romans 1:18-20; 2:1; Hebrews 3:4; Isaiah 45:18).

2

The human will is bound upon itself and cannot change of its own accord, so that we remain Adam and spiritually impotent. The radical prognosis for humanity is that it has absolutely no potential to overcome its most desperate destitution (Isaiah 40:6-8; Jeremiah 13:23; Psalm 51:5; John 3:6a; Romans 3:22b-23).

3

It has pleased God to save members of a lost and condemned humanity through His own radical cure, the washing of regeneration and renewal by the Holy Spirit (Holy Baptism), bestowing upon them that which was purchased and won for them by the blood of Christ – forgiveness of sin, deliverance from death and devil, and everlasting salvation. In Holy Baptism the voice of the Holy Trinity speaks God’s children into life, for therein a new being is engendered, one with a radically new genetic identity, an identity not of Adam, but of God (Matthew 28:18-20; Mark 16:16; John 1:12-13; 3:5-7; Acts 2:38; Romans 6:1-4; Galatians 3:27; Ephesians 4:4-6; Titus 3:5-7; James 1:18; 2:7; I Peter 1:3-5, 23; 3:21-22; I John 5:7).

4

The child of Adam lives by self-justification. The child of God lives by faith. Faith delights in the perfect tense and the passive voice and finds its security (confidence and safety) there. This is so because faith glories in that which lets God be God. The redeemed take comfort in the God who has made them His own, “the God who is most at home when He is justifying the ungodly and giving life to the dead.” In this manner, they confidently express and live by the radical and stubborn “nevertheless” of faith (Job 13:15-16; 19:25-27; Psalm 66:12; 73:23; 118:17; Habakkuk 3:17-18; John 19:30; 2 Corinthians 6:8-10).

Requirements for a planet to sustain life

A partial list of conditions for sustainable life includes the following:

1. a terrestrial planet,
2. of correct mass,
3. in a nearly circular orbit,
4. with proper proportion of rocky crust to molten interior,
5. enabling circulation of an iron-nickel core productive of a protective magnetic field to shield harmful radiation,
6. with life-renewing plate tectonics,
7. orbiting a spectral G2 dwarf main sequence star,
8. protected from comets by outer gas giant planets,
9. within the circumstellar habitable zone,
10. a planet abundant in liquid water for assimilation and transport of nutrients,
11. with a proper ratio of seas and continents to provide a complex biosphere,
12. and seas of sufficient depth that a planetary moon produces in them tides and currents providing a kind of circulatory system to the biosphere,
13. with an oxygen-rich atmosphere,
14. yet one predominantly composed of nitrogen,
15. with moderate rate of rotation,
16. and moderate tilt for seasons, orbited by a relatively large moon to stabilize this tilt,
17. belonging to a solar system that lies within a stable, flattened ("pinwheel") disk galaxy, a star system located midway between the bulging core and the outer rim where heavy elements are not to be found,
18. nowhere close to the highly energetic galactic center and potential black hole,
19. but within the habitable galactic zone,
20. yet between and not within the spiral arms themselves with their active star-forming regions, nebulae and super-novae, inimical to life,
21. and within a galaxy not gravitationally compromised by colliding neighbors.

The list is growing as the science of astrobiology matures. The population of stars in our average-sized galaxy is recently estimated at 100 billion; likewise, the number of galaxies in the observable universe at 100 billion. Generously assigning each condition as representing a value of 1 in 10, the possibility of life is a multiplication of all these together; but, conceding just one more such prerequisite for life, as an abundance of carbon, let us grant the possibility of a habitable planet is 10^{-22} . The number of stars as candidates to be considered is already liberally given as 10^{22} (100 billion times 100 billion), though not every star, from the smallest white dwarf to the super-massive R136a1 (discovered by the European Space Agency in 2010), nearly 300 solar masses and 10 million times brighter than our sun, can be host to planets. Nevertheless, multiplying total candidates (10^{22}) by necessary conditions (10^{-22}) yields the number 1. Even doubling prior estimates of average number of stars per galaxy and total galaxies in the observed universe still yields only 4. Naturally, no hard claim is made here that the earth is absolutely the only habitable planet in the universe. Yet these considerations suggest that the answer to the question whether habitable planets are common or rare in the universe must be decidedly weighted in favor of the latter, even more so as further requirements for life are discovered. Cf. Guillermo Gonzalez and Jay W. Richards, *The Privileged Planet: How Our Place in the Cosmos is Designed for Discovery* (Washington, D.C.: Regnery Publishing, 2004).