The Organic Shift

Chapter-by-Chapter Outline

PART 1: Worldviews in Revolution

CHAPTER 1: How Paradigms Shift

25 pages, 1 chart

> *"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."*
> - Margaret Mead

It all starts with something that doesn't quite fit. A contradictory fact that just won't go away. It doesn't have to be a big thing, it can be a little annoying fact in the back of someone's mind. Take the fact that summer is hot and winter is cold. Geocentric astronomy failed to explain why the seasons were so different, a problem that kept bothering 16th Century astronomer Nicolas Copernicus. The world hasn't been the same since. The Copernican Revolution started as a small group of scientists and writers, whose explorations of Time, Space and Reason made possible the Industrial Revolution--and our entire democratic, scientific society. *The Organic Shift* argues that a similar scientific and social revolution, one that could transcend the great ecological and nuclear dilemmas of the present-day, is about to transform our entire society. In short, the world is being re-invented--top-to-bottom--by a second Copernican Revolution, a second Enlightenment.

Although some might scoff at transcending these seemingly intractable dilemmas, or doubt that the intellectual pursuits of science and philosophy can have a realistic impact on today's world, the author shows how scientific revolutions and Enlightenment periods have in the past turned the world on its head. He then shows, irrefutably, that we are in such a time today.

The Copernican Revolution not only established the truth of the heliocentric theory, the new power of scientists and philosophers led directly to the Enlightenment and, in turn, the Democratic and Industrial Revolutions. In short, one little anomaly in the mind of a Polish astronomer had led to a complete re-invention of the world--ending medieval thinking and replacing it with modern, scientific democracy.

Another example of a major paradigm shift was the development of Natural Law in Classical Greece. In fact, Galileo and Newton's "Century of Genius", the 16th Century, is *very similar* to what historians call "The Amazing 6th Century BCE", when Thales and Pythagoras showed to all how the world is governed by Laws of Nature and mathematics rather than mythological gods. Pythagoras, whose declaration "All Is Number" led to the measuring of the universe, is a strong parallel to Newton, whose Laws of Gravity and Mechanics made possible the quantification of Time and Space. The Century of Genius immediately leads to The Enlightenment, while the Amazing 6th Century BCE is followed by the Golden Age of Greece, an age of science, philosophy and then Democratic Revolution. Both took some 200 years to develop.

How do these tremendous changes take place? And are we in a new shift? Chapter One, "How Paradigms Shift", first gives an easy-to-understand explanation of Thomas Kuhn's theories, outlining the ideological nature of a shift and the Five Stages of Scientific Revolution. Kuhn was the first to realize that rather than being an objective debate about data, scientific revolutions are actually ideological struggles. After contradictory facts lead to the creation of a new paradigm, a centuries-long battle over worldviews begins. The old paradigm thinkers abhor the thought of giving up their entire education and life's work -- even when

Thomas Kuhn's Paradigm Shift Theory sees scientific revolutions as ideological struggles

they are confronted with evidence their paradigm is untrue. It's called paradigm resistance, a special kind of reluctance toward facing reality.

The old paradigm simply has too much invested in the old worldview to accept the new. One theologian, for example, would not even look through Galileo's telescope, for he knew it proved his revered geocentric thinking incorrect. The struggle phase ends when the old thinkers die, said Kuhn--only then does the new science become established. Then the revolution is over. "Normal science" begins again, a centuries-long, period of steady research and data collection under the new model. It's a natural pattern of development, much as a baby has to crawl and then stand before it can walk. Here is Schacker's summation of Kuhn's stages of scientific revolution, which take over 150 years to unfold:

Kuhn's Stages of a Scientific Revolution

1. **Emergence of anomalies**, Nature violates the expectations of normal science
2. **Crisis and reconsideration** of underlying paradigm by new young thinker
3. **New analogy** and the emergence of a new paradigm and system of thought
4. **Bitter struggle**, paradigm resistance from old scientists
5. **New paradigm wins** struggle, starts new normal science period when old scientists die

These five stages, however, are just the scientific part of the paradigm shift. Kuhn stopped there. The author goes further and identifies the next four stages--how the new worldview enters the social and political realm and changes all its institutions, explaining how the Copernican Revolution was followed by the Enlightenment in the 18th Century and then the political and economic Revolutions.

The Enlightenment and Revolutions, however, were not gradual changes but rather intense back-and-forth seesaws between the worldviews. There were four distinct phases, each very different from one another. Other historians have put forth the idea that there were "Three Generations" that made up the Enlightenment. Schacker's breakthrough comes in seeing the four stages as the natural phases of development of a maturing paradigm shift, and in recognizing the part of a Conservative Backlash Phase. Here are the four phases:

The Four Phases of Social Transformation

1. **Early Enlightenment** shocks old paradigm with radical ideas. *25 years*
2. **Conservative Backlash** sets back new paradigm. *15 years*
3. **Intensive Phase** ends in Flip-Point. *20 years*
4. **Transformational Phase** creates new society and institutions. *40 years*

The author shows how these stages of development are the best description of the social transformation thrust upon the 18th Century by the Copernican Revolution. The years 1700-1725 were an Early Enlightenment, when controversial new ideas were introduced to the public and widely accepted--and when the invention of the modern string orchestra and piano led to wild dance parties and libertine ways. Although a 15-year Conservative Backlash set back the new paradigm between 1725 and 1740, the Intensive Phase which followed, 1740-1760, more than made up for it--convincing a large part of the population that deep change was needed.

During this time the French philosopher Voltaire wrote a new history of the world according to the Mechanistic paradigm, a realistic history that debunked the myths supporting the royalty, nobility and church. This "New Story" of how the world came to be had an immediate impact: the destruction of the credibility of the medieval worldview and power structure. A revolutionary atmosphere thus developed in the Transformational Phase, 1760-1800, leading directly to the American, French and Industrial Revolutions.

The author then comes to the main theme of the book. By taking the long view, he sees the historical pattern of scientific revolution and Enlightenment repeating itself in the development of a new model, the Organic Worldview. It is a New Copernican Revolution--the Organic Shift. The rest of the book concentrates on how this new paradigm is duplicating Kuhn's Stages of Scientific Revolution and Schacker's Four Phases of Social Transformation. Both the Mechanistic Shift and the Organic Shift each took more than 200 years to develop through these nine distinct stages.

Since the two shifts followed very similar paths, the author has discovered many remarkable parallels in time, which he uses to prove his point. Newtonian Mechanics and Quantum Mechanics, for example, each appeared about 150 years

after the conception point of the paradigm. Given that one is the basis of Classical Physics--which made possible our modern, industrial society--and the other is the foundation of "The New Physics"--which gave us The Bomb and nuclear energy--this parallel goes a long way toward making the case for the book. The Organic Shift is an authentic scientific revolution, a major change in the underlying worldview.

Issac Newton discovered the Laws of Gravity, the foundation of Classical Mechanics

Werner Heisenberg discovered the Uncertainty Principle, the foundation of Quantum Mechanics

Every paradigm rests upon an analogy that interprets the world. Mechanists see a Clockwork Universe, a machine that can be viewed with complete objectivity. The Organic Worldview, on the other hand, uses organismic analogies, biological models based on living systems. Mechanism *vs*. Organism--by focusing on a thinker or artist's underlying analogy, the author puts the last 200 years in a whole new light. The reader is able to clearly see how the organic model guided certain historical figures and trends, how they were set apart from the rest of 19th and 20th Century science, philosophy and culture.

