By J.T. Thon

DIRT: THE NAME CONJURES UP IMAGES OF A DEAD UNDESIRABLE THING.

WHEN CONTRASTED WITH THE MENTAL IMAGE OF THE WORD;

SOIL: A WORD THAT IS INFUSED WITH LIFE.



THE DIFFERENCE IS OBVIOUS.

"This will be a series of articles discussing the relationship between energy, soil and crop health. It is too large a topic to cover in one article; so it will be discussed over 3 volumes. These articles hopefully will serve as a starting point for the reader to investigate further. This topic is an iceberg of information, but if the reader looks under the surface, this knowledge will hopefully contribute to the once common ability to bring life back into the dirt and transform it into self-maintaining life giving soil. It is my hope you enjoy the quest." – J.T.Thon.

VOLUME 3.

In Vol. 3 we will explore the integration of everything discussed in parts 1 and 2 as well as the work of Rupert Sheldrake on Morphogenetic bioelectric fields, and review the work of John Burke and Kaj Halberg in the book <u>Seed of Knowledge Stone of Plenty</u>. We will also look at the farming technique of the <u>Permaculture</u> method invented by Bill mollison and the Cuban crises as an example of its successes. The integrated cultivation concepts discussed in all 3 volumes are critical to reversing the down ward spiral of living soil turning into denatured Dirt.

BEFORE WE LOOK FURTHER INTO THE TOPICS MENTIONED ABOVE, WE WILL MOVE OVER TO A SEEMINGLY UNRELATED FIELD OF SCIENCE. WE WILL TAKE A QUICK LOOK INTO THE TWO DOMINANT PERSPECTIVES WHICH HAVE EMERGED IN PHYSICS IN THE LAST TWO CENTURIES AS WELL AS A REVIEW OF HOW CHEMICAL FERTILIZERS WERE INVENTED. THE FIRST DOMINATE PHYSICS THEORY WAS POPULAR IN THE EARLY 19TH-20TH CENTURY IT'S CALLED NEWTONIAN PHYSICS OR CLASSICAL MECHANICS, WHICH IS A THEORY DESCRIBING THE MOTION OF MACROSCOPIC (WHAT CAN BE SEEN WITH THE NAKED EYE) OBJECTS. THE SECOND DOMINANT PERSPECTIVE IS QUANTUM THEORY. POPULARIZED AFTER THE 1960'S QUANTUM THEORY IS AN ATTEMPT TO EXPLAIN BEHAVIOR OF MICROSCOPIC (SMALLER THAN CAN BE SEEN WITH THE NAKED EYE.) PARTICLES, SUCH AS QUARKS AND NEUTRINO'S. NEWTONIAN PHYSICS HAS NOT BEEN TAUGHT IN UNIVERSITY PHYSICS AS A DOMINATE THEORY SINCE 1927; HOWEVER, BECAUSE CLASSICAL MECHANICS FORMULAS ARE STILL VERY ACCURATE AT PREDICTING MOTION/BEHAVIOR IN MACRO SIZED OBJECTS IT IS STILL TAUGHT IN SOME FIELDS SUCH AS MEDICINE AND ENGINEERING AND BIOLOGY.

One of the seductive aspects of Newtonian Mechanics is that it lends credibility to the philosophy of ontological reductionism¹. In other words something is only the

^{1.} Ontological reductionism: a belief that the whole of reality consists of a minimal number of parts.

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SUM OF ITS PARTS. A REDUCTIONIST BELIEVES THE UNIVERSE WORKS LIKE A WATCH AND THAT IF WE CAN TAKE IT APART AND UNDERSTAND EACH COMPONENT, WE CAN UNDERSTAND HOW TO CONTROL THE SYSTEM IN QUESTION. THIS PHILOSOPHY UNDERSCORED MUCH OF THE EARLY 19TH AND 20TH CENTURY SCIENTIFIC THOUGHT. THE REDUCTIONIST PERSPECTIVE WAS THE FOUNDATION BEHIND THE THOUGHT PROCESS OF THE INVENTOR OF THE MODERN NITROGEN CHEMICAL FERTILIZER INDUSTRY; FRITZ HABER. IN 1909 FRITZ HABER DEVELOPED A HIGH-TEMPERATURE, ENERGY-INTENSIVE PROCESS TO SYNTHESIZE² (IN THIS WORD WE CAN SEE THE REDUCTIONIST THEORY POPULAR AT THE TIME) PLANT-AVAILABLE NITRATES FROM AIR. AND SO AGRICULTURE'S MILLENNIA- OLD NITROGEN DEPLETION PROBLEM SEEMED TO BE SOLVED. TODAY'S INDUSTRIAL-SCALE FARMS WOULD NOT BE POSSIBLE WITHOUT IT. HABER'S BREAKTHROUGH FUELED THE U.S AND EUROPEAN MUNITIONS INDUSTRY, PARTICULARLY IN WORLD WAR II. "IN THAT WAY, THE INDUSTRIALIZATION OF FARMING SHARES ROOTS WITH THE INDUSTRIALIZATION OF KILLING REPRESENTED BY MODERN WAR. "-MOTHER IONES³

