# The Field: The Quest for the Secret Force of the Universe Study Guide

## The Field: The Quest for the Secret Force of the Universe by Lynne McTaggart

BOOKRAGS

# Contents

# Plot Summary

Science has recently suspended disbelief and is open to the possibility that there may be such a thing as a life force. "The Field—The Quest for the Secret Force of the Universe" by Lynne McTaggart, is the account of the many physicists and other scientists who have worked for years to find that force and to fully understand man's impact on the universe and the untapped possibilities that exist in it for mankind. Scientists, including luminaries like Newton and Einstein, once thought that there was nothing, empty space, between the visible objects in the skies. The scientists whose work is chronicled in "The Field" dissent—their research and experiments have led them to believe that that nothingness, that field, is perhaps the most important element in space—one that can unlock the mystery of human consciousness and indeed life and death itself.

The Zero Point Field contains the invisible power of subatomic quantum particles. The Zero Point Field is so named because it is thought by scientists at the time to be the one region where there is absolutely no vitality nor energy. However, in more current times, that theory has been abandoned in favor of new findings, in particular the discovery of a sea of dynamic, low frequency quantum particles that reside in what was once considered that great "nothingness."

Research done by the physicists and researchers in this account point to the possibility that the Zero Point Field is unaffected by time or space and is the repository for everything that has ever taken place and everything that has been part of the universe. There is the potential that "blueprints" exist for every living creature that ever roamed the earth. The vast data that exists in The Field can be tapped by making a connection through the quantum waves that it emits. Man can make this connection by remote intention—the brain tuning into a frequency and receiving information via a quantum frequency wave. While the universe is chaotic and dynamic, The Field can be brought to order and quantum coherence by relationship. This essential order lends itself to the logical transference of data through its emissions.

The many years of work of the many scientists that have led down the path to the still evolving theories surrounding The Field are described in great detail in this book. The book begins with Astronaut Ed Mitchell returning from a trip to the moon. While his colleagues sleep, Mitchell, who is also an astrophysicist, is taking part in an ESP experiment—relaying messages through mental images to his colleague Dr. Rhine on earth. Mitchell is intrigued by the power of human consciousness and the potential it has to benefit mankind. As he flies silently back to earth, Mitchell feels he and the earth and the universe are all one.

Other physicists and scientists address the issue of human consciousness and man's connection to the universe in a myriad of ways. They explore the impact and powers of TM (Transcendental Meditation); biofeedback; biophoton emissions; quantum coherence; communication through quantum frequency emissions; clairvoyance; remote intention; collective intention and consciousness; and, many other concepts and

approaches. However, although the scientists may have begun their travels down different paths, their work and research leads them all to the vast potential and possibilities that lie within the Zero Point Field.

# Chapter One, Light in the Darkness

## Chapter One, Light in the Darkness Summary and Analysis

Astronaut Ed Mitchell is returning home from the moon with a cache of moon rocks and soil. On their two day trip home from the moon, Mitchell has an overwhelming sense of connection with the universe that transcends time and space. Commander Alan Shepard and fellow astronaut Stu Roosa, do not seem to have the same experiences as they go about business as usual. Mitchell, at 41, is one of NASA's senior astronauts. His education at MIT as a PhD in astrophysics and credentials as a test pilot make him a standout among his peers. Mitchell has been working with Dr. Joseph Rhine, a biologist who conducts tests in extrasensory perception. After the other two astronauts are asleep, Mitchell concentrates on transmitting his choices of Dr. Rhine's symbols—square, circle, cross, star and parallel wavy lines—to his colleagues on earth. He goes through the same process the next night. These ESP tests are successful.

Over the course of the next three years, Mitchell leaves NASA. He engages in an "inner" space exploration that make his journey to the moon pale in comparison. Mitchell dissents from modern, accepted physics law that is still mired down in the classic Newtonian concept that matter and energy are distinct bodies moving predictably in space. He finds fault with the Cartesian view of the body as a separate entity from the soul and mind. These accepted principles do not come near in explaining the true nature of man.