The author then illuminates the present with an unprecedented theory. Without realizing it, we have already experienced two full phases of the social transformation pattern. The Organic paradigm entered the mainstream of society in the 1960s--an obvious Early Enlightenment Phase--while 1980-1995 was a typical 15-year Conservative Backlash. Here Schacker clearly demonstrates that we cannot understand ourselves without a new look at history.

Some immediate questions arise. Who made up the "small group of thoughtful, concerned citizens" who eventually changed the world? Who is the Copernicus of this new scientific revolution? Who is the Newton, the Voltaire? How has it affected society? How is the social transformation changing the world today? And where is it taking us? The answers lead to a whole new understanding of our time--a new recognition of who we are and where we're headed.

CHAPTER 2: The Organic Shift

25 pages, 1 chart

Chapter Two starts off with a simple explanation of the Organic Shift as a change in underlying analogies. We think by analogy, by comparing one thing to another, more familiar thing. Whether we use a machine as an analogy or an organism, that model shapes our conscious theories and thoughts.

Examples show the difference between the two paradigms. For instance, while a Mechanist nuclear engineer knows the Earth as a "thing", part of a machine-like safety model, an Organic ecologist sees the Earth as a living organism, one that can grow sick and die. Siting nuclear power plants near cities thus falls within the Mechanist's "parameters" of probability concerning serious accidents. Yet an ecologist would never even think of creating machinery with such a devastating potential as Chernobyl. To the organic thinker, mechanists over-analyze a situation and often ignore the whole--in this case the fragile biosphere of the Earth.

Ecologists must feel like Galileo, when the opposing theologian refused to look through his telescopic eyepiece and see the moons of Jupiter. The nuclear engineers avoid the data on the obvious environmental danger and try to hoot down the other side. It's the usual paradigm resistance, the ideological struggle Kuhn so clearly outlined in *The Structure of Scientific Revolution.*

The author follows the examples with a quick overview of how the new thinking came about, tracing the conception point of the Organic analogy to the year

1781. In that year, German philosopher Immanuel Kant established an "Organic" scientific philosophy opposed to the absolutism of the Mechanists. It was the original "systems thinking". Kant pointed out that Science and Reason would never be able to say it knew everything for certain, that there would always be an unknowable whole beyond scientific measurement.

Copernicus had dissolved the medieval worldview with his realization that the Earth was not the center of the Universe. Kant blew apart the mechanistic worldview by showing that human Reason was not the center of the Universe. The machine analogy cannot explain life, consciousness, evolution nor feelings like love and hope. Over the next two centuries, Kant's organic/holistic/idealistic paradigm developed through Kuhn's stages of scientific revolution.

Those thinking with the new analogy focused on the very subjects the mechanistic model could not explain: life, evolution, consciousness and the sub-atomic world-- leading directly to the discovery of Ecology, Cultural anthropology, Jungian Psychology and the New Physics. The New Physics, in particular, specifically parallels the advent of Newton in the Copernican Revolution, a thought-provoking similarity, and a major proof of the book's argument.

The New Physics represented a leap in thought, one very different from the Classical Physics that came before it. By proving how the observer is part of some observations, the Kantian logic of the New Physics began to affect many other branches of science, especially the life and social sciences, where consideration of the whole synthesized many branches of science into elegant unified theories. *The Organic Shift* makes the history comes alive by re-creating the inner thoughts of all these new thinkers, presenting their development as an accessible human story.

Perhaps the greatest achievement of the Organic Shift was Teilhard de Chardin's discovery of the primary driving force behind evolution: *reverse entropy*. By simply reversing the known laws of entropy, which state that the universe is slowly falling apart and will someday burn out, reverse entropy explains the ever-increasing synthesis of the evolutionary process and how it creates increasingly complex forms of life and society. It allows the quantification of *the dynamics of*

change--we can actually *measure evolution.* Teilhard's reverse entropy led directly to Prigogine's "negative entropy", the basis of his Nobel Prize-winning Chaos Theory, which revealed the mathematical laws behind evolution and is now affecting many sciences simultaneously. Just as Galileo and Newton quantified Physics in the Mechanistic Shift, Teilhard and Prigogine have quantified change and evolution here in the Organic Shift.

At the same time science and philosophy were in revolution, a series of organic counter-cultures, the Romantics, Bohemians, Beats and Hippies, grew larger and larger--until a new lifestyle and a new sense of being became mainstream in the 1960s. A broader definition of equality for all--for blacks, women, gays and all people--meanwhile became the norm during the Organic shift. Finally, the movement to end the period of warring nationalist states and create a new era of world peace has begun to have a real impact around the world--although there is still a long way to go.

Chapter Two's last section deals with the crux of the book. Schacker shows how the present-day has already gone through the first two phases of social transformation, originally seen during the Enlightenment of the 18th Century. The 1960s and 1970s clearly line up with the Early Enlightenment Phase while the Reagan-Gingrich Era undeniably corresponds exactly with the 15-year Conservative Backlash Phase. This is a breakthrough theory, the first time any book has explained the Sixties and the Backlash *as part of centuries-long paradigm shift.* If this can be proven, an inescapable conclusion follows. The rate of change is now going to accelerate rapidly as the Intensive and then the Transformational Phase develop. In short, the Organic shift has precisely duplicated the Copernican Revolution and Enlightenment.

This is a major change of our society and our worldview, yet neither the media nor the public fully understands it. Paradigm shifts have a way of sneaking up on a culture. Schacker points out that it was only after 1740 that people began to realize they were living in an Age of Enlightenment--and they had been in one for 40 years. We find ourselves at a similar juncture.

According to the pattern, the mechanistic paradigm at this point has little hope of continued domination, despite its current hold on the world. Within 15 years, history tells us that the organic shift will reach a climax and sweep the old thinking aside as the Conservative Backlash is followed by the rapid change of the Intensive Phase. A new activist generation comes of age, one that thinks solely with the new paradigm. This generation turns up the "heat," acting like a pressure cooker.

New philosopher-popularizers then lead this generation, creating even more pressure--until this whole movement for change is catalyzed by a new history. Since one's view of history guides opinions about everything from politics to religion, a history based on a new paradigm changes opinions like nothing else. Society then passes through the "flip-point", replacing the old thinking with the new in a very short period of time. The world is finally ready for real change--and the political and economic revolution of the Transformational Phase.

The author presents a well-researched argument. The organic shift concept not only explains the scientific/cultural revolution of the last 200 years--it also offers the first reasonable explanation of why the Sixties and the Backlash developed. Using accepted historical fact, Schacker then offers detailed predictions of where the next century will likely take us. This is a surprisingly optimistic view of how the organic paradigm can resolve the "Mechanistic Dilemma", which is leading the world to social and environmental breakdown.

We survive, he says, by building a reinforcing network of organic solutions, from a new educational curriculum to communitarianism, organic agriculture and a new environmentally-based politics and economics. He predicts the Organic Shift eventually merges with the Internet and other technologies to create a "conscious" global awareness. In short, we are about to undergo the greatest change the world has ever seen. And it all might never have happened if some annoying anomaly had not popped up in the back of somebody's mind, an obscure intellectual paradox that refused to go away...

