

# FRACTAL PROPHETS

## Reflections on:

## Margaret Wheatley's Leadership and The New Science

### Seeing the shape of the future in the light of: Scripture and the New Physics.

This decade at the edge of the next Millennium is the most astonishing era in human history. Exponential change in almost every area of life has rocked all levels of society, in culture, business, education and the church. No-one is exempt. Change is a double-edged sword. Each new advance can also potentially abuse. Awareness of the dynamics of these shifts gives us ability to be helped and not hurt by change that must inevitably come.

Significant study fields that shed light on the dynamics of organizations and ministries are some implications of the new Chaos math and Quantum physics. Chaos is a new science that seeks to map the nature of dynamic systems in fractal forms. Quantum theory looks at the way things seem to act in the most fundamental way, at a sub-atomic level. God's creations in nature when they move or are alive behave differently than what we previously thought. Old models based on a simple cause-and-effect paradigm don't always match the way things actually are. Biblical insight from such studies can help us deal with areas in which there is rapid change and constant shift.

**Fractals:** Most of the patterns in nature (clouds, trees, waves etc.) are FRACTAL forms; newly-discovered, never-repeating common-shaped structures. Like the mathematical symbol or  $22/7$ , fractals are equations that contain unending diversity. Each is a relatively simple expression. But that defined distinct structure has in itself infinite variety. "... all FRACTAL patterns are defined by a simple rule and successive iterations of feedback. New information feeds back on itself. Simple iteration liberates the creative potential complexity hidden within it." (Wheatley; p.114)

**Principle of Complementarity:** (Unity expressed in Diversity). No fractal even of the same kind is identical. All of nature bears the mark of its Triune Creator. Any true work of God will have both sameness and difference. No members of a true church, a work, a business, or ministry should all look exactly alike, or be all going in totally different directions. They will have in common with all other real works of God both sameness (one body) and difference (many members).

#### **Information - Structuration** (Information Structures Matter)

"Something we cannot see, touch or get our hands on is out there, organizing life. Information is managing us." (Karl Weick, Organizational theorist) The non-material precedes matter. "In the beginning was the Word, and the Word was with God and the Word was God." (Jn. 1:1)

**Continual Revelation:** Gather Manna fresh every day: "For a system to remain alive, information must be continually generated. If there is nothing new, or what exists merely confirms what is, then the result will be death. Isolated systems wind down and decay, victims of the laws of entropy. The fuel of life is new information, novelly ordered into new structures." Don't name an awakening until it is over. A disciple is a learner.

**Strange Attractors:** "Though random and not predictable it never exceeds a finite border. (Order without predictability). One rule: remain consistent with itself and its past." A ministry is shaped by its seed calling and defined only by that shape. The presence of the guiding rule allows for both creativity and boundary. (Meaning, knowing & belonging; the Way, the Truth and the Life)

**Autopoiesis** (Self-production): The characteristic of living systems to continually renew themselves and regulate these processes in such a way that the integrity of these structures is maintained. Life has

real rules and you keep them. Break them for long and you die.

**New Bodies:** "Your skin is new every month, your liver every six weeks, brain about every 12 months. All of us are like a river, frozen in time and space. In spite of this, we remain rather constant due to the organizing function of information in our DNA." (software wires the wetware) "What is a cell? It is a memory that has built matter around itself forming a specific pattern. Your body is just the place your memory calls home." (Chopra, 1989) The things you see are not always the things that last. What profits a man who gains the world but loses his soul?

**The Body Under the Head:** "A well-ordered system is defined not by how many brain parts it has, but by how much information it can process. The greater the ability to process information, the greater the level of consciousness." (p.107) (Computer power is not in hard-disk storage but in chip throughput). Good listening is more significant than big speaking. We need hearing hearts.

**Staying Flexible:** Any work or ministry can only exist in a fluid fashion if it has access to new information, constantly processing data with high levels of self-awareness plentiful sensing devices and a strong capacity for reflection - constant change and combination. And after the fire, a still small voice... Write the vision and make it plain that he may run that reads it.

**Sensitive Dependence On Initial Conditions:** Very small differences in the beginning of a systems evolution make prediction impossible. Ministries are not machines. Replace one member of the Body and you alter the whole body. Be faithful in little things. Grieve not the Holy Spirit.

**Dissipative Structures:** "Balance" vs. the Radical Factor: Disorder is the source of new order. Dissipation need not lead to demise, but the letting go of its present forms so it can re-emerge in a form better suited to the demands of the present environment. "Except a corn of wheat fall .."

**"Ax is Laid To The Root of The Tree:"** Things that disturb equilibrium play a crucial role in creating new forms of order. If a system pays attention to information it grows in strength as it interacts and feeds back on itself (autocatalysis). It grows to such a level of disturbance the system can no longer ignore it. Jarred, it falls apart, but it can reconfigure itself to a higher level of complexity. Growth is found in disequilibrium, not balance. Be perfect as your Father in heaven.

**Prophets Role:** Roving Leadership - "indispensable people in our lives who are there when we need them." (Max DePree, Herman Miller CEO). It is the business of the prophet to discern what kings cannot see and speak what kings cannot bear. Don't scorn the voice in the wilderness.

**"You Shall Know The Truth"** High levels of autonomy and identity result from staying open to information from the outside. (p.9) A man wrapped up in himself makes a pretty small package. Everyone needs a continual, infinitely-open-ended trustworthy source of truth.

