

## Timewave Zero by Terence McKenna

Time, like light, may best be described as a union of opposites. Time may be both wave and, ultimately, particle, each in some sense a reflection of the other. The same holographic properties that have long been an accepted part of the phenomenon of the perception of three-dimensional space also suggest that interference patterns are characteristic of process. Living beings especially illustrate this: They are an instance of the superimposition of many different chemical waves, waves of gene expression and of gene inhibition, waves of energy release and energy consumption forming the standing wave interference patterns characteristic of life. My brother Dennis and I hypothesize that this wave description is the simple form of a more complex wave that utilizes the simple wave as the primary unit in a system of such units, combined in the same way as lines are combined into trigrams and then hexagrams in the I Ching. I will argue that this more complex wave is a kind of temporal map of the changing boundary conditions that exist in space and time, including future time. We have called the quantized wave-particle, whatever its level of occurrence within the hierarchy or its duration, eschaton. We don't think about time because we take it for granted like breathing, but consider our hypothesis that the space-time continuum is a modular wave-hierarchy. The eschaton is a universal and fractal morphogenetic field, hypothesized to model the unfolding predispositions of space and time. This structure was decoded from the King Wen sequence of the I Ching, and was the central idea that evolved in the wake of the events of La Chorrera as described in "True Hallucinations."

I've been talking about it since 1971, and what's interesting to me is, at the beginning, it was material for hospitalization; now it is a minority viewpoint and everything is on schedule. My career is on schedule, the evolution of cybernetic technology is on schedule, the evolution of a global information network is on schedule. Given this asymptotic curve, I think we'll arrive under budget and on time, December 21, 2012.

The King Wen sequence of the sixty-four hexagrams of the I Ching is among the oldest structured abstractions extant. It has been found scratched on the shoulder bones of sheep that have been dated to 4000 BC, so we do know that this sequence existed very early in ancient China, yet the nature of the ordering principles preserved in that sequence remains unelucidated. The I Ching is a mathematical divinatory tool whose probable origin is the mountainous heart of Asia, the home of classical shamanism and Taoist magic. The I Ching is a centrally important part of humanity's shamanic heritage that is rich in implications.

The I Ching is particularly concerned with the dynamic relationships and transformations that archetypes undergo; it is deeply involved with the nature of time as the necessary condition for the manifestation of archetypes as categories of experience. The I Ching, through its concern with detailing the dynamics of change and process, may hold the key to modeling the temporal dimension that metabolism creates for organisms, the temporal dimension without which mind, as we know it, could not manifest.

The intellectual problem that led me into studying the I Ching so thoroughly was simply a wish to

understand the ordering principles that lay behind the King Wen sequence. I set myself to examine it as an object mathematically definable, possessing certain kinds of symmetry, in order to try to discover the ordering principles that lay behind it. It is not simply 64 hexagrams in some random association, but rather the hexagrams occur in pairs, and the problem of determining the ordering principles is thereby reduced to a more manageable set of 32 elements--the second term of each pair is the inversion of the previous hexagram, and there are eight cases when the natural structure of the hexagram makes its inversion ineffective in changing any of the lines.

Explaining the order of the thirty-two pairs is rather more tricky and involves a certain amount of intuitive insight. The quality that I chose to examine in trying to reason what the ordering principle among the thirty two pairs might be is called the first order of difference, taking this essentially mystical diagram and turning it into a rationally apprehensible diagram, as described in the standard terminology that has been evolved for the handling of graphically portrayed information. I succeeded in doing this in 1975 and 1976 by quantifying all the qualities of the wave that I was interested in preserving -- qualities like skew, overlap, degree of parallelism, and similar values. I figured out a quantification scheme that preserved these qualities as numerical entities. Through a process of collapse of the wave I went further and actually graphed the first order of difference of the hexagrams, seeking again time ordering principle. A figure of this work is displayed in "The Invisible Landscape."

The paradox of hypermodernity is that one can only understand it if one goes back 100,000 years in time. History is an anomaly. History is a complete fluke. It's a brief, episodic, transitional phenomenon. It's not going to leave more than a centimeter of deposition in the strata of this planet. It is the platform from which we will launch the collective soul of our species out into the higher life of the galaxy. We use the metaphor "Mother Earth," but if the earth is our Mother then we must be parted from her. The earth may be the cradle of humankind but you don't stay in the cradle forever unless there is something wrong with you. So earth is the platform, and psychedelic substances, human machine interphasing, nanotechnology, quantum-distribution of information are the means.