PART II: A Short History of the Organic Paradigm

CHAPTER 3: The Kantian Revolution

25 pages, 1 diagram

> " ... all our intuition is nothing but the representation of appearance... As appearances, they cannot exist in themselves, but only in us. What objects may be in themselves, and apart from all this receptivity of our sensibility, remains completely unknown to us."
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> -- (Immanuel Kant, CPR KS trans. A42/B59)

Immanuel Kant had a desire for order. Maybe it was his Pietist upbringing, maybe he was obsessive-compulsive--or maybe it had something to do with the fact that he was a Prussian, who were always known for their precision. Whatever the reason, this German philosopher used his astounding intellect to bring order to thought and philosophy. Along the way he discovered the Organic paradigm.

"The Kantian Revolution" chapter explains how a metaphysical conundrum led a German philosopher to unravel the entire Mechanistic worldview. For decades, Immanuel Kant tried to answer one essential question: What can we know? It was a messy question, and Kant was determined to clean it up. It was the first stage of scientific revolution: the anomaly.

Immanuel Kant began the Organic shift in 1781 with his discovery of the unknowable Whole (The Noumena)

Mechanistic science assumed we can know and see everything--but Kant realized this was not so. As he thought about it, throughout the 1760s and 70s, he realized a deeper reality. He came to see a world divided between Phenomena, what we can know, and Noumena--what we cannot know. Science had finally come up against the unknowable whole, the limits of what we can safely know with our reason and instruments.

This was a whole new way to think, far beyond mere Mechanistic models. With one book, *The Critique of Pure Reason* in 1781, Kant resolved many anomalies inherent in Mechanistic science. Schacker identifies *The Critique* as the conception point of the Organic shift. The paradigm then unfolds in a 250-year pattern from 1781, duplicating in development time the nine stages of the Copernican Revolution and Enlightenment, transforming science and then society. Ecology, the New Physics, modern cultural anthropology--it is revealed how these and other new sciences were the direct result of the Kantian Revolution.

Realizing Kant's Noumena changes one's entire outlook, it is transformational. One suddenly sees many concepts as old paradigm dogma. Our personal thinking may still be limited, as we have all been imprinted with so many Mechanistic and nationalistic absolutisms. Going beyond these artificial limits is the crucial first step one must take.

Kant also wrote about the appearance of a new type of human being: *homo noumenon,* who has broken through the circle of materialism and sees the whole first. *Homo noumenon* stands in contrast to *homo phenomenon*, who think first of their job, their house, their horse and their family, then in a vague sense their neighborhood, town and nation and in almost no sense the world. This was the first description of the new global, holistic consciousness.

In his essay *Perpetual Peace*, Kant hoped that increasing numbers of *homo noumenons* would lead the future to world peace, to world government. His writings on the subject were so influential they eventually became part of the preamble of the charters for The League of Nations and later the United Nations.

Kant knew his philosophy would change the world. The German philosopher in fact believed that he was the new Copernicus--and said so many times. Like Copernicus, Kant pointed out that he had gone beyond the mere appearance of the world and realized a new reality. Similarly, anomalies that did not fit into the old thinking led to a whole new analogy. He showed how the Mechanistic paradigm had no place for the unknowable, nor could the analogy of the Machine adequately explain life, evolution, feelings or consciousness. A machine cannot evolve, or create a culture--or love. Kant transcended the limits, showing how to think in terms of wholes, how to *synthesize* as well as *analyze*.

In so doing, he opened the way for scientists, philosophers and artists to view the world from an entirely new and lofty vantage point. It was the birth of modern "organic" thought.

CHAPTER 4: Early "Organic" Thinkers 1790 - 1850

25 pages

The new way to think led to a different lifestyle, one connected intimately to nature and the unknowable, mystical whole. A new sense of being came about, as civilization and mechanistic science were critiqued from a broader perspective. Like the new lifestyle of humanist/scientists and artists in the later 16th and in the 17th Century--which shocked their medieval peers--this new "organic" lifestyle was a major part of the organic shift. A much broader inner life began to express itself.

Chapter Four tells the wonderful story of the organic pioneers, who rebelled against "The Machine", mystically finding themselves in the contemplation of Nature

William Blake said art will awaken the "slumberous mass" of humanity

and the unknowable whole. There is William Blake, the early Romantic mystic who saw humanity as an unconscious giant--put to sleep by the invention of the wheel and a great spell of materialism thousands of years ago. Only the arts can awaken this "slumberous mass" declared Blake.

Once the giant is awake, however, he will sweep away the evil thoughts which have taken over the world and start a new Golden Age. London would see the Sun again as the black smoke of the factories and chimneys will be banned. Blake sang out for that "Glad Day" to come quickly.

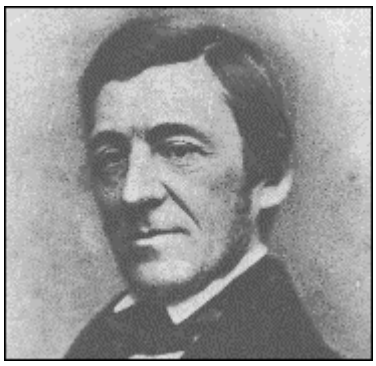
Awake! Awake! O Sleeper of the Land of Shadows!
Expand! I am in you. And you are in me! Lo! We are one!

This new role, to awaken the sleeping giant of humanity, became the guiding principle of progressive artists everywhere. It was all very different from the old task of art: to reflect the glory of God and mankind. The spirit of Blake's mythology became an underlying foundation for all the subsequent counter-cultures of the Organic shift--the Romantics, the Bohemians, the Beats and finally the Hippies. In all of these movements the value of shock and newness, which help awaken humanity from its collective dream, were appreciated more and more as time went on. An unbridled artistic freedom became possible--all part of the new Organic thinking, the new way of being. Just as the Copernican Revolution and the simultaneous Reformation produced a new, more secular and free life, so the organic shift opened up a less inhibited lifestyle.

The chapter then takes a close look at the inner development of Transcendentalist Ralph Waldo Emerson, who taught us how to escape from civilization and replenish ourselves through communion with Nature. Out of Kant’s

revelations about the Noumena and intuition, out of the Romantic belief in vision and transcendence, and out of a fascination with Buddhism, Emerson created the Transcendental Movement of New England. It was an organic movement intended to reform the world. He urged everyone to resist the cultural status quo, to search beyond appearances for the real truth. The Transcendentalists also had a real interest in Eastern thought, displaying a reverence for the statues of Buddha they acquired from sailors and merchants.

Emerson called for individual transformation by communing with nature, with the "OverSoul". He explained that "nature is transcendental", encouraging everyone to ascend to the transcendental plane through periodic communion with nature--as he believed they would then go back and transform the world of man. In the 1830s and 40s, Transcendentalists flocked to places like Niagara Falls so that they could experience its "transformational" power. They even called these natural wonders "The Transformers." Many spread out into the world, all advocating the new thinking.