Neural Nets "Instead of a single channeled flow of information we have images of neural nets transmitting information in all directions simultaneously." In a hologram, every part contains enough information in condensed form to display the whole. I in You and you in Me (John 17:1)

## QUANTUM GUIDANCE

### Quantum Physics:

"Anyone who is not shocked by quantum theory has not understood it" (Niels Bohr)

Matter can be particles (localized points in space) or waves (energy dispersed over a finite volume) This total identity = a wave packet. Particles seem to remain "fuzzy bundles" until observed - only then do they become a thing. The form seems to emerge in the shape expected by the observer. Thus, at quantum levels, absolute prediction, and uniformity are impossible - it includes potentiality for both. The choices we make as to how we will measure our quantum universe seem to determine how that universe reveals itself to us. It is the Forest Gump question: Is life like a box of chocolates like

Mom said - you never know what you're gone get? Or is it. Lt. Dan right and destiny rules? What makes the real change is when God shows up. Choices do not create reality but are essential to its manifestation; they evoke a potential already present.

**Newtonian View of the Universe** - Characteristic: Determinism, absolute prediction.

Reduction into parts: "Thing" view of the Universe; belief in true scientific objectivity.

Knowledge broken into disciplines and subjects; believed you could just study the parts to know the whole. People fragmented and counseled to use different "parts" of themselves. Reduced, described, separated into cause and effect. The Newtonian machine world was filled with fixed boundaries; every piece knew its place, roles, accountabilities, lines of authority and limits to responsibilities. What was discovered instead was a silent world; Classical Science revealed to man a dead, passive nature; it isolated man from nature instead of bringing him closer. Our science debased everything it touched. (pp. 33-34) Economics, culture and theology did not escape either.

Newton	Quantum
Things	Patterns
Reality	Relationships
Elementary Particles	"Bundles of potentiality"
Structures	Fields
Particles	Relationship sets
Predictability	Potential
Absolute Predictability	Flexibility, "Suddenness"
Uniformity	Diversity
Stability (or Boredom)	Risk, Unsettling (or Adventure)

Not only are we fuzzy, the whole universe is. The wholeness of the universe resists being studied in pieces. When we study individual parts or try to understand the system through its quantities we get lost in a world we can never fully measure or appreciate. (p.129).

Only God has the Big Picture; God is God and you are not.

"I want to move through a Universe I trust so much that I give up playing God."

(Margaret J. Wheatley - from Leadership & The New Science C 1992 p/b 94 US\$15.95 Berrett Koehler Publishers Inc. 155 Montgomery St. SF, CA 94104-4109)

## CHAOS MINISTRIES

**Chaos:** The final state in a systems' move away from order. But in the realm of chaos when everything should fall apart, the strange attractor comes into play. A "basin of attraction" pulls the system into a visible shape. The salvation of a system lies outside of it.

**A Chaotic System:** impossible to predict where it will be next, yet if you look back long enough, you see inherent order. Order exists within disorder and disorder where there is order. In the ballet of chaos and order, change and stability are the two complementary aspects to the process of growth, neither of which is stable. Don't settle for form OR freedom.

"Force that shapes behavior in FRACTAL organizations is the combination of simply expressed expectations of acceptable behavior and the freedom available to individuals to assert themselves in non-deterministic ways." (p.132). FRACTAL ministries keep the spirit of the law foremost above the letter and allow members the true priesthood of all believers.

Guiding visions, strong values, organizational beliefs, clarity of purpose and direction - maintain focus, not control, creates the flexibility and responsiveness every organization craves. A leaders

call in a chaotic world is to shape through concepts not through elaborate rules or structures.  
"Received ye the Spirit through the works of law or by the hearing of faith?"

**Every Place Your Feet Tread:** "If any man will do the will of God he shall know." Environment remains uncreated until we interact with it. Abstract planning divorced from action becomes a cerebral activity conjuring up a world that does not exist.

IN-Formation - the real system which endures and evolves is energy. Matter flows through it assuming different forms as required. (p.37) At higher levels energy systems manifest themselves in the organization of material processes and structures. All that is in the world will pass away. But he that does the will of God abides forever.

### **Staying In Focus For Work & Ministry**

Strategies should be "just-in-time"; new wine in new bottles also saves the old bottles.

(I) Become "**All Things To All Men**" - More investment in general knowledge

**Sophia** - Wisdom - big picture, revelation absolutes,  
**Phronesis** - Prudence - what to seek, what to avoid - practices.  
**Sunesis** - Understanding - illumination.

(II) **Learn more skills** - develop a large skill repertoire.

(III) **Stay Flexible** - ability to do a quick study.

(IV) **Listen to the Holy Spirit** - Trust God-sensitized intuitions.

(V) **Keep Short Accounts** - sophistication in cutting losses. "No man, having put his hand to the plow and looking back is fit for the kingdom."

**Spirit vs. the Letter:** "Organizations lack this kind of faith, faith that they can accomplish their purposes in various ways and that they do best when they focus on direction and vision letting transient forms emerge and disappear." (p.16) Kingdom treasure new and old.(Matt.13:52)

If organizations are machines, control makes sense. If organizations are process structures, seeking to impose control through permanent structure is suicide. (p.23) In life, the issue is not control, but dynamic connectedness. "Except the Lord build the house they labor in vain that build it; except the Lord keep the city the watchman wakes in vain". "Trust in the Lord ... lean not..." The concept of "allowing" - trusting appropriate forms can emerge - ceases to be scary."

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