

As I stand on the balcony, the leaves from a maple tree fill half my view. As I look at the one closest to me - a leaf still early in its developmental phase - I can see the soft matte reflection of the harsh white streetlights. There's a slightly jagged, but smooth - one might even say differentiable - silhouette to them, creating a shaky, but unmistakable trident. In the coming weeks, these jagged edges, which resemble a curve drawn by an unsteady hand, will mature into defined spikes, mimicking a fractal. As I turn my attention to another leaf, I run my hand under it. It's slightly fuzzy - with the characteristic hair that accompany new growth.

But as I compare the two leaves, they are virtually indistinguishable. There's immense, intricate complexity in each, with carefully structured veins branching in exactly the optimal pattern to carry nutrients to and from. The leaves must all be the same, however, as they must all serve the same purpose - if any one of the leaves performs its duty slightly better - somehow managing to eek out a tiny bit of efficiency, then the rest must follow as well. As the season progresses, the leaves must grow to become yet more intricate, complicating their already brilliant geometries yet further.

Storms will arrive, bringing winds and rain, and through no fault of their own, some leaves will be no more. The branch holding them up may snap, or the winds will rip them off the delicate strands that join them to the whole. But the tribulations of extreme weather are not the only challenges that they must endure. Some, through sheer misfortune, will have grown in a place the sun does not shine. And since they will not produce any sugars for the tree, they will be slowly deprived of water, of energy. The once marvelous structure will, through deprivation, shrivel and distort until they finally fall, pathetically blown away by the slightest breeze. What are they to do? They can't pick themselves up and move - even if they could, there's no space. Still others will be in the perfect position, right on the outskirts, with a strong attachment to their respective branch. But these leaves will have a genetic mutation: they will remain stunted and deformed, and despite all the efforts of the branch supporting them, they will fail to grow to the level of their peers. This is unavoidable too - they can't change the genetics that have destined their life.

Eventually, the leaves will all fall, having lived out the lives they were subject to. The tree - the tree that spawned them all - will continue on, a living, breathing entity of its own.

For now, the leaves are a lovely hue of green.