Ralph Waldo Emerson taught that we must commune with the Oversoul through Nature to transform the world of man

One Transcendentalist did indeed transform the world of man. The inner search of Henry David Thoreau is told. With *Walden Pond,* Thoreau rejected the

Henry David Thoreau gave us the concepts of modern Voluntary Simplicity and Civil Disobedience

materialism of civilization, proposing what we know today as Voluntary Simplicity. Try to live life with little impact upon the world of Nature, said Thoreau, an ecological concept diametrically opposed to the rapacious exploitation of the mechanistic technologists.

Schacker notes that Thoreau also invented another crucial aspect of the organic paradigm. When asked to pay a War Tax for the invasion of Mexico in 1846, his organic pacifism led him to jail instead--and his essay on civil disobedience. Years later, those writings helped to inspire Gandhi, Martin Luther King and the Anti-Vietnam War movement.

Every paradigm is based on a broader definition of freedom and equality. In the new thinking, slavery *must* be outlawed, with blacks and women getting full and equal rights. Pacifism, feminism and abolition all became strong movements in the first half of the 19th Century. And it was inter-connected with feminists packing abolitionist meetings and vice versa.

Huge conventions featuring powerful speakers like Frederick Douglas brought many converts to the new equality and "Free Thinking". There is the remarkable story, for example, of Elizabeth Cady Stanton and the first Women's Rights convention, showing how the new definition of freedom led to a new inner life for women--and her declaration of female independence in 1848.

Elizabeth Cady Stanton electrified the women's

movement with the Declaration
of Sentiments in 1848

As the 19th Century developed, all of these early pioneers had a great impact, shaping the direction of the coming revolution in thought. It was an entirely new way to perceive the world--to see the whole first and then connect the parts. Science was about to have its consciousness expanded. Art would become Avant-Garde, trying to shock the slumbering masses into awakening. Philosophy was uplifted by a powerful neo-Kantian movement. Despite all the change in these areas, mainstream society remained unperturbed, continuing the mechanistic paradigm and bringing it to a zenith in the mid-20th Century. So a mighty struggle between the two analogies began, one seeing the universe as a machine, the other comparing everything to organisms and whole systems.

CHAPTER 5: A New Scientific/Cultural Revolution 1851-1900

25 pages

> "This is what you shall do: Love the earth and sun and the animals, despise riches, give alms to everyone that asks, stand up for the stupid and crazy, devote your income and labor to others, hate tyrants, argue not concerning God, have patience and indulgence toward the people, take off your hat to nothing known or unknown or to any man or number of men ... re-examine all you have been told at school or church or in any book, dismiss whatever insults your own soul, and your very flesh shall be a great poem."
>
> - Walt Whitman

The new paradigm flourished in the last half of the 19th Century, although it was still only a tiny percentage of the population. The Bohemian movement began in the late 1840s, an Organic counter-culture very different from that of Mechanistic *homo phenomenon.* Bohemians could be found almost everywhere in Europe, then spread to New York in the 1870s. There is an overview of Avant-Garde Art and the rising power of "The Cult of the New", describing how artists and writers deliberately used shock to wake up their audience. Schacker also notes that the first Buddhists from the East came to America toward the end of the century, causing a sensation among the Bohemians, Spiritualists and intellectuals.

Walt Whitman and his lover
Peter Doyle

The chapter then looks at the new definition of freedom, at the 75-year Suffragette movement, the prediction of Gay Liberation by Walt Whitman, the turning of slaves into free men, at the early Labor Union Movement and the anti-Philippine War movement headed by philosopher William James. All pre-cursors to the counter-cultures and social movements of our own day.

During the late 19th Century, the Organic analogy began to have a big impact on the sciences. A biologist, evolutionist, artist and Free Thinker, Ernst Haeckel, invented the science of "oecology" in 1866. Haeckel defined ecology as "the relation of the animal both to its organic as well as to its inorganic environment," combining the Greek words "oikos" and "logos", meaning *household* or *habitat* and the *Reason that brings Order to Nature*. He even argued against mechanistic anthropocentrism like a modern-day ecologist, denying that "humanity is the goal of the universe."

Haeckel was also the first to write directly about the evolution of consciousness, seeing that a "long scale of psychic development ran unbroken from the lowest, unicellular forms of life up to the mammals, and to man at their head." He openly hoped for a future science that would study the psychology and development of consciousness, an idea that later inspired Carl Jung to develop his theory of the

collective unconscious. And where Darwin declared that God created the first organism in a warm rocky pool, Haeckel was brave enough to say that life developed out of non-living matter without Divine Intervention, a difficult thing to say in his day. Although later reviled for his views on eugenics and the evolutionary superiority of the Aryan race-- which helped inspire the later Nazis--Ernst Haeckel made important contributions to the organic shift.

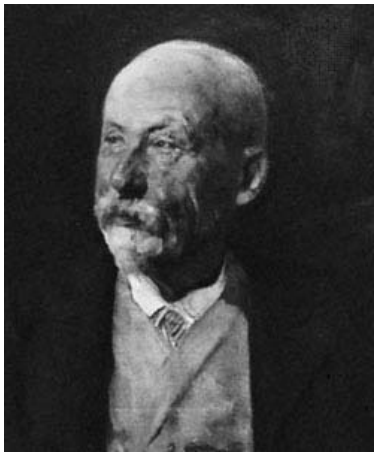
Ernst Haeckel coins the word "oecology" in 1866

The Kantian Revolution also affected other sciences. Physicists had begun to investigate a mysterious, unexplainable phenomenon: the electro-magnetic wave. The study of this invisible energy brought back the whole debate of what can be known and what cannot. James Clerk Maxwell had put forth a credible theory on the EM Wave but how could one confirm it? How do you measure the invisible? By the 1880s, Germany was experiencing a neo-Kantian movement in philosophy and science. Schacker shows how Kant's philosophy led one particular physicist on a metaphysical quest to make the Wave a tangible reality.

In 1888, Heinrich Hertz proved Maxwell's Wave Theory correct when-- without the use of any wire-- he successfully sent a signal from a transmitting device to a receiver. When a curious pupil asked whether these waves might someday have a practical use, Hertz answered: "None whatsoever. I don't see any useful purpose for this mysterious, invisible electromagnetic energy." Naturally, he could not know that others would soon take his work and invent radio and television. Nor did he see that his proof of Maxwell's Wave would lead directly to the New Physics--and the unlocking of the atom.

This neo-Kantian movement had another direct impact--this time in the social sciences. The author uncovers the inner development of one of the 19th Century's

most important thinkers. Through his study of Kant in the 1880s, the great philosopher of history Wilhelm Dilthey saw the organic whole of history and realized something new--the worldview (like Kuhn's *paradigm*). He called it the *Weltanschauung,* defining it as "a general view of the universe and the place of human beings in it, especially as this view affects conduct." Dilthey went on to make a fundamental realization about history and culture: every culture is convinced by their worldview that their own particular culture is superior, the ultimate culture of destiny.



Wilhelm Dilthey discovered the worldview in the 1880s, founding cultural anthropology

Yet the reality is, no worldview has the market on truth cornered, for every paradigm is merely one step in a long and continuing evolution of worldviews. In order to understand this, moreover, we must imagine ourselves outside of our own paradigm, we must try to attain *cultural relativity*. Such a perspective naturally leads us to question our own worldview and where it comes from. As Dilthey's teachings spread to America--in the form of Boas' cultural anthropology teachings at Columbia University--they became known in the Bohemian counter-culture, and many artists immediately made it part of their inner self. Stepping outside the old paradigm and seeing it as an obsolete worldview became a necessary first step to being a true Bohemian.

