Is SLG a Fungus, Algae or Lichen?

And more to the point, what should we be?

This morning I went to the hill that was calling my name yesterday. Anticipation soared.

At the top of the steps, out of sight from below, was a park. I wandered around and noted the tangible: well planned and maintained flower beds; nicely laid out irrigation system; groomed pathways; clean benches to sit on; an esthetically pleasing fence, serving more as a demarcation than an inhibitor; a few people wandering through; a crow sounding the alarm over my presence and purpose.

The central dynamic of the park was boulders. Only the tops were visible, a yard or two above the surrounding land, but they were the kind that gave the impression of being rooted 300 feet deep in the soil.

I picked a bench, sat down with my notebook at the ready and waited.

Silence reigned supreme.

I pinged the earth and received an acknowledgement that it was there and knew I was here, but had nothing to say to me. None of the people seemed to be connection points. I pondered moving to a different bench. Nope. Scanned the buildings and got nothing.

I quieted my diligent soul and just settled in to wait until my spirit announced with a complete lack of ambiguity that this was not a productive exercise.

I got up and wandered over to the rocks, wondering if they would feel different. They didn’t, but once there I observed the dozen different kinds of lichens that graced their surface and I felt awe rise within me.

After a season of observing and savoring, I headed back to the web and settled in to decode the message.

Lichens are composed of two kinds of living organisms; fungi and algae.

Interestingly, each can and does exist alone and they not only exist, they thrive. Wikipedia speculates that there are 1.5 to 5 million species of fungi in the eponymous kingdom. They concede that a mere 5% have been categorized so far. Even allowing for a
50% margin of error (my standard for web-based trivia) it is clear that fungi don’t need algae to have purpose, meaning and fulfillment in the world.

The algae tribe is a bit more modest in size and distribution. There are around 8,000 species of which a mere 1,500 are cyanobacteria which is a fancy word for blue green — the type that interface with fungi to form lichens.

So we have two tribes that exist widely, have high diversity, thrive as distinct species, but which can come together in a merger so intimate that for a long time researchers did not realize that inside the fungus was a completely engulfed algae, still functioning according to its original design.

It is an extreme illustration of a symbiotic relationship where two living organisms have a mutually dependent and mutually productive relationship, creating something together that is more dynamic than either of them alone.

The core factor is that the two are not parasitic with one devouring the other. The algae is a photobiont meaning it does the photosynthesis, taking carbon dioxide and water from the air and uses light to convert those into carbohydrates like sugar which the plant then uses.

The fungus is the mycobiont which provides the structure that houses the photobiont factory and which anchors the whole organism to the rock or other medium where they grow.

Lichens thrive where other life forms cannot. You find them in the hottest deserts and the coldest latitudes. They have been found on rocks three kilometers deep in the earth. In 2005 the Russians sent two kinds of lichens to space on a Soyez capsule. They exposed them to the vacuum, lack of gravity, and extreme temperatures of outer space for 15 days. When they were returned to earth, they were undamaged by a climate that destroys most living things.

Over 20,000 kinds of lichens have been identified so far.

Botany lesson over, I went back to awe and to the huge question of “So what?”

I have long marveled at the sight of lichens on a boulder in a desert so arid even cacti are scarcely found. They thrive in northern climates to the extent that in some areas, a single acre of undisturbed nature as much as 500 pounds of lichens a year for grazing animals and birds.

How can so much beauty and so much vitality come from such inauspicious organisms often placed in hostile environments?

It moves me to awe.

After the awe came the rub.
The message is clear. “Two are better than one,” to quote one of my least favorite preachers. Clearly God is inviting me to consider a lifestyle change as part of Sapphire going to the next level.

Now the riddle. Which am I currently, the mycobiont or the photobiont?

The photobiont sounds really cool. Use sunlight, water and carbon dioxide. Produce sugar and oxygen, benefiting my host with the sugar and the world at large with the oxygen. Cool stuff.

Or not.

It is the algae — the photobiont — that gets swallowed up by the larger organism until it is really hard to even find the algae any more.

Ugh.

I have had a number of larger organizations that have urged me to allow them to swallow me up so that we could have a wonderfully symbiotic relationship. I have habitually declined such all encompassing mergers out of deeply entrenched fear that the promised symbiosis could so easily segue into a devouring parasitic relationship.

So . . . was I wrong and I need to deal with that fear and enter into such an organizational relationship where I lose myself in the process of becoming vastly more transformational with someone else’s life structures multiplying the effectiveness of my photosynthesis?

There is a rather monstrous lack of inner exultation over this possibility.

Onward to Plan B.

Maybe I am the mycobiont — the fungus. There is a sentence that makes my vaunted legitimacy quiver!

What do I want to be when I grow up? Arthur the Fungus. Be still my beating heart.

But being ruthlessly honest, let’s try it on for size.

The mycobiont (so much nicer a word than fungus) creates a structure that enables the photobiont that is within the lichen to thrive and not be destroyed.

Hmm . . . could fit. I have tried hard to make this a safe place for people to partner with me without being exploited. I have built a platform under a few people without being parasitic. However, that is mostly in an external organizational relationship. That doesn’t seem quite the same as totally taking over someone without, in any way, diminishing them. Not sure about that picture.
Thoughts anyone?

The mycobiont creates some very esoteric acids (Sigh. I hear those cheap shot Prophet jokes being formed already). Those acids dissolve rock in order to access minerals needed to sustain the life processes of the lichen.

Loosely speaking I have been known to extract some nutrients from Bible stories and life situations that don't yield much to other people. Maybe this fits.

The mycobiont does the heavy lifting in areas that no one else is willing to touch — extreme cases where other life forms wouldn't think of trying to be productive.

Kind of, sort of, fits.

Ugh.

Looks like I make a better fungus than an algae.

But if I want to be a lichen when I grow up, then obviously I need to acquire some algae friends and treat them really, really nicely.

Wonder what that would look like on Monday morning?

I also wonder if I ate too much peach and passion fruit yogurt and I just need to sleep it off and not try to get any spiritual guidance out of lichens on a rock!

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From unit 24, just west of the lichen park