AFTER WW2, WITH EUROPE AND JAPAN'S NITRATE PRODUCTION FACILITIES IN RUINS THE UNITED STATES WAS ABLE TO MONOPOLIES THE POST WAR PERIOD WITH REGARDS TO NITROGEN PRODUCTION. THE INDUSTRY THAT NO LONGER WAS REQUIRED TO PRODUCE BOMBS, QUICKLY SHIFTED TO ANOTHER MARKET WHICH WAS CHEMICAL SYNTHESIZED FERTILIZER. IT'S A FACT THAT CHEMICAL FERTILIZERS CREATED LARGE INCREASES IN YIELD, AND ALONG WITH INCREASED YIELDS THE APPLICATION OF CHEMICAL FERTILIZERS WERE BEING SUBSIDIZED BY THE GOVERNMENT. RESULTING IN WHAT AT FIRST LOOKS LIKE A POSITIVE RESULT. HOWEVER, SINCE THIS WAS ACCOMPLISHED WITH TECHNOLOGY WHICH HUMANKIND HAD ONLY RECENTLY CREATED. THE LONG TERM EFFECTS WERE NOT KNOWN. NOW, HOWEVER, IT HAS BEEN PROVEN IN A VARIETY OF STUDIES ALL OVER THE WORLD AT THIS POINT; THAT USING CHEMICAL SYNTHESIZED FERTILIZER IN THE END is a net loss. Viktor Schauberger the Austrian Genius Polymath Inventor Discussed in VOL. 1 ALSO SHOWS THROUGHOUT THE BODY OF HIS WORK; WHEN CHEMICAL FERTILIZERS ARE USED THE SOIL IS BURNED UP AND EVENTUALLY DIES ESPECIALLY WHEN FACTORING IN HEALTH AND VITALITY OF THE CROP, ITS RESISTANCE TO PESTS, DISEASE, DROUGHT AND NUTRIENT DENSITY. NOT TO MENTION ITS TASTE AND THAT'S JUST THE CROP. THE WORST DAMAGE IS OF COURSE TO THE SOIL, THE SOILS DEPENDENCE AND RELIANCE ON THE CHEMICALLY SYNTHESIZED FERTILIZER BECOMES LIKE A DRUG ADDICT WHO ALWAYS NEEDS TO HAVE MORE AND MORE.

The Law of diminishing returns, which is in play with synthetic chemical fertilizers is contrasted sharply with living soils such as the Terra Preta soil discussed in vol. 1. The advantage with Terra preta soils which is to say the living soil biome community, is that it's self-perpetuating. The evidence for this is found in Brazil. Farmers whose land happens to contain some of land where the ancient Amazonian culture created Terra preta soil; mine the terra preta soil deposits and sell the soil as a soil inoculant to other farmers. The terra preta soil deposits are 8ft deep. The farmers mine the terra preta soil to 4ft. After leaving the newly mined section of the soil for 8 to 10yrs the farmer can then come back and harvest the terra preta again over and over. The terra preta soil completely regenerates itself back to 8ft in depth over 8 to 10yrs. This is a growth of 4 to 5 inches per year. The prof that Terra preta soil is a living self-regenerating community is clear. Therefore, the economic benefits to the farmer grow to almost priceless levels over time.

transitive verb

² Definition of synthesize

^{1:} to combine or produce by synthesis. Definition of synthesis

¹a: the composition or combination of parts or elements so as to form a whole

b: the production of a substance by the union of chemical elements, groups, or simpler compounds or by the degradation of a complex compound

³ https://www.motherjones.com/food/2013/04/history-nitrogen-fertilizer-ammonium-nitrate/

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The farmers in this way seed the dirt with the complex web of bacteria and fungus which is required for healthy soil. This is very similar conceptually to the way modern regenerative medicine is curing many intestinal and other degenerative disease in humans including autism and other mental health issues such as bi polar disorder by introducing a healthy intestinal biome from a donor in a "POO PILL". When this is done studies show drastic improvement in the body's health within 24 to 48hrs from the time of inoculation4. Brazilian farmers have seen similar results revivifying dirt into soil with as little as one shovel of terra preta per acre.