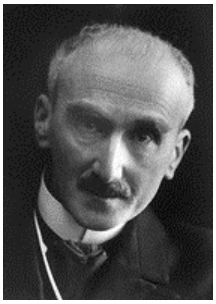
Ecology, the Evolution of Consciousness, Wave Theory and Cultural Anthropology--all would soon transform the world, and our understanding of who we really are.

CHAPTER 6: From Vitalism to Holism 1901 - 1929

25 pages

Chapter Six tells the story of the early 20th Century, covering the Bohemian apogee, when modern art enlightened New York City at the popular Armory Show of 1913. Schacker describes the Greenwich Village of that time, including the peyote ceremonies held in the apartment of Mabel Dodge, and the feminist/radical theorists of the day.

At the same time, the new science developed, challenging the credibility of Mechanistic theory. The question of what caused evolution, in particular, became a great divide between the Mechanists and the new thinkers. The answer--according to the organic analogy--could be found in the writings of Henri Bergson, whose 1907 book, *The Creative Mind,* was often found beneath the arm of Bohemian artists in Paris and New York. He speculated about the existence of an *elan vital,* a vital life force that drives creativity and evolution, disputing Darwin's concept that evolution was "the survival of the fittest". Bergson wrote eloquently about the life force, explaining how it produced greater and ever-more conscious levels of life and culture. His concept greatly aroused the ire of the Mechanists, who derided it as pure poppycock. Schacker shows why he developed his theories.



In 1907, Henri Bergson talked of a "life force" that evolved more complex organisms with greater levels of consciousness

There is a section on the first field ecologists in Britain, on the New Thought movement in America (an early Human Potential trend), and a large section on the important contributions of J.C. Smuts in his 1926 book, *Holism and Evolution.* This was the only book he ever wrote and was inspired by the two books he carried everywhere in his youth: the Holy Bible--and Kant's *Critique of Pure Reason.* Smuts said Mechanists over-specialize, focusing on some part and then declaring it to be the whole--like the parable of the Seven Blind Men and the Elephant, where one feels the tail and announces it is a rope, the next feels the side and thinks it a wall. Science

should instead study wholes, study the system and how the parts interact, said this philosopher, who also happened to be the Prime Minister of South Africa.

This realization of the Whole was about to go far beyond the realm of the metaphysical, far beyond the philosophical. The new paradigm was poised to transform the world--irrevocably. Even today, we have not yet dealt with the consequences of that great change.

CHAPTER 7: The New Physics

25 pages

The newfound ability to holistically synthesize now led science to an incredible discovery, a veritable Kantian leap. Out of the Wave Theory of Hertz and Maxwell came the New Physics, the core revolution of the organic shift. In this chapter, Schacker definitively makes his case for the book when he shows how Heisenberg (1930) followed Kant (1781) by 149 years, while Newton (1687) followed Copernicus (1543) by 144 years. *Even the development times of the two scientific revolutions are similar*. One gave us Quantum Mechanics, the other Newtonian Mechanics. Yet while Newtonian Mechanics has already transformed the world and our understanding, Quantum Mechanics and the new paradigm have theoretically just started their transformation of society.

"The New Physics" gives a short history of how the world's greatest minds came together to unlock the mystery of the sub-atomic world. In the attempt to decipher the atom, science was directly confronted with something that could never be "known"--at least in the way we know Classical Physics. The puzzle was that in some experiments, light acted as a Wave, in others as a Particle. The Holism of Smuts had pointed out that Mechanistic models have rigid barriers of separation between the various parts of a whole system, while in fact there are many areas of inter-connection. It may be impossible to tell where one part ends and another begins. Saying that something was *either* this *or* that was simply arbitrary, as reality might not follow such rigid concepts.

To assist them, Heisenberg actually called in Kantian scholars to help guide the discussion, leading him to the *both/and* solution--light is *both* a Wave *and* a Particle. Rather than the *either/or* rigidity of the Mechanists, Physics was forced to accept the holistic *both/and* reality. Heisenberg called it "The Uncertainty Principle". With it, Quantum Mechanics could decipher the sub-atomic world--and the power of the atom was unleashed. The organic analogy had led science into a direct confrontation of the Noumena.

The author's correspondence of Heisenberg and Newton and the impact of their discoveries upon the world cannot be denied. By the end of Chapter Seven, the reader sees that the Organic shift is indeed a major change in paradigms. They are then ready for the real breakthroughs of the book: the understanding of our present day--and Schacker's provocative predictions of the future.

CHAPTER 8: Thinking Globally 1930-1954

25 pages, 1 diagram

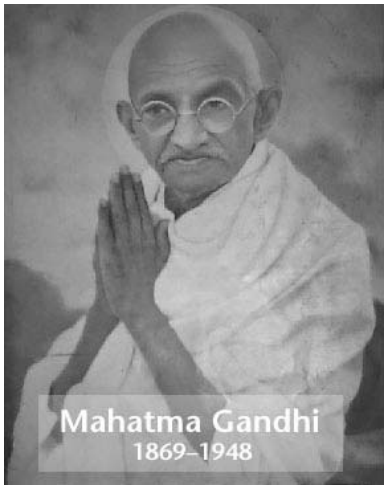
> *"Earth provides enough to satisfy every man's need, but not enough for every man's greed."*
>
> *- Mahatma Gandhi*

In the Organic Worldview, ecology, evolution and astronomy all make one thing very clear: humanity is not the center of the universe. The mechanists, on the other hand, see Nature as there for humanity to exploit to the fullest--as raw material to feed the factories making the machines. Scientists are seen as the all-powerful priesthood of this human-centered world, as infallible sages not to be questioned. Following World War I, mechanistic science, materialism and the old nationalistic politics combined as never before, controlling the world with an iron grip. Then the atom was cracked.

In 1924, Albert Einstein held up a glass of water and declared that it held enough power to blow up an entire city. Following the dropping of the bomb on Japan, Einstein warned, "The power of the atom has changed everything, save man's mode of thinking. Thus we drift toward unparalleled catastrophe." To save

ourselves, said Einstein, we had to change our entire mode of thinking. Fortunately, Hiroshima and Nagasaki were so horrific a planetary self-preservation instinct was triggered. The world was pushed toward a new anti-nationalistic politics, the frightening reality of nuclear weapons helping to inspire a new desire for peace--and the abolition of Total War.

Society now began to change rapidly, as enormous global forces came into play. Following World War II, Gandhi's non-violent campaign against British rule in India succeeded as no campaign of civil disobedience ever did before. Gandhi not only liberated the sub-continent, however, he also elevated the idea of Pacifism and world peace to new levels. He predicted that, as the world developed, communities of peaceful and enlightened beings would form—"unities" he called them. As the unities grow larger and larger, they would start joining together, working in concert. Gandhi envisioned a great planetary awakening, a coming together of all peoples. "The circle of unities will ever grow in circumference until at last it encompasses the whole world." A global era of peace and wisdom will be born. Schacker traces Gandhi's inner development, telling the dramatic story of how he came upon the new organic sense of being and altruism while in South Africa (it was Prime Minister Smuts who had him deported to India!).