Mitchell had the advantage of learning at MIT that many of Newton's theories are being replaced by messier and indeterminate quantum theories which suggest that the universe and how it works is not as cut and dried as many scientists prefer to think. Subatomic particles, or quantum particles, are unpredictable and omnipresent and constantly vibrating. Although scientists can predict with some degree of accuracy the likely location of an electron, they cannot be certain. Cause and effect analyses do not stand up at the subatomic level. Seemingly stable atoms may suddenly and inexplicitly erupt. The universe, as Mitchell, sees it, is dynamic and offers infinite possibility.

Quantum physics supports the universal connectedness of the inanimate—but not of living beings. A strange property is discovered in the subatomic world called "nonlocality,"—once a particle has connected with another, it maintains influence over it even at a great distance. The discovery of nonlocality destroys a foundation of physics—matter can no longer be considered separate. The world exists as a complex matrix of interdependent relationships that cannot be separated. Quantum physicists take heed and begin to consider the "observer" as part of the experiment; that is, the specific results of an experiment are only possible with the participation of the scientist who conducts it.

While scientists can explain why lungs breathe or hearts pump, they cannot explain away how a human "thinks"; why arms develop as arms and legs as legs even though they both have identical properties; why there is cancer. A fundamental mystery of life exists beyond scientific understanding. Perhaps the quantum theory of connectivity can be applied to humankind. The science of biology provides many answers about man, however, lacks an explanation for human consciousness. Mitchell delves into books about religion, Eastern thought and any available scrap of scientific evidence about human consciousness. He becomes totally immersed in its pursuit.

Mitchell establishes the Institute of Noetic Sciences, an organization formed to fund his research. He begins exchanging information with scientists and universities who conduct research in the field of human perception. The scientists that Mitchell aligns himself with are, like him, willing to suspend disbelief and be open to a new worldview. As the work progresses, an alternate theory of evolution, human consciousness and the dynamism of living things begins to emerge: man has influence upon the world and vice versa. The work is driving a stake in the heart of existing science.

# Chapter Two, The Sea of Light

## Chapter Two, The Sea of Light Summary and Analysis

Bill Church of the Church family that founds Church's Fried Chicken, is frustrated by the gas rationing of the early 1970s. He contacts a friend, laser physicist Hal Puthoff, asserting that there must be alternatives to fossil fuel (oil)—something besides coal, wood or nuclear power. Solar, water and wind power are not proving to be robust. Puthoff offers that there exists a giant reservoir of energy—the Zero Point Field. Quantum physics demonstrates that there is no such thing as a vacuum or nothingness in space; rather, it is a hive of activity, energy—in later times called dark matter. The Zero Point Field is so named because it is considered the vast "nothingness" between visible objects and is though to have "zero" energy. That has been proven to be a misconception.

The "uncertainty principle" developed by physicist Werner Heisenberg, theorizes that no particle ever stays completely at rest but is constantly in motion and thus creates energy. The basic substructure of the universe is a sea of quantum fields that cannot be eliminated by any known method. What was believed to be a stable, static universe is actually a sea of subatomic particles fleetingly changing their properties, giving rise to vast energy known as the Zero Point Field. Puthoff sees the ZPF as an infinite source of energy that if tapped by man could satisfy all of man's energy requirements and provide propulsion for long-distance space travel. The activity in the Zero Point Field represents a self-regenerating source of energy due to its perpetual motion.

Puthoff sets up a lab with Ken Shoulders, a brilliant lab engineer. The two begin conducting studies on the clustering of electronic charges tightly together within the Zero Point Field thereby creating force. A colleague, Bernie Haisch, who is an astrophysicist at Lockheed, leaves a voicemail message one day by friend and noted physicist Alfonso Rueda: "Oh my god, I think I've just derived F = ma." Although "force equals mass (or inertia) times acceleration" has always been accepted by physicists, it had never been proved mathematically until Rueda's assertion that he had done so. Haisch contacts Puthoff because of his known work in the Zero Point field and the three men—Haisch, Puthoff and Rueda—decide to work together. After completing his calculations, Rueda finds that an oscillator forced to accelerate through the Zero Point Field will experience resistance proportional to its speed. Further work by the trio concludes the astonishing theorem that mass is not equivalent to energy—mass is energy. Fundamentally, their work is pointing towards the concept that there is no mass—only energy.