VIKTOR SCHAUBERGER THE "WATER WIZARD" DISCUSSED IN VOL. 1 SHOWS THROUGHOUT THE BODY OF HIS WORK; WHEN CHEMICAL FERTILIZERS ARE USED THE SOIL IS BURNED UP AND EVENTUALLY DIES. ONCE THE LIVING BIOME IN THE SOIL IS DESTROYED SOIL BECOMES DIRT AND IS ESSENTIALLY JUST AN INERT MEDIUM FOR THE ROOTS TO HOLD ONTO. FROM THAT POINT ON THE DIRT IS TOTALLY RELIANT ON THE ADDED FERTILIZER IN ORDER TO SUPPLY ENOUGH NUTRIENTS TO THE CROP. SO IN CONCLUSION, AS MANY EXAMPLES DISCUSSED IN VOL. 1 AND VOL. 2 HAVE SHOWN; THE SHORT TERM PRODUCTION INCREASE WHICH IS SEEN FROM USING CHEMICAL FERTILIZERS, IS OFFSET BY LOWER QUALITY PRODUCT AND HIGHER PRODUCTION COSTS. WHEREAS ORGANIC FARMERS WHO BUILD UP THE SOIL BIOME HAVE SLIGHTLY LOWER YIELDS TEMPORARILY WHILE THEY BUILD THE SOIL BIOME. THEY ALSO HAVE A HIGHER QUALITY PRODUCT, WHICH IS SOLD AT A HIGHER PRICE POINT AND WHEN CHEMICAL FERTILIZERS AND PESTICIDES COSTS ARE ELIMINATED IT'S LESS EXPENSE TO PRODUCE THE CROP WHICH RESULTS IN HIGHER PROFIT MARGINS FOR THE FARMER. WHEN COSTS DECREASE AND PROFITS INCREASE OVER TIME RATHER THAN DIMINISH; IT IS A MUCH MORE SUSTAINABLE TRAJECTORY THAN WHEN THE FARMER RELIES ON CHEMICAL FERTILIZERS.

Of course, this is not new information to farmers who follow organic methods. Organic Farmers have known soil is a living community since the late 1940's. In the book *Healthy Hunza's* written in 1947, the author mentioned on page 260:

"In a few words, Organic gardening is a method in which only vegetable and animal waste are used in building up and maintaining soil fertility. <u>It treats the soil AS A LIVING ORGANISIM AND TELLS HOW TO KEEP IT ALIVE</u>".

This quote shows that as far back as 1947 the concept that soil is a living organism has been part of the knowledge of Organic Farmers. So why reiterate it here over 3 articles being sent out to Organic Farmers? Good question.

The answer is; the concept that healthy productive soil requires a complex living community, is an important foundation to understanding the importance of something more subtle and difficult to perceive with our 5 human senses; E.M Fields. Although, the electro-magnetic field of the Earth as well as other modern technological sources of E.M.F.'s are invisible to the naked eye they surround us all the time, even if your farm is "off Grid" you are never off the Earth's Grid. Yet, despite many studies on how E.M.F's effect plants both pro and con⁵, E.M.F's are not often thought about by modern farmers even though, the proof of the benefits of applying this knowledge is already in.

One example among many at this point are the experiments done by Viktor Schauberger with the copper alloy bio-plow V.S. Chemical Fertilizers as shown in the book *Living Energies* by Callum Coats pg 255 and mentioned in vol. 1. Which proved over all crops categories that helping to maintain a healthy soil's energy field by using copper alloy farming implements to maintain the energetic integrity of the soil created a

⁴ https://youtu.be/cOIVT6wcCxY Dr David & Hui Chun Su Johnson. Talk about regenerative medicine and how it is similar to regenerative gardening.