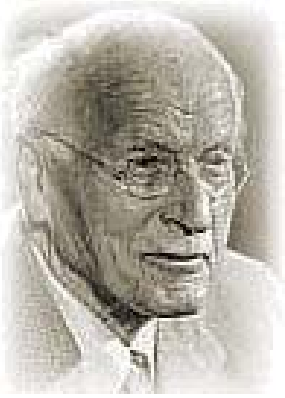


Gandhi predicted the world would eventually be united by "unities", communities of peace-seeking peoples

The end of war became a hope of all new paradigm thinkers, a goal they worked for in many different ways. In the early Fifties, anti-war sentiment grew. Liberal and counter-culture protests against the Korean War were held in front of the White House, receiving great attention in the media. In the late Fifties, teach-ins and demonstrations against the madness of nuclear weapons and the Cold War were

conducted by the SANE organization. This was all happening at the same time Martin Luther King and the Civil Rights Movement began to employ civil disobedience in their campaign for freedom and the right to vote.

The organic science of this period made enormous strides. There were, for example, the contributions of psychologist Carl Jung. He taught that mental health comes from creating and believing in a "Story" of who we are and what we want to do with our lives. Inspired by Haeckel's explanation of how consciousness evolved from the lowest forms to the mind of man, Jung spoke of the collective unconscious, a set of archetypal memories that inspire our inner Story and our feelings. It's psychology from the Organic perspective, far from the simple Mechanism of Freud and the Behaviorists.



Carl Jung discovered the collective unconscious and said mental health depends on having a personal "Story"

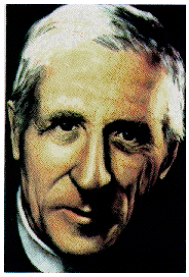
Ecology meanwhile reached the global level. Carl Ricketts' study of the Monterey Bay tide pools in the 1930s made ecology a universal science. *Our Plundered Planet* was published in 1948, explaining in detail the depletion of natural resources. The next year, 1949, Aldo Leopold published *Sand County Almanac,* pointing out that the whole millennia-old anthropocentric worldview was essentially to blame, that modern technologists think man to be the all-powerful center of the universe.

The ecologist Aldo Leopold taught that the anthropocentric worldview must be replaced by one that respects Nature

The chapter next shows how a very small organic agriculture movement began. Just as scientific agriculture was part of the Mechanistic Shift in the 17th and 18th Centuries, so a new science of farming arose in the Organic Shift. Scott and Helen Nearing and lesser-known farmers were pioneers, showing the world how chemical pesticides and fertilizers were no longer needed, how the farmer could be re-connected to the earth.

In 1940, *Look to the Land* was the first book to propose a modern return to Organic Agriculture. Primarily through the efforts of Robert Rodale and his family, and then the Rodale Institute, Organic or Regenerative Agriculture became a science in the 1950s and 1960s. The section gives a quick overview of this world-wide movement.

Another global thinker was the Jesuit priest and paleontologist Pierre Teilhard de Chardin, a veritable fount of Organic foresight. In contrast to the Entropy of the physical universe, Teilhard explains that life is driven to evolve ever more complex and conscious forms through "Reverse Entropy." Rather than falling apart, the realm of life is always synthesizing itself and leaping ahead--to new levels of being.



In the 1940s, Pierre Teilhard de Chardin showed how evolution was best explained by the concept of Reverse Entropy, the most important advance of the Organic shift

Reverse Entropy--which can be measured--is a far better description of the driving force behind evolution, making scientific what Bergson mystically called the *elan vital*. In the Organic paradigm, this realization is an even greater discovery than anything the New Physics or Einstein could reveal. To new thinkers, Reverse Entropy is the most important scientific theory of the entire 20th Century. Schacker shows how Teilhard's genius led to the re-invention of our universe.

> In the downward direction of entropy, we find that matter becomes diffused and energy is neutralized. This is something we have long known. But

> why should we not take into account *the cosmic movement in the reverse sense*, towards the higher forms of synthesis .... Beneath our eyes, extending from the electron to Man by way of the proteins, viruses, bacteria, protozoa and metazoa, a long chain of composites is forming and unfolding, eventually attaining an astronomical degree of complexity and arrangement.
>
> - TDC, 1942, Future of Man, 91 [emphasis added]

Teilhard de Chardin saw this synthesis of evolution as *convergent*. When enough convergence takes place, organisms suddenly acquire consciousness. The consciousness of human beings is at another level, where a greater convergence allows reflection upon one's self as an individual. As he gazed upon a world being brought together by transportation, computers and communication, Teilhard realized that a great global convergence of information and technology was underway, one that would similarly bestow collective reflection upon the planet, a collective consciousness.

He essentially predicted the Internet in 1947, yet he envisioned it as part of the hard-wiring of the global mind, which he called the Noosphere--the collective atmosphere of thought. The Noosphere will be directly linked by computers, each person and their computer acting as though it were a neuron in a global brain. This wiring of the planet would be "nothing less than the manifestation of a particular kind of super-Brain." We will be compressed by this convergence, drawn so close together that the critical mass of global awareness is ignited. He asked, "Is this not like some great body which is being born - with its limbs, its nervous system, its perceptive organs, its memory?"

> "Let us take a rapid glance at the structure and functioning of what might be called the 'cerebroid' organ of the Noosphere...I am thinking, of course, in the first place of the extraordinary network of radio and television communications which... already link us all in a sort of 'etherized' universal consciousness. But I am also thinking of the insidious growth of those astonishing electronic computers which...enhance the essential (and too little noted) factor of 'speed of thought'...As in the case of all organisms preceding it, but on an immense scale, humanity is in the process of 'cerebralising' itself."
>
> - Teilhard de Chardin, 1947, FOM 173-4, 180

In the 21st Century, Teilhard predicts we will go through "The Cone of Time", the point at which the Noosphere actually becomes conscious of itself and reflects on its own being. There will then be a new global purpose, a new ability to act in a collective manner--somewhat like Gandhi's convergence of the unities. Teilhard envisioned a tremendous raising of consciousness, an era of peace and wisdom.

"Thinking Globally" ends with a look at the Beat movement of the 1950s, the next step after the Bohemian counter-culture--and the precursors of the Hippies. The Beats deliberately defied convention in the most conformist of decades, always using the Organic analogy to expose the structural anomalies of the Mechanistic world, what Schacker calls the Mechanistic Dilemma. Allan Ginsburg's poetry, Gary Snyder's poems on Nature and ecology, abstract art and jazz--all reflected the new consciousness, as Beat culture helped set the stage for a whole new cycle of events. The Four Phases of Social Transformation were about to begin.

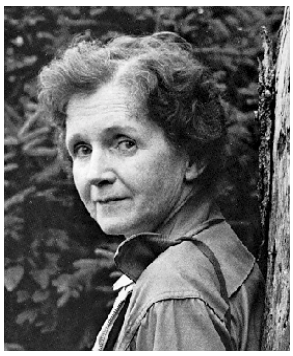
CHAPTER 9: The "Early Enlightenment" of the The Sixties and Seventies 1955 - 1979

25 pages

In this chapter, *The Organic Shift* becomes the first book to place the Sixties in its full historical context, as an Early Enlightenment Phase comparable to the first part of the 18th Century. During the years 1700-1725, the radical new ideas of Mechanistic science and democracy shook up a European society that was still basically Medieval yet--like the 1960s--there was no deep change. Nevertheless, in both eras the social transformation pattern had begun. Schacker reveals the remarkable parallels, making this most significant period of our recent past comprehensible for the first time.