Like all physicists, even Einstein had been unable to understand the source of gravity. If the theories about the ZPF were viable, the possibilities exist for anti-gravity space travel and the ability to control inertia. Traffic accidents would be rendered harmless—two vehicles would be able to collide at any speed without damage. If everything is connected through the ZPF, then it may be possible to tap into that energy reservoir;

however, it would require that human bodies also operate according to the laws of the quantum world.

# Chapter Three, Beings of Light

## Chapter Three, Beings of Light Summary and Analysis

In 1970, Fritz-Albert Popp, biophysicist at the University of Marburg in Germany, thinks he has found a cure for cancer and has been experimenting with the effect of ultraviolet light on lethal carcinogens. The light travels through some chemical compounds unaltered. However, when the light is sent through other compounds, it is re-emitted in an altered stage. He performs his test on some compounds known to cause cancer and others presumed not to. In every instance, the carcinogens absorb the light and change their frequencies. However, this reaction is noted only at a specific wavelength—380 nanometers. The question that faces Popp is why the carcinogens are essentially acting as light scramblers. Popp is intrigued that the natural process of "photo-repair" is successful at the same 380 nanometer wavelength. In "photo-repair" damaged cells are destroyed with UV light. The skin is then repaired by re-illuminating the cell with UV light at the same wavelength but at a lesser intensity. Popp's conclusion is that a cell within the body that blocks and alters UV light allows the spread of cancer by preventing the photo-repair process to work.

Popp's conclusion is solid save one unexplained aspect—his theory assumes that the body produces light which other cancer researchers challenge Popp to prove. He develops a device that measures the emanation of light, photon by photon, capturing even those emissions that are extremely weak. The first test is conducted on a cucumber. The light it emits is attributed to photosynthesis. To eliminate the possibility of photosynthesis, their next test is on a potato grown in the dark. The surprising result is that more light is emitted from the potato than from the cucumber.

Popp is not only astonished by the results of the potato test, he observes that the potato contains a high level of quantum order, or coherence. Coherence establishes communications so that the particles, which are connected by electromagnetic fields, act in sync and thus present themselves together—a wave of particles. If a human eats broccoli, it is metabolized into $CO_2$ and water and the individual retains the photons of light that had been produced in photosynthesis. The energy of these photons is absorbed in the body and becomes the driving force of all the molecules of the body. Popp opines that these "biophoton emissions" might provide the communication system necessary to transfer information from cell to cell. However, the question lingers, where are they stored?

Through experimentation, Popp finds that photons of light are stored in the DNA. Perhaps cells receive their instructions to assimilate into a leg or an arm through frequency emissions from the DNA. If so, what is the mechanism of feedback that enables the cells—including the important activation of proteins and genes—to act in unison? Each cell in the human body undergoes some 100,000 chemical reactions per second—how is this mind-blowing number controlled in order to act in unison? When a

"daughter" is being produced, how do certain cells know to stay dormant? Such coordination cannot be accomplished without a sophisticated level of communication.

British biologist Rupert Sheldrake hypothesizes formative causation; i.e., everything "from molecules to galaxies are shaped by morphic fields." These fields have a cumulative memory that enables them to remember how to look and behave. Morphic resonance is the "influence of like upon like through space and time. The more we learn, the easier it is for others to follow in our footsteps." (47) Sheldrake does not offer to explain the "how" part of his theory. Popp feels he may have found that answer theorizing that the DNA may transfer the information through biophoton emissions—weak emissions of photons that are able to orchestrate the organization of the body. Many scientists and researchers in the field precede Popp's work. For one, neuroanatomist Harold S. Burr measures an electrical field around a salamander that is the shape of a salamander—a blueprint of sorts. Burr finds that electrical charges change with conditions—the full moon, growth, sleep, the onset of cancer. Popp notes that the more complex an organism, the less photons it emits.