⁵ https://www.researchgate.net/publication/313726390 Effect of Wi-Fi radiation on seed germination and plant growth - experiment https://youtu.be/G-zOWUlbHJw Forbidden technology the lost science of Ancient Megalith builders- john Burke Full lecture. (Author of Seed of knowledge Stone of plenty)

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SUBSTANTIAL INCREASE IN YIELDS. MUCH GREATER IN FACT THAN FERTILIZERS AND STEEL PLOWS COMPARISON TEST BEDS. ALSO EXPERIMENTS IN FRANCE HAVE SHOWN FURTHER PROOF THAT INTENTIONALLY NOT DISRUPTING THE E.M FIELDS IN THE SOIL, OR POLLUTING THE SOIL ENVIRONMENT WITH WI-FI AND CELL WAVELENGTHS AND EVEN ENHANCING CERTAIN E.M WAVELENGTHS TO BENEFIT SOIL BIOMES HAVE OUT CLASSED CROPS FROM ALL MODERN FARMING METHODS.

SO THE NEXT QUESTION IS TO UNDERSTAND: WHY ENERGY FIELDS BOTH NATURAL AND MANMADE EFFECT THE LIVING SOIL COMMUNITY? THIS IS WHERE THE SECOND DOMINATE THEORY OF PHYSICS COMES INTO THE PICTURE. QUANTUM THEORY OF PHYSICS LENDS AN UNDERLYING FOUNDATIONAL CREDENCE TO THE MAIN SUPPOSITIONS OF BIOLOGIST RUPERT SHELDRAKE AND HIS THEORY OF MORPHIC FIELDS AND MORPHIC RESONANCE⁶ THESE TWO THEORIES SEEM TO OFFER AN ANSWER TO THE WHY. SHELDRAKE HAS PURPOSED THAT THE MORPHIC FIELD IS A HARMONIZING E.M. FIELD COMPOSED OF THE EARTH'S E.M. FIELD AS WELL AS THE BIO-ELECTRIC FIELDS OF ALL THE BACTERIA, FUNGUS, MICRO-ORGANISMS AND INVERTEBRATES IN THE SOIL. THIS CHOIR OF E.M.F.'S SHELDRAKE PURPOSES IS THE MEDIUM WHERE BY THE COMMUNITY OF ORGANISMS COMMUNICATES AND EVEN STORES MEMORIES AFTER A FASHION. THIS WOULD EXPLAIN WHY DISTURBING THE MORPHIC FIELD'S ABILITY TO ALLOW THE COMMUNITY IN THE SOIL TO COORDINATE AND HARMONIZE UNDERMINES THE SOIL'S BIOME ABILITY TO BE A COMMUNITY. IN SHORT THE E.M FIELDS ARE ESSENTIAL TO THE PROPER FUNCTIONING OF LIFE.

OF COURSE SHELDRAKE'S WORK IS MUCH MORE DETAILED THAN PRESENTED HERE, IF INTERESTED ONE CAN FOLLOW THE LINKS PROVIDED IN THE FOOTNOTES FOR A FAR GREATER EXAMINATION OF THE MORPHIC FIELD THEORY. IF MORPHIC FIELDS ARE THE WHY OF THE QUESTION; MORPHIC RESONANCE⁷ IS THE HOW. SHELDRAKE PURPOSES THE FIELD IS USED BY NATURE TO EXECUTE A COMPLEX EXCHANGE OF INFORMATION AND IS HOW THE COMMUNITY OF NATURE COORDINATES. SO, IN OTHER WORDS THINK OF MESSING WITH THE MORPHIC FIELD OF THE SOIL LIKE SOMEONE JAMMING A MODERN CELLPHONE. HOW MANY OF US COULD LIVE AND COORDINATE OUR LIVES WITHOUT A LINK TO THE TECHNOLOGICAL SHADOW OF THE MORPHIC FIELDS, THE INTERNET?

WE DISCUSSED IN ALL 3 ARTICLES WHY UNDERSTANDING THE IMPORTANCE OF ELECTROMAGNETIC FIELDS (E.M.F'S) TO THE HEALTH OF THE INTERCONNECTED WEB OF RELATIONSHIPS IN THE SOIL IS IMPORTANT AND HOW THIS WAS USED THROUGHOUT HISTORY TO CREATE ABUNDANCE OF VITAL NUTRIENT DENSE FOOD. UNDERSTANDING AND IMPLEMENTING THIS KNOWLEDGE IN AGRICULTURE IS MIRRORED IN HOW MODERN WESTERN MEDICINE IS NOW LEARNING WHAT COUNTRIES LIKE CHINA, TIBET AND INDIA HAVE KNOWN FOR THOUSANDS OF YEARS THAT THE ENERGY BODY IS THE FOUNDATION OF THE PHYSICAL AND NOT THE OTHER WAY AROUND.

