

THE IDEA THAT CHANGED THE WORLD:
ACCRETION, THE “WAY”, THE UNIVERSE AND KNOW HOW

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ABSTRACT

This paper deals with socio-economic evolution. It considers the main drivers of change and stability in the three main stages of socio-economic evolution of mankind the hunter gatherer, agricultural and capitalist. It sees the energy driving change these ages as coming from the access mankind chose to make in each to different sources of stored value, respectively, direct by being embedded in nature, direct by cultivating and indirectly by exploiting nature's stored value..

This is done against the backdrop of the stage we are just entering where man is working to use his capacity to learn and understand to put mankind in a sense outside time by being exploiting the energy embedded in the fundamental eternal forces of the universe,

The fundamental position taken is that to understand the process of socio-economic evolution one needs to focus on on process not form. It is what changes on what time scales by what means that matters not what anything look like during its inevitably short existence in a stable form. This is not so much in terms of its underlying reality but in the way we are slowly beginning to see such things from a moral, emotional and physical perspective.

INTRODUCTION

Great truths are self evident, simple and known but not realised. Humanity's capacity to understand storage is such. It has huge social significance. It seeded humanity's distinctness. It was the base for civilisation. It provided impetus for modern society. It offers post modern society conscious re-integration with the “Way” of a universe we never left. This work explains.

The “Way” is a processes not a form. Processes are eternal. We can sense the forms they create but processes are experienced not sensed. Humans re-discover this regularly. Such re-discoveries have profound effects. Lao Tse's wrote the “Tao Te Ching” 2500 years ago encapsulating the process of the Way of “the World the Universe and Everything”. In it one finds the “big bang”, agricultural and military technology and “modern” thought on geology and leadership. In brevity embraces the infinite.

Humanity has evolved to both know and understand . Modernist thinking encourages belief only in what we can see, touch and thus know. It discourages faith in the envisioned, understood and felt. It suspends comment on the unobservable. We can

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thus fail to understand what we know or know what we understand. Not least is a failure to do due diligence on our minds. We forget that what we sense is a construct of our capacity to think and reason not necessarily what exists.

Given the right perspective we do understand what has created what we feel we know. The forms that are but fleeting manifestations of the unobservable process. What we believe we sense is always temporary even when renewed. Forms are the fruits of processes just as mushrooms are the fruits of fungi. The fruits can be seen. The processes creating them not. A fungi may invest a field yet we only see a few mushrooms derivative of its process. Here one day, gone the next..

Humanity is such a fleeting form. Compared to dinosaurs we are as mushrooms in our planet's story. The dinosaurs themselves play a tiny part. The planet itself is a stripling child of a sun that is itself of very minor significance on the periphery of an unimaginably massive, but nevertheless small, galaxy that is one of billions sparsely scattered over the infinite field of our universe. The Way is all this: the universe, galactic clusters, our galaxy, our star, the sun, our planet, us.

This was the perspective from which Lao Tse, Newton, Einstein et al could see the Universe as a unified process. On this view the Bible's story of creation could easily be treated as as good an account of things as was possible before modern scientific language evolved . From the latter's perspective time has no autonomous meaning. The “Big Bang” view currently holding sway suggests that the processes of universal evolution came into being in a very short space of time. Seven days as the bible perceives them may even be too long a time but what is a day on the Way of the universe. The creation of man was indeed the physically observable matter of the universe, earth. The sequences by which life and mankind came to be may well be as described in Genesis.

To see creation as something distinct from science is to deny the word of God. Science affirms the reality of its understanding. Contradiction is in our thought not the Way of the universe. People who feel they know instead may understand but chose to feel that what they know contradicts what those who know understand. Fortunately man collectively knows and understands. Literal creationism and evolutionary evangelism are equally right.

The processes of evolution excrete forms. These are what we observe. It is our well developed capacity to understand the relationship between these and through them the processes creating them that we find the roots of our distinctiveness. Such excretions tend to come, we hypothesize always come, from accretion brought about by tension between two forces, one expansive one constraining. In our solar system's case gravitational forces drew clumps of gas together and from it accreted heavier materials that slowly coalesced into planets separated from the main body of the system, the sun, which bathes them all in the expansive heat energy that supports the life on our home planet.

From the heat radiated into it from the sun and the residual heat of our particular accretion of stored mass and the evolution of our planet began. Various processes driven by expansive heat energy modulated by gravitational constraints slowly transformed its physical composition, shape and structure. Causing the accretion of local concentrations of particular materials that react to such forces in different ways –

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heavier metals such as gold and silver coming together in pockets that we call veins, light elements combining together to form complex molecules such as methane and water some of which we believe reacted together to form the complex mixtures of substances that through continual flux driven by heat and gravity eventually became what we choose to see as life.

Water is Lao Tse's favourite substance. It has little evident substance yet is fundamental. It is everywhere. Its continual flux from solid to liquid to vapour has shaped our planet and us.

The radiated heat of the sun raises the temperature of the water in oceans, seas, lakes and rivers. This water then evaporate and as moisture rises into the atmosphere. There it loses heat. In cooling it precipitates as rain, snow or hail. This may form ice, a unique process in which the solid has a greater volume than the liquid it comes from. This expansion cracks open even the most massive rock the water has permeated. Thus as liquid then solid then liquid under the force of gravity water erodes mountain ranges into plateaus and produces the mud in river beds and the sea erodes cliffs and shells to produce the sand on the shore. Mud and sand is sub-ducted by gravitational and heat energy into the bowls of the earth and transformed by heat, gravity and pressure into rock that may eventually form new mountain ranges in form very different from that from which they were original created by the cosmic, solar or planetary forces of evolution. By such means the Way excretes then stores the locally accessible accretions of minerals iron, copper, zinc, silver, gold, shale, sandstones etc that modernist man has learned to exploit.

Modernist man has evolved understanding of these process and thus become more and more successful at exploiting them to what many see as selfish purely human purposes out of synchronization with the needs of our planet or the Way. Such thinking takes human arrogance to its most unhelpful limits. We are of the Way. We cannot be off it. We are minuscule in its processes. We can not be separate from them. What we do is of its doing not ours. We cannot encompass thatit.

Our re-awakening awareness of the finite nature of our planets resources and that we are using them at an unsustainable rate is thus of the Way not off it. It is an awareness we evolved to have. It is by definition of the Way. We evolved on the Way to know, understand and respond effectively to it. We respond. We do not react. We may chose to do nothing. It is our choice. Whatever we do the Galactic Express Way the "Vogans" are building will be built. Our choice is to be in it or on it.