Popp begins experimenting with human subjects. He has a young, healthy woman sit in a pitch dark room to measure photon emission. He notes that the emissions follow a set pattern and that a biological rhythm is apparent. An increase in photons from the right hand is matched by the left hand. He found that a remarkable quantum coherence exists in healthy individuals but found no coherence or rhythm in subjects with cancer. The lines of internal communication are disabled in cancer sufferers. MS victims are found to retain too much light and do not attain coherence. Too much retained light disallows the cells to do their jobs—the MS patients are drowning in light.

Popp is led to believe that instead of a feedback system within the body, there is perfect communication through particle waves which transfer information. This may explain why amputees feel pain in a missing limb—the blueprint of that limb still exists in the Zero Point Field. Unfortunately, as Popp advances his theories and research findings, other scientists begin to have enmity for him. His tenure at the university is not renewed and he is let go. He is unemployed and the university only pays the salary due him after he sues them. After several years, he secures a position at a university but history repeats itself—he upsets the other scientists with his work and resigns under duress.

Eventually he finds like-minded scientists who together form the International Institute of Biophysics in Dusseldorf. Popp and his colleagues find that fleas and fish absorb light emitted from others of their species. Sunflowers face in the direction from which the most photons are available and soak them up. Popp begins to think that the emission of light has an external purpose. Perhaps these emissions explain how homing pigeons find their way, how runaway cats find their way back, how flocks of geese and schools of fish align in perfect formations. Do these photon emissions provide silent communication?

Returning to the issue of cancer, Popp begins to think that perhaps humans could introduce the healthy photons of other species to create better communication within the body and thus ameliorate the disease. Electromagnetic signaling could perhaps explain

why acupuncture works. Chinese medicine subscribes to the believe that the body has a meridian system running deep into the tissues of the human body. When punctured along these sites, qi, or life force, is able to enter the body through these adjuncts providing renewed energy, and thus a remedy, deep into the body.

# Chapter Four, the Language of the Cell

## Chapter Four, the Language of the Cell Summary and Analysis

French scientists are experimenting with a pig heart, sending the low frequency waves of chemicals that increase or decrease the heart rate. The waves produce the same result as the actual application of the chemicals. Like Popp, they learn that each molecule in the universe has a unique frequency and that the language it uses to speak to the world is a resonating wave. The French scientists are focusing on the effect of light on individual molecules. French scientist Jacques Benveniste and a team of colleagues discover that molecule properties still remain in highly diluted solvents. They theorize that when the original source is succussed (shaken vigorously) with the diluting solvent (mainly water), that information (memory) must be transmitted to the solvent. Benveniste discovers "the memory of water."

Benveniste welcomes a challenge from experts who doubt his findings. They converge upon his lab and, changing the protocol, find evidence against his claims and proclaim the high dilution experiments to be a delusion. Benevolentness reasserts his belief in his findings but is censured by his lab and rumors of fraud and mental stability begin to grow. He eventually leaves his lab and goes on to elevate his research to a new plateau: how do molecules communicate with living cells?

Most scientists still adhere to Descartes theory that molecules only react (chemically) to one another by direct contact—no reaction is possible from a distance. Benveniste dissents, claiming that Descartes' theory leaves too much to chance and takes too much time. That process cannot account for the rapid changes in the human condition like anger, joy or fear and can be likened to a key randomly searching around for a key hole that fits. He theorizes that two molecules, having their own signature frequency, resonate in the same frequency. They in turn resonate to the next molecule or group of molecules, thus launching a biological reaction. It has long been accepted by scientists that molecules emit frequencies, but prior to Popp, no one asked if there was a purpose for these emissions.

Benveniste, in later work, records the molecular signals on a computer. When he plays them back, the targeted biological system is fooled into thinking it is reacting to the molecule itself and initiates the expected biological chain reaction. He concludes, like Popp, that molecules speak to each other in oscillating frequencies and that "the Zero Point Field creates the medium in which these molecules are able to speak to each other nonlocally and virtually instantaneously," (68).

Benveniste and other scientists conclude that the presence of water is essential in frequency transmissions, it is the prime conductor of a molecule's frequency. The scientific community is slowly starting to rally behind Benveniste and Popp's findings. To his astonishment, Benveniste is able to prove that a female scientist conducting some of

these experiments with only negative results is effectively scrambling the frequencies of the molecules. This tells him that the signals go beyond neighboring molecules; rather, they travel outside the body and are listened and reacted to.