The calm world of the 1950s was punctured three times, once by Elvis Presley in 1955 and again in 1957 by Martin Luther King and the anti-nuclear SANE

movement. Everyone knew a new era had begun. The old paradigm was on its guard, ready to defend the Mechanistic mindset to the end. JFK's election and the 1963 Civil Rights March on Washington confirmed it--great change was in the air. The new Organic definition of freedom and equality for all--even for the birds and the trees--was a direct challenge opposing the old ways. The chapter covers Rachel Carson, Betty Freidan, the Free Speech Movement, the Anti-Vietnam War Movement, the Summer of Love and Woodstock, and how the first Earth Day in 1970 came about.



In 1962, Rachel Carson's "Silent Spring" shocked the world, creating modern environmental awareness

The Beats were the vanguard of the new counter-culture--but they had been a tiny minority. Now the Organic Worldview entered the mainstream culture. In 1966, the Organic shift became a mass movement in the form of the Hippies. A majority of the largest generation in history, the Baby Boomers, had gone Organic. The "Generation Gap" appeared, a huge chasm between paradigms. The older generation thought with the mechanistic analogy, the younger with the organic. Schacker traces the rise and fall of the Hippies, revealing the inner story.

Television connected the world and brought the Vietnam War and the Civil Rights Movement into everyone's living room, causing a the new generation to reflect upon the state of the world--just as Teilhard had predicted. Yet Schacker shows how the Hippie movement lacked true substance, making up for it by resorting to outlandish mystical mythologies. Although it was a time of protest, exciting dance music and shocking new ideas, there was thus little change in the world's institutions, a period very similar to the Early Enlightenment Phase of the 18th Century. Despite conservative political scandals such as Watergate, institutional change would have to wait in both eras, as the new social movements devolved into a series of insubstantial fads and fashions.

Organic science meanwhile made great advances. In 1970, Lovelock and Margolis put forth the Gaia Hypothesis. By showing how the atmosphere operated through a host of micro-organisms interacting with gases and heat, the two Organic scientists proved that the Earth *is* alive. The biosphere could be made sick--and could die. To make their point, they even gave the biosphere the name of the Greek Earth Goddess: *Gaia* (pronounced gay-ya). All of their work is based on the principle that life is "negative entropy", what Teilhard called reverse entropy. Today, when life is looked for on Mars, the robotic explorers conduct Lovelock's test for negative entropy.

Ilya Prigogine, who won the 1977 Nobel Prize, next used negative entropy as the cornerstone for his Chaos Theory, which mathematically shows how Order (life) evolved out of the original Chaos of early Earth. Prigogine turned the Entropy charts of Physics on their head, showing how Life, Evolution and Human Culture self-organizes itself. Rather than a Clockwork Universe, it is a "Self-Organizing Universe". Between Chaos Theory and Systems Thinking, the new paradigm began to have a huge impact on the main branches of science and technology.

Ilya Prigogine won the Nobel Prize in 1977 for his Chaos Theory, explaining the evolution of life through "Negative Entropy"

So society had entered the century-long pattern of transformation from the Mechanistic to the Organic Worldview. Yet all that change, all that irresistible force, was about to meet the immovable object--the still-powerful institutions and traditions of the old paradigm. The empire struck back.

CHAPTER 10: The Conservative Backlash 1980 - 1995

25 pages

Schacker's matching up of the two distinctive Conservative Backlash periods tells us exactly where we are in the Social Transformation pattern. Just as the Early Enlightenment of 1700-1725 was followed by a severe fundamentalist religious backlash, the challenge of the Sixties and Seventies gave rise to a powerful counter-reaction from 1980 to 1995. The conservative Tax Revolt of Proposition 13 and the election of Margaret Thatcher in England, both in 1978, signaled the beginning of the modern Backlash. In 1980, the rise of the Moral Majority and the election of Ronald Reagan cemented its hold on the world.

There are many interesting parallels between the Backlash of 1700-1725 and 1980-1995. Fundamentalist religious revivals were popular in both 15-year eras, as were reactionary politics. The conservative revolutions then started a slow decline. In the 18th Century Backlash, the revival preachers began to call each other Satan--which repeated itself in the mid-1980s with the Jimmy Swaggart and Jim Bakker TV Preacher Scandals. In 1995, the government shutdown, seemingly caused by the conservative Republicans, finally started the middle to turn away once more from the Far Right, which has been in a weakened position ever since. Both counter-reactions thus burned hot for 15 years and then slowly declined. Today the Conservative Backlash still controls the U.S. Congress, yet many political observers agree that, having no real agenda, it has lost its way.

In the mid-1980s, fundamentalist TV Preacher scandals signaled the beginning of the end of the modern Conservative Backlash. Jimmy Swaggart confessing his sins, after being caught with a prostitute.

What happens next is perhaps the most interesting part of the whole paradigm shift, the Intensive Phase--where new forces suddenly change the dynamics and bring society to the "flip-point". It is here that deep change begins, where all the anomalies of the Mechanistic Dilemma are confronted, and where the new paradigm finds its voice.

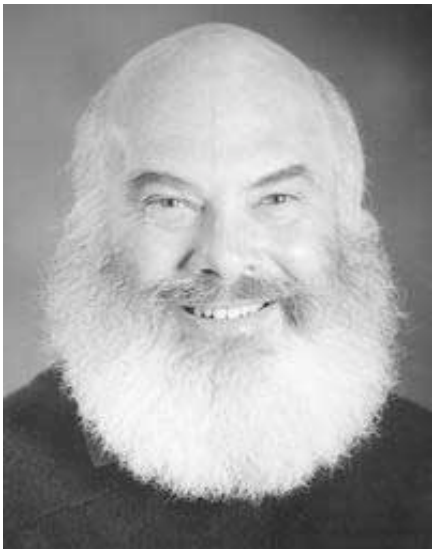
PART III: Where Are We Headed?

CHAPTER 11: The Intensive Phase 1996 - 2015

25 pages, 1 chart

So far we have lived through only 5 years of the Intensive Phase, and it seems to be living up to its name. Thanks to the advent of the commercial Internet, few would dispute that during these last 5 years we have seen the fastest change in the history of the world. The final connecting-up of the global network of computers is having a synergetic, ever-multiplying impact on the world, unlike anything we have ever seen--just as Teilhard de Chardin predicted over 50 years ago.

Yet the Internet is just the beginning. If Intensive Phase trends continue to unfold, we will soon be overwhelmed by a wave of reform and change--also unlike



Dr. Andrew Weil is one of the first of a coming wave of Organic philosophers

anything we have ever seen. We have already experienced the influence of new, Organic philosophers like Deepak Chopra and Andrew Weil and the waning of the Backlash. There are new trends for democracy, such as toleration of gays and the leveling effect of the Internet--where one person can capture more people on their web site than a large corporation.