We are on the brink of possibilities that will make us literally unrecognizable to ourselves. And those possibilities will be realized not in the next thousand years but in time next 20 years, because the acceleration of invention and novelty and information transfer is at this point so rapid.

Timewave Zero is an exploratory idea system and a software package that runs on personal computers. It is the broadcast output of the naturally superconducting experimental deoxyribonucleic matrix transceiver operating in hyperspace. We believe that by using such ideas as a compass for the collectivity, we may find our way back to a new model in time to reverse the progressive worldwide alienation that is fast hurling us into an ecocidal planetary crisis. A model of time must give hope and overcome entropy in its formal composition. In other words, it must mathematically secure the reasonableness of hope. This theory, and indeed the mathematical theory of dynamic systems in general, does this by securing in a formal manner the process by which transformation can naturally arise and persist out of a background of flux. It becomes increasingly clear that we are now experiencing a period marked with extreme density of novel ingressions, a time when the rational and acausal tendencies inherent in time may again reverse their positions of dominance.

If the wave model is a valid general theory of time, it should be possible to show why certain periods or places have been particularly rich in events that accelerate the creative advance into novelty. It should also show where and when in the future such events might be expected to recur. To carry out this operation, a personal computer has proven indispensable. A group of programs implementing these ideas has been written by Peter Meyer. The program is called Timewave Zero. The software takes these theories and discoveries concerning the I Ching and creates time maps based upon them. The time maps, or novelty maps, show the ebb and flow of connectedness, or novelty, in any span of time from a few days to tens of millennia. The theory is not deterministic; it does not say what will happen in the future, it only predicts the level of novelty that whatever happens will have to fulfill. As such, it operates as a map, or simplified picture, of the future (and past) behavior of whatever system is being studied. The end date is the point of maximized novelty in the system, and is the only point in the entire wave that has a quantified value of zero.

December 21, 2012 A.D. We arrived at this particular end date without knowledge of the Mayan Calendar, and it was only after we noticed that the historical data seemed to fit best with the wave if this end date was chosen that we were informed that the end date that we had deduced was in fact the end of the Mayan calendar.

In all the novelty maps, when the graph line moves downward, novelty is assumed to be increasing. When there is movement away from the base line, novelty is assumed to be decreasing in favor of habitual forms of activity. Time is seen as the ebb and flow of two opposed qualities: novelty versus habit, or density of connectedness versus disorder. In this we see clearly that one trend toward greater novelty reached its culmination around 2700 B.C., precisely at the height of the Old Kingdom pyramid-building phase. Then a countermovement toward predictable forms of behavior asserted itself and increased in importance until around 900 B.C. At that time, around the time of the consolidation of Mycenaean sea power, the tendency toward habituation was overcome and replaced by a long cascade into greater and greater novelty, which reaches its culmination early in the twenty-first century.

The career of novelty is revealed to be a process that is punctuated by subprocesses. These mitigate, modify, and influence an overall general tendency toward greater and greater novelty. The theory shows the last 1,500 years to have been highly novel times that have oscillated at levels of novelty very close to the horizontal axis, the maximized "zero state"

Agreement between the historical record and the ebb and flow of the wave argues strongly that the Timewave is, in fact, able to accurately portray the evolution of historical patterns of change. The theory of time that is implied by the Timewave is a theory of time as a fractal, or self-similar, wave. A fractal wave comes quite naturally equipped with an extensive set of internal resonances that show a formal, but acausal, linkage between events and periods of time, which may be widely separated from each other in space and time.

So, for example, when we look at events of the 100 years leading up to the Mayan calendrical termination, we see that the graph is topologically similar to the graph that we have said applied to the

past several thousand years. My interpretation of this is that it means that shorter duration subsets of the fractal curve of time are microversions of the larger pattern in which they are embedded. Such an idea lays the basis for understanding such phenomena as fads, fashion, and the occasional wave of historical obsession that characterize society.

Imagine zeroing in on the point in which the wave passes out of the past and into the future. The stupendous idea of an end of time is an attempt to negate the eternal stasis, to break the circle. All peoples who have awakened to the suffering and hope of the condition humaine have arrived at this idea, each in its own way. The other peoples who have created a world for them selves have also appointed an end to it: Indians, Persians, Greeks, Arabs, and Jews. This final time revolutionizes the course of the world. We are familiar with the Gnostic intuitions of the first and second century suggesting that energy is the "divine light" that is trapped in matter, and that energy, in order to free itself, must evolve itself through progressively subtler stages until it generates self-reflecting consciousness, which can then evolve techniques for freeing all energy from matter.