# Chapter Five, Resonating with the World

## Chapter Five, Resonating with the World Summary and Analysis

By the late 1940s, American neuropsycholgist Karl Lashley is trying to discover where the brain stores memories. To isolate where memory is stored, he destroys one region of the lab rat brain after another—still the rats retain specific memories. While these experiments fail to provide him with the answer he seeks, it does confirm his fundamental belief that the brain's function is equally potent in all regions of the cortex.

Young neurosurgeon Karl Pribram abandons his lucrative career and joins Lashley in his work. In later years, Pribram discovers the functions that the different parts of the brain control; however, he concludes that memories seem to be distributed throughout the brain. Through the work of other noted scientists in the fields of optical holography and physiology, Pribram is able to conclude that perception occurs as a result of complex reading and the transformation of information at a different level of reality. He further finds that quantum waves store images in totality and in three dimensions. Pribram theorizes that "our brain primarily talks to itself and to the rest of the body not with words or images. . .but in the language of wave interferencem" (84). What is seen is a virtual recreation of an image stored in the brain.

The team of Russell and Karen DeValois, two neurophysiologists, support Pribram's work, concluding that numerous cells in the visual system are tuned into certain frequencies. Another scientist, Fergus Cambridge, proves that movement could be represented in Fourier equations, leading Pribram to think that the brain's communication might appear in the form of waves and patterns—not just images. This concept brings him into sync with both Popp and Benveniste. That the information seems to be transmitted to many parts of the brain at once accounts for one's ability to multi-task, ride a bike or roller skate.

German mathematician Walter Schempp specializes in the field of harmonic analysis, or the frequency and phase of sound waves. By 1986, Schempp has published a book which proves mathematically how a hologram can be constructed from radio waves received in radar. Schempp is working to improve operations of the magnetic resonance imaging (MRI) medical analysis tool. Schempp partners with British physicist Peter Marcer who has developed a theory on brain wave theory but has not proven it mathematically. Ed Mitchell is present at one of Marcer's lectures and is intrigued by Marcer's words. The three scientists—Mitchel, Marcer and Schempp team up to work together. They are in agreement that perception occurs in the quantum particle. One does not see an object; rather, its quantum information is transmitted and an image is constructed. Actual perception of the world relies on tuning into the Zero Point Field.

American anesthesiologist Stuart Hameroff finds, like Popp, that living cells transmit photons and that certain regions of the brain are greatly impacted by this light. Other

scientists are picking up on Pribram's work, leaning toward the concept that the fundamental operation of the brain relies on the interaction between brain physiology and the Zero Point Field. Collaboration with Pribram, Hameroff and others leads to the conclusion that the quantum process could be tapped into via the body's microtubes and dendrite membranes by every neuron of the brain simultaneously, much like multiple users of the Internet. The information travels down these light channels in a quantum state, thus allowing the individual to make choices. Consciousness at its most fundamental is coherent light.

Mitchell asserts that the work of these scientists proves the theory that the world is an unbroken whole contained in an infinite universe of the dynamic exchange of energy. The theory begins to emerge that the brain does not store memories at all; rather, the brain is a receptor. Through frequency interaction, the brain receives stored quantum memories from the Zero Point Field.

# Chapter Six, The Creative Observer

## Chapter Six, The Creative Observer Summary and Analysis

Research physicist Helmut Schmidt becomes interested in the work on extrasensory perception conducted by J. B. Rhine, the scientist who worked with Astronaut Ed Mitchell on ESP experiments. Schmidt is intrigued by physicist Niels Bohr's Copenhagen interpretation, which argues that a neutron is not a precise entity, but rather changing and dynamic in nature—randomness is a basic aspect of nature. What appears to halt that randomness is an intruder—or observer. At the moment the intruder observes the quantum particle is the moment it is given an identity. Before and after the moment, its identity is something else.

Around the same time, Mitchell, Schmidt, Pribram and others begin to have a growing curiosity about human consciousness. The theory begins to emerge that perhaps reality only exists when the observer is interacting with the Zero Point Field. The scientists begin to wonder what impact man and his actions have on the universe. Where does the human body stop and the universe begin? If Rhine's theory of nonlocality proves out, action from a distance could impact the world at large.

