

# ISOLARII I

**SALMON: A RED HERRING**

**WHAT COLOUR IS MARS?**

**A FOREWORD BY**

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What color is Mars? The blood-bathed wanderer of war. That pale red dot, dotted with little green men. The Red Planet is... red. Isn't it?

To us it is, from our vantage point here on Earth, our lush, verdant paradise. Despite our best attempts to tarnish her, Earth still floors you with splendor, after just an hour's drive out of most cities. Pull over, hike your legs over the guardrail, walk into the trees lining the highway until you can't see or hear the

highway anymore. And then, pause. Look around. Odds are, you'll be deafened by silence and shrouded in color. Greens, yellows, browns, maybe vibrant reds and oranges. If you're lucky, and it is late spring, you might also find a veritable Impressionist's palette of flowers dotting the leaf litter. These hues that line the world are concentrated pockets of chemical compounds, mostly crafted at the hands, or rather within the cells, of living organisms. Carotenoid yellows, anthocyanin purples, melanin blacks, phycobilin blues. Life's living rainbow deftly exploits an unapparent feature of physics at its smallest scales and enriches our world in the process. 'Unapparent' because living organisms had to work their way to sight. The universe has been bathed in light since it was 400,000 years old, but, for the next 13 billion years, eyes were not.

To quote Erwin Schrödinger in his masterpiece *What is Life?*, "life feeds off negative entropy" and, in

the process, becomes a pocket of negative entropy itself. Entropy, that which gives direction to time, and conspires to act as the great leveller—the great admixer, eroder of mountains. Entropy never allows you to stir things apart. But life—through the painstaking organization of the world, by way of organic molecules and genes and proteins and information and generations that nestle disparate and scattered granules next to their kin—life cheats entropy. It builds with blind purpose. It fails more than it succeeds, but when it succeeds, it holds on for dear... life.

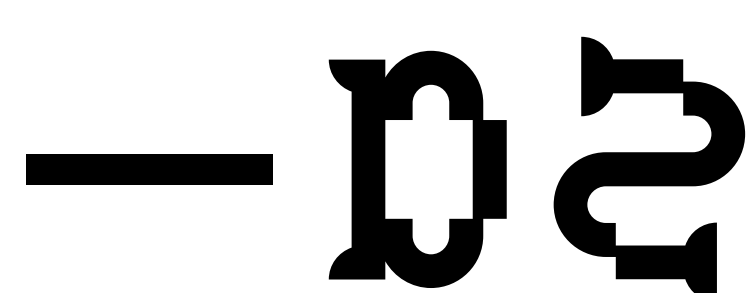
Novel forms take shape. Molecules that shimmer in the rarest hues come into existence. Absorption spectra are fine-tuned. Life actively veers away from the painter's wash bucket, even when it tries to be brown by design. The living world is full of organization and chaos, but in between those two extremes, a richness rises to the surface. Life sorts through the

world in order to fill every nook and cranny with meaning, while simultaneously extracting meaning from every nook and cranny. To see is to discern.

For most of human history, nobody thought of the sky as blue. It was simply the backdrop against which the Earth was framed. Even today, in some of the few remaining remote traditional societies, which persist against the odds, the sky is not thought to have color. Which, to WEIRD humans, seems absurd. But the more complex our world grows, the more complex we seem to make it, and the more we reduce wholes to their constituent parts—dividing ever further, until we push up against the boundaries of ‘nature’ and find that color is a discrete phenomenon. At some point, there is no coordinate system to make a blue-green just that much more blue. Entropy toils to rid the world of meaning. Humans toil to fill the world with it. A 200,000 year long push and pull.

What color is Mars? Is it red? Or, to follow the hunter-gatherer, set against an endless heaven while tracking boar for dinner, does the stage defy discernment? If every grain of sand on Mars—long rusted an orange-red, long blown round the planet in dust storms larger than any here on Earth—can't be discerned from any other, can the planet be said to have a color at all? And if there are, indeed, no Martians hiding in those lifeless rocks to look upon their red planet and observe into existence the monochromatic stage upon which they stand, can the planet be said to have a color at all? Or do we give Mars its color? By observing it through our telescopes from our vantage point on this pale blue dot—in such magnificent contrast. Life lives through color, and by giving color meaning, we color the world.

To discern is to see.



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