Like this myth, all ideas of salvation, enlightenment, or utopia may be taken to be expressions in consciousness of the drive of energy to free itself from the limitations of three dimensional space and return to the uncontaminated essence of itself in an epoch of realized concrescent satisfactions. Concrescent satisfaction includes the notion of energy unbounded by space or time. This means, for our theory, that at especially low-value regions of the modular wave-hierarchy a quantum jump should occur in the concrescent process.

What this advance of novelty is, and what the process of becoming may be seen to be in essence, is the revelation of the interspecies' mind. In human beings, it is approached through the nonmetabolizing neural DNA scattered through the body, and for humans it becomes apparent as a higher cortical phenomenon, as an experience, and as a confrontation with the Jungian "collective unconscious." This revelation and its integration into the field of shared experience is a process of transformation of the previously limited ego. The many magnitudes of duration in which the levels of the modular hierarchy of waves can be supposed to be operable exceed, at both ends of the scale, any physical processes known to occur.

Language and its appearance is a recent instance of concrescence. It is a recent form of novelty, having been in existence not more than a million years. As a concrescence occurring in our species, it may provide a clue to the path that evolving human, novelty will take in the future. Following the acquisition of language, the advance into novelty, now in part self reflecting, continued on a higher level. The most recent of these major new levels of coordinated organization may be embodied In the epoch of electronic communications and the furiously evolving postrelativistic consciousness of the twentieth century.

Language is the embodiment of meaning. Meaning signifies organization, and there is no organization without purpose. What is the purpose of organization? Is it perhaps to retard entropy? In such a case, the meaning of meaning for that which apprehends meaning is the necessity to purposefully create and maintain order. (Prigogine, Ilya, Gregoire Nicclis, and Agnes Bablyoyantz "Thermodynamics of

Evolution." Physics Today November-December 1972).

The great puzzle in the biological record is the suddenness of human emergence out of the primate line. It happened with enormous suddenness. Lumholtz calls it the most explosive reorganization of a major organ of a higher animal in the entire fossil record.

All of biology is, in a sense, a conquest of dimensionality. That means that animals are a strategy for conquering space/time. Complex animals do it better than simpler animals, we do it better than any complex animal, and we twentieth century people do it better than any people in any previous century because we combine data in so many ways that they couldn't -- electronically, on film, on tape, and so forth. So, the progress of organic life is deeper and deeper into dimensional conquest. From that point of view, the shaman begins to look like the advance guard of a new kind of human being, a human being that is as advanced over where we are as we are advanced over people a million years ago.

Biology constantly changes the context in which evolution occurs. I have downloaded this into a phrase: "The universe -- the biological universe at least -- is a novelty-conserving engine." Upon simple molecules are built complex molecules. Upon complex molecules are built complex polymers. Upon complex polymers comes DNA. Out of DNA comes the whole machinery of the cell. Out of cells come simple aggregate colony animals like hydra and that sort of thing. Out of that, true animals. Out of that, ever more complex animals with organs of locomotion, organs of sight, organs of smell, and complex mental machinery for the coordinating of data in time and space. This is the whole story of the advancement of life.

In our species it reaches its culmination and crosses over into a new domain where change no longer occurs in the atomic and biological machinery of existence; it begins to take place in the world that we call mental. It's called epigenetic change-Change that cannot be traced back to mutation of the arrangement of molecules inside long chain polymers, but change taking place in syntactical structures that are linguistically based.

This idea requires a fairly radical reorganization of consciousness, because what I'm saying is the universe was not born in a fiery explosion from which it has been blasted outward ever since. The universe is not being pushed from behind. The universe is being pulled from the future toward a goal that is as inevitable as a marble reaching the bottom of a bowl when you release it up near the rim. If you do that, you know the marble will roll down the side of the bowl down, down, down -- until eventually it comes to rest at the lowest energy state, which is the bottom of the bowl. That's precisely my model of human history. I'm suggesting that the universe is pulled toward a complex attractor that exists ahead of us in time, and that our ever-accelerating speed through the phenomenal world of connectivity and novelty is based on the fact that we are now very, very close to the attractor.

Terrence McKenna and Sound Photosynthesis are celebrating the debut of the Timewave Zero video, the new versions of the TimeWave Software in both Mac and MS/DOS versions and the Concrecence of McKenna Material Catalog.

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