Schmidt takes the ESP and psychokinesis work conducted by Rhine to a new level. For his experiments, he creates a machine is a small box with four lights above four buttons. The subjects press a button to predict which light will light next. Ultimately, Schmidt uses psychics whose scores are superior to the average person. He ponders whether the psychics see the future in their selections or are they forcing a bulb to light using psychokinesis. He creates another device that tests the subject's ability to force a result.

In the late 1970s, respected scholar and applied physicist Robert Jahn of Princeton University becomes interested in Random Number Generation as a result of a student's project. To legitimize his work and provide credibility to its results, Jahn distances himself from fringe paranormal groups and keeps his work under the radar. Fellow scientist Brenda Dunne, who studies clairvoyance at the University of Chicago, joins Jahn in his research. His analytical nature plays well against her metaphysical approach to the work. Their test subjects are ordinary people—not self-professed psychics. They are asked to will the numbers generated by the machine. After thousands of tests, the results are astonishing. Using cumulative deviation methodology, the team is able to provide mathematical evidence that ordinary people are able to use their will to substantially deviate from chance.

From their work, Jahn and Dunne begin to formulate the theory that "if reality resulted from some elaborate interaction of consciousness with its environment, then consciousness, like subatomic particles of matter, might also be based on a system of probabilities," (118). Jahn and Dunne begin testing the effect of pairs of subjects together using their will to skew results. The most profound results came from pairs of

people who were previously in a bonded relationship. Men overall had better results in the experiments while women had stronger results but often in the wrong direction. This could indicate that men have a direct impact on the world while women have a more profound one.

Established laws of physics hold that the movement in the inanimate world is always toward disorder. However, coherence of consciousness brings order to chaos. Consciousness, therefore, may help to shape and create order in the world. Some may have a more profound effect—either positive or negative—on order than others: witness the person who seems to make a clock stop or a computer malfunction.

# Chapter Seven, Sharing Dreams

## Chapter Seven, Sharing Dreams Summary and Analysis

Deep in the rain forests of the Amazon, the Achuar and Huaorai Indians share their dreams from the night before. To these tribes, dreams are a map for the rest of the day—they are more real than their waking hours. Father north in America, a doctoral student is willing the image of a painting to the sleeping psychoanalyst, Dr. William Erwin, who successfully receives the image.

Behaviorist William Braud is preoccupied with exactly where the human mind is—the quick answer, of course, is in the brain. However, if so, Braud, wonders how can thoughts or dreams influence anyone else? Braud has taught classes in memory, motivation and learning at the University of Houston. He is intrigued by the concept of biofeedback. Braud conducts ESP experiments with a hypnotized student with great success—even from great distances. Ed Mitchell recruits Braud to help him in the research he is doing for a planned book on human consciousness. They find a myriad of research on successful ESP tests. Psychologist Charles Tart finds that when two people hypnotize each other, they share the same hallucinations as well as extrasensory communication.

Braud begins to ponder how much influence the thoughts of an individual has on other living things. He successfully conducts experiments where the thoughts (will) of people in distant rooms change the direction in which small lab fish swim, speed up gerbils in their activity wheels, and protect lab red blood cells from destruction. Braud connects one test subject to a polygraph (EDA) machine and via camera has another subject "stare" at him from a remote location. The stared at subject has a physical reaction when he is stared at even though he is not verbally informed when this action takes place.

Braud addresses whether "need" allows one greater access to The Field. A group of highly nervous individuals are more effected by a remote effort to calm them than a group of subjects displaying no such nerve problem. Braud also finds that another person's remote influence on an individual can have as great an impact as the person's own biofeedback effort. This testing proves to have an astonishingly high rate of success. Braud notes that some subjects are more successful than others. He attributes their success to four factors: 1) relaxation technique; 2) reduced physical activity or sensory stimulation; 3) dreams or internal feelings; and 4) reliance on right-brain functioning.