BECOMING AWARE OF THIS AND ADAPTING OUR MODERN FARMING PRACTICES TO THE REDISCOVERY OF THE KNOWLEDGE THAT PROPER MANAGEMENT OF YOUR ENVIRONMENTAL E.M.F'S IS CRITICAL TO LONG TERM HEALTH AND VITALITY OF SOIL AND BY EXTENSION THE CROPS WHICH GROW IN THE SOIL AND EVEN FURTHER TO THE ANIMALS AND PEOPLE WHO CONSUME THESE CROPS IS OF PARAMOUNT IMPORTANCE. THE AWARENESS OF HOW ENERGY EFFECTS SOIL HEALTH IS THE NEXT PARADIGM ADVANCEMENT IN FARMING. IN ONE SENSE IT IS A LEAP FORWARD; YET, IN ANOTHER IT IS A RETURN TO A KNOWLEDGE AND TRUTH WE ONCE KNEW.

WE CAN SEE THAT THROUGHOUT HISTORY THE KNOWLEDGE OF HOW TO USE THE INTRINSIC ELECTRO-MAGNETIC FIELDS PRODUCED BY THE PLANET EARTH IN SUCH A WAY TO ENHANCE LIFE WAS SOMETHING ONCE TREASURED. THESE SO CALLED "PRIMITIVE" CULTURES WHO POSSESSED THIS TREASURED KNOWLEDGE SHOWED ARGUABLY A GREATER WORKING KNOWLEDGE OF THE INTERCONNECTED NATURE OF OUR ECO-SYSTEM THAN OUR CURRENT MORE TECHNOLOGICALLY ADVANCED GLOBAL CULTURE. ONE MODERN REVIVAL OF THIS UNDERSTANDING IS THE

⁶ https://www.sheldrake.org/research/morphic-resonance

⁷ https://byjus.com/physics/resonance/ Meaning of "Resonance"

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PERMACULTURE⁸ SYSTEM OF FARMING. PERMACULTURE, INVENTED BY BILL MOLLISON AND DAVID HOLMGREN; IS SYSTEM WHICH USES A SET OF PRINCIPLES DERIVED FROM WHOLE-SYSTEM THINKING9. JUST FOUR PERMACULTURE ADVISORS SENT BY BILL MOLLISON WERE RESPONSIBLE FOR REVIVIFYING Cuba's ecological disaster. In the late 1980's early 1990's. Cuba's food crises was created AFTER THE COLLAPSE OF THE SOVIET UNION; WHEN BECAUSE OF A NAVAL BLOCKADE ENFORCED BY THE UNITED STATES CHEMICAL FERTILIZER COULD NOT BE SENT BY RUSSIA TO CUBA IN ORDER TO SUPPORT ALL THE MONO-CROP SUGAR CANE PLANTATIONS BEING GROWN. THE SUGAR PLANTATION WERE WITHOUT THE IMPORTATION OF CHEMICAL FERTILIZERS, JUST SO MUCH DEAD DIRT. THIS WAS COMBINED WITH THE INABILITY DUE TO THE BLOCKADE OF CUBA BEING ABLE TO IMPORT FOOD AS IT USED TO DO TO MAKE UP FOR THE SHORTFALL IN FOOD PRODUCTION. OBVIOUSLY THIS CREATED A VERY DANGEROUS SITUATION FOR CUBA. ONE CAN SEE IN THE DOCUMENTARY <u>PEAK OIL</u> THAT IT TOOK 15 YEARS TO TURN THE DEAD INERT DIRT OF THE CUBAN SUGAR PLANTATION INTO RICH LIVING BLACK SOIL 3 FEET IN DEPTH. NOW THANKS TO PERMACULTURE SYSTEMS THEY PRODUCE AN ABUNDANCE OF NUTRIENT DENSE FOODS AND ARE NO LONGER IN DANGER OF STARVATION. IN ADDITIONALLY THE WORK BY FARMERS TO MAINTAIN AND CREATE THE SOIL IS ALMOST NOTHING DUE TO THE THRIVING COMMUNITY OF LIFE IN THE SOIL DOING THE WORK FOR THE FARMERS?

Permaculture like Viktor Schauberger believes in copying flourishing natural ecosystems. If we humble ourselves enough to hear the symphony going on around us, we will enter a new era of plenty. Remember this is just the start of the quest. Enjoy.

⁸ Meaning of Permaculture: https://en.wikipedia.org/wiki/Permaculture

⁹ Meaning of Whole-system thinking: https://en.wikipedia.org/wiki/Systems theory