BLUE HOLES OF LIFE...THE LIVING EARTH THEORY

This text is from an article describing her dive through a "blue hole" I believe it should be chemically and physically investigated in a new light. My belief and theory is based on my research in the ignored Geology of deep Earth, BOILING HYDROGEN...WATER...CRUSHED MANTLE...CELLULAR STRUCTURE...and more. The ancient texts have been laughed at, not by me! ALL early texts spoke of similar crazy things...meticulously documented... Not simply fairy tales. Religions and books were a RESPONSE to these unexplained things they witnessed. Furthermore it was not only the Bible or religious texts, but texts in general spoke of the same things. These things are written about and I do not dismiss them blindly. I will list a few reason that I feel these texts need to be re-considered.

1..I have specimens of huge primates, 100% human mtDNA tested. 10 to 20 times Human size. Biblically giant creatures. 2..The chemistry of these giants bodies just as ours... results in concentrated metals and crystals in organs and bone etc. 3...the structural anatomy is a virtual model of human parts in stone 4...the chemistry of our bodies mimics what is found in mineralized layered intrusions closely. Rock layers in these intrusions are geologically layered the same as my giants. Grey white red...grey white red...chromatite layer...gray white red....

Blue holes and the digestive system by Breeann Kirby...

"I'd imagine that I was a tiny microbe, moving through the gut of some impossibly large and fantastic beast, passing colorful colonies of fellow microbes that were gleaning nutrients from the constantly shifting watery breeze.

This comparison of blue hole to gut is not all that improbable. Like our guts, a blue hole is an open tube with specific topology that runs right through the rock root of an island mountain. Like our guts, fluid constantly moves through the holes. Like our guts, many organisms make their home in blue holes. And like our guts, the aerobic organisms prefer the oxygenated upper regions, while the anaerobes prefer the anoxic and dark lower depths. However, unlike our guts, a blue hole's bio-numbers decrease the deeper you go into the darkness; instead, our guts' bio-numbers increase at a staggering rate further down the gastrointestinal tract culminating in about 10^12 organisms per gram of lower intestinal fluid. Thinking of the specific topology of a blue hole or reef helps me visual the specific topology of the human gastro-intestinal tract. From mouth to anus, the GI tract is divided into regions that perform different functions and are characterized by different biogeography. Zipping by the parts we don't care about (much as a diver would quickly swim beyond the sandy border between land and sea to get to the reef)—mouth, throat, stomach—we suddenly come to a full stop when surrounded by the folds and peaks of the small intestine. Organized epithelial cells form the outer layer of these folds and peaks, called the mucus membrane. The mucus membrane increases the surface area of the gut, allowing for greater ability to absorb nutrients that flow through the GI tract. Further, upon closer examination of the small intestine, a writhing carpet of anemone-like villi with hair-like protrusions of microvilli covers the mucus membrane, giving the small intestine a surface area about the size of a tennis court. These structures virtually guarantee that nothing entering the GI tract will escape scrutiny—including any microbe-sized intrepid divers.

The villi have a very specific cellular organization with epithelial cells designed to absorb nutrients from ingested food at the top of each structure. These cells, like Bentham's Panopticon, see everything.Covered in a flowing mucus layer that, due to constant peristalsis and catastalsis, inevitably pulls

everything in the GI tract down down down, the villi as a whole serve as gatherers of nutrients, detectors of threats, and communicators to the rest of the human body what is going on in the outside world. The mucus layer is comprised of two layers: an insoluble layer that coats the epithelial layer and the viscous layer on top. The insoluble layer is sterile and adherent while the viscous layer acts as a moving filter for anything that enters the digestive tract.

Buried deep in the mucus layers, the crypts lie at the base of the villi. Human stem cells, like cave-dwelling sea life, safely reside inside these crypts, effectively protected from the busy ebb and flow going on the peaks above them. Stem cells make either new cells that migrate up the sides of the villi to become epithelial cells responsible for digestion and absorption of nutrients, mucus-secreting goblet cells, or hormone-secreting endocrine cells. In addition to the cells that leave the crypt, stem cells also make Paneth cells which—like two-headed guard dogs—stay in the crypt and secret defensins (antimicrobial peptides) and lysozyme granules when needed. There is a constant congo line of shift and change up and down the villi as new cells replace old cells that have died from apoptosis.

In addition to the movement and turnover of human cells in the small intestine, microbial cells also reside in the mucus layer. Though research is showing that the once thought sterile crypts do host microbes, most of them thrive in the outer layer of mucus in the border of the lumen. While their numbers are not as great as those microbes that live in the large intestine due to the rapid flow of mucus and nutrients down the tract, the microbiota in the small intestine play an important role in nutrient breakdown and immune regulation. Further, like the coral clinging to the sides of a blue hole, these organisms build complex networks and communities that allow them to thrive in an alien environment.

In order to secure itself to the rock wall of a blue hole, corals must secrete a substrate that allows them to attach. Similarly, microbes in the gut must find purchase for attachment. They do so by locating specific carbohydrates in the viscous layer which serve as sites for binding with the microbial surface. To an extent, the human host can control the microbes that can attach and colonize the gut by the types of carbohydrates that make up the mucus. However, this control is minimal; once bacteria colonize a region of the gut, some members of the colony can secrete carbohydrate anchors into the mucus that facilitate other bacteria to bind to the layer, enabling a thriving microbial community to form.

The microbial story in the lower intestine is much that same as that in the small with the exceptions that the numbers of microbes colonizing and thriving in this part of the gut increase by a few factors of ten. However, the topology of the lower gut consists of just the valleys and peaks of the mucus membrane minus the villi and crypts—think about it as leaving heavily wooded mountains and valleys and entering a rocky desert of high dunes—thus making microbe-host interactions more prevalent.

Traditionally, thought simply to be a necessary stop for indigestible material in order for the body to absorb more water before releasing waste, the lower intestine is proving to be the site of many essential interactions and exchanges between microbe and human–alien and self. The epithelial lining of the lower intestine contains far more goblet cells than that of the upper. Thus, the lower intestine secretes more protective mucus that form the barrier between microbiota and human cells. Further, human immune cells like dendrites and macrophages patrol the host side of the epithelial barrier, regularlytaking samples of the mucus content by thrusting feelers through the tight junctions between epithelial cells. These sampling sessions tell our systems whether or not we have been attacked by a nasty foreign object or are happily cohabiting with our microbial colonists.

The microbes in the large intestine break down much of the nutrients we couldn’t digest in the small intestine into host-accessible short chain fatty acids. Our epithelial cells absorb these fatty acids as well as vitamin products that microbe produce—notably vitamin K and biotin—through passive diffusion which starts them along the pathway to the liver for further processing. The anaerobic microbes accomplish all of this work of breaking down nutrient waste through fermentation.

I didn’t get to scuba dive when I went back to Guam last year. I don’t know if The Blue Hole is still as spectacular as I remember it. I have a sneaking suspicion that it will be smaller than I recall as are most things that live in our imaginations. But smaller doesn’t necessarily mean lesser. The smaller worlds within us command as much awe for their scope and intricacies as any earthly wonder. And falling off the edge of the world can happen inside our very selves."

REFERENCES...

Videos of Living Mother Earth at mudfossils.com