In this new period (1996-2015), every facet of society will be re-examined. During the Backlash, it seemed the new paradigm could not find "traction" for new ideas. That all changes in the Intensive Phase. Schacker tells what to look for in the near future:

- Intensified struggle between the culture and ever-larger counter-culture. Progressives gain political power, while the issue of growth vs. Organic quality of life radicalizes suburbs and many rural areas. Environmental awareness, perhaps the greatest change in history, grows rapidly.
- In a parallel to the "philosophes" of the 18th Century Enlightenment, there will be dozens of highly influential Organic philosophers and thinkers on the level of Chopra and Weil, all with their own books, web sites and video seminars. They agree on a common agenda of change.
- The Millennials, a new activist generation of super-environmentalists who challenge the world to wake up. Generation X's cynicism becomes passé. The Millennials, born in the Eighties and Nineties--and the children of the Baby Boomers--recapitulate the consciousness-raising of the Sixties on a whole new level. The WTO demonstrations and the Million Mom March are evidence of the new Intensive Phase activism.
- The erasure of the arbitrary line between Science and Spirit as the new paradigm is applied to history and society in general. The Mechanists drew the line--the Organics erase it. This new history changes the future by providing a "New Story" of Who We Are, How We Got Here and Where We Are Going.
- Transformational novels, films, musicals, documentaries, media of all kinds. The Web goes transformational. As the Noosphere is hard-wired and awakens, the Web becomes a global *salon*. Like the *salons* of 18th Century Paris, it will be where you can meet the philosophers, converse and attain enlightenment through Virtual Reality simulations.

- The mass media becomes aware of the Organic shift and begins seeing it everywhere. Organic products go mainstream far more than today.

At the end of all this change comes the flip-point, a period of a few short years when a large part of the decision-makers and the population swing over to the Organic Worldview. The final catalyst, if the pattern continues, would be the appearance of a new history, a new story of who we are, how we got here--and where we're going. During the Intensive Phase of the 18th Century Enlightenment, Voltaire wrote such a "New Story" for the Mechanistic paradigm, a new history of the world that radicalized Europe and the Americas within a few short years, between 1755 and 1760.

So if there is a new activist generation, and if there is a wave of new philosophers and writers, the introduction of an Organic view of history could catalyze the flip-point of the whole paradigm shift, sometime between 2010 and 2015. Many decision-makers and a majority of the public would then reject the Mechanistic Worldview and refuse to even give it further lip service. A revolutionary atmosphere would soon result.

CHAPTER 12: The Transformational Phase 2016 - 2055

25 pages

If the flip-point is passed and the Transformational Phase begins, collective potentials that were impossible in Mechanistic Society become the center of Organic Society. Their emergence will be astounding--and galvanizing. These new ways of acting together will change the very way we relate to each other every single day. One change will be the agreement of a large part of the population on a common organic agenda--call it the Network of Change.

The Network of Change will be an interlocking system of practical organic solutions that can be implemented in profitable ways, creating a powerful synergy for real change (see chart). It shows how economics, ecology, holistic education,

renewable energy, transformational psychology, alternative health, organic agriculture, the Internet and other areas are all inter-connected. Each organic solution reinforces the impact for change of the other opportunities, until there is an irresistible force for transformation among all the world's institutions.

Even education, the institution that is always slowest to change, will be transformed by a new organic curriculum, one that implements Dilthey's study of the evolution of worldviews as the core science. The power of this organically-based learning environment will be accessed over the Internet, multiplying its potential as a change agent.

By 2055, as the great transformation develops, we would theoretically have gone through the Organic version of the Industrial and Democratic Revolutions. What changes that would bring are hard to say right now, although we can surmise from the pattern that a complete change from the old political and economic structure would be the most likely scenario.

Yet the future is more than just a better way to run the planet. It is the next great step in our evolution--and we will have the privilege of making it happen. As Teilhard de Chardin believed, computers around the world would create a social-technological synthesis, a literal hard-wiring of the Noosphere:

According to Teilhard, the convergence of technology and the awakening collective mind reach a critical mass, giving us new abilities. He compared it to the realization of the first Stone Age person who thought "I AM", a new power of reflection that soon gave us all of civilization. In the 21st Century, Teilhard predicted the Noosphere would finally *reflect* upon its *global* being and think "WE ARE". Imagine the potential that collective thought and collective action might unlock.

Beyond the re-invention of global institutions, the Transformational Phase would thus be a leap to a whole new level of global awareness. If history is any indicator, it would all happen very quickly.

By transforming the world, that initial "small group of thoughtful, concerned citizens" will have once again proved Margaret Mead right. Teilhard, too, understood

how just a few thinkers could change everything, seeing himself and the other organic pioneers as a parallel to the Copernican Revolution. Just as heliocentric astronomy and the Laws of Motion and Gravity were the core studies of the mechanistic paradigm and society, he believed that the study of the Noosphere would be the foundation of a new world. Like Schacker, Teilhard also understood how the Copernican Revolution led to The Enlightenment and Revolutions and so he, too, predicts the shift reaching its conclusion in the early 21st Century. We grow nearer to that future every day.

> What is happening in the world today is as though, four hundred years later and at a higher turn of the spiral, we found ourselves back in the intellectual position of the contemporaries of Galileo .... Following the moment when a few men began to see the world through the eyes of Copernicus all men came to see it in the same fashion .... So it requires no great gift of prophecy to affirm that, within two or three generations, the notion of the psychic in-folding of the earth upon itself [the Noosphere], in the bosom of some new 'space of complexity', will be as generally accepted and utilized by our successors as the idea of the earth's mechanical movement round the sun, in the bosom of the firmament, is accepted by ourselves.
>
> - Teilhard de Chardin, 1949, *Future of Man*, 269, 271

BACK-MATTER

How would we get from here to a sustainable, more conscious future? How can readers join that group of thoughtful, committed citizens and help change the world? Interested readers are urged to learn more. A survey form is given along with some organizations to contact, helping them match their skills and desires with the right action group. Readers will also be guided to the author's future web site, organicshift.com, which will contain many links, dialogues and an interactive Network of Change, where people from around the world can plug in their own organic solutions. An e-mail newsletter will further connect this new community.

SUMMARY

The Organic Shift changes the way we look at the past and the present, as well as the future. It is a new story of who we are, how we got here and where we're going. By showing--in an accessible style--how the organic shift has duplicated the familiar pattern of scientific revolution and Enlightenment, the book has the potential of being a seminal work and a popular seller at the same time. The author presents a powerful set of credible historical parallels, along with a persuasive argument based on accepted facts--a level of substance well beyond the usual inner search for "the truth".

Readers go through several leaps in understanding. Realizing Kant's Noumena, they take the first step and question the absolutisms of the Mechanistic paradigm. They comprehend the meaning of ecology, knowing that humanity is not the center of the universe; and of evolution, that rather than a static world, we live in a universe constantly being born. The reader also begins to think globally, having learned of Teilhard de Chardin's predictions of an awakened collective consciousness.

Finally, through the comparison of the Enlightenment pattern with the change of the Sixties through the Nineties, they see their own place in history--and where the Intensive Phase and the Network of Change could soon take us. Transformed and

energized by *The Organic Shift,* readers will tell family and friends about the book--so they, too, can see the world anew.