If a "good" influence can effect others, surely a "bad" one—like voodoo—can as well. Braud learns that one can fight against such bad influences by visualizing shields against them. He also determines that an individual with the most ordered brain pattern is most successful. Braud feels that each individual is capable of creating his own

reality. The natural state of the living world appears to be order or coherence. Man has the ability to provide a super-radiance to the world. What man calls "genius" may just be an individual's greater ability to access and interact with the Zero Point Field.

# Chapter Eight, The Extended Eye

## Chapter Eight, The Extended Eye Summary and Analysis

Laser physicist Hal Puthoff is awaiting the arrival of psychic Ingo Swann. Puthoff is expecting that Swann will be exposed as a fraud once he is tested against Stanford's magnetometer. Puthoff is beginning his work on the premise that everything in the universe fundamentally has quantum properties and therefore the ability to communicate non-locally. This could be monumental, particularly if living things have the ability to receive information instantly. Cleve Backster, a polygraph expert, tests plants that respond with emotional responses when one of their leaves or the leaf of another plant is burned. Puthoff is surprised by Swann's results with the magnetometer—Swan is able to alter the output of the machine. Puthoff's assistant terms Swann's ability as "remote viewing."

While Puthoff continues to study ESP, he is visited by the CIA who asks him to carry out a few simple ESP experiments. The agency is spooked that the US could fall behind Russia which is deeply into the study and use of ESP—Russia might be able to steal US secrets. The CIA is impressed with the results of Puthoff's tests and provides funding for more research. Swann and another volunteer psychic named Pat Price are asked to describe locations from coordinates given to them by the CIA. They both independently describe terrain that contains an underground facility—a secret Pentagon operation is located near the coordinates.

The CIA, impressed with the results, provides the coordinates of a Soviet site they are concerned about. It is decided to test only Price on this experiment. Price describes a possible nuclear underground testing site. His drawings are very similar to the aerial shots the CIA has but Price goes further and describes what is going on inside the facility. A year later, much of what Price described about the interior of the facility proves to be true.

Swann volunteers to view Jupiter remotely just prior to a planned NASA flyby. In his notes, Swann draws a ring around Jupiter and is embarrassed that he mistook Jupiter for Saturn which is the planet encircled by rings. However, he is vindicated when NASA's space vehicle photographs Jupiter up close and indeed finds a ring around the giant planet. Subsequent tests of the two psychics continue to impress the scientists and the CIA. Later, ordinary people are used in some of the testing with positive results. The scientists discourage the subjects from any interpretation in their remote viewings which could lead to use of their imaginations thus tainting the results. The left brain (creative) is the enemy of The Field.

When the test subjects are seeing a particular scene, they are not transported there; rather, they are "seeing" information that had been encoded in quantum fluctuation by another and picking up that information. The ZPF is encoded with a description of

everything in the universe and is accessible to anyone who tunes in and is able to eliminate outside interference. The secret CIA program lasts 23 years before it is terminated. The Pentagon creates a similar secret program code-named Grill Flame.

# Chapter Nine, The Endless Here and Now

## Chapter Nine, The Endless Here and Now Summary and Analysis

Puthoff is most surprised by a test in which Price is able to describe a location with a swimming pool accurately, except that when he draws the scene he includes a nearby water purification plant. There is no plant on the scene; however, Puthoff learns later that there had been one 50 years before that since had been demolished. Puthoff is intrigued that his research is showing that people can see in the future and into the past. Going against Newton and Einstein, Puthoff and his team are beginning to think that there is a fundamental level of existence where there is no time or space and no cause and effect. Dunne and Jahn pair their subjects into one viewer and one traveler. With no clue where his partner is heading, the remote viewer is asked to describe his traveling partner's destination days before he arrives. The viewer is seeing into the future. Some of the tests are set up in real time while others are conducted in retrocognition—days after the partner has traveled to his destination and departed. In most cases, the descriptions of the viewers match those of the traveler.

The scientists are confronted with the question as how one can quantify and control premonitions. Experiments are done with British psychic Malcolm Bessent who, with great accuracy, is able to dream about his next day. Another consciousness researcher, Dean Radin, borrows an RNG machine from Helmut Schmidt to conduct his own experiments. Radin finds that subjects who are presented with tranquil or shocking photos react as expected. After in the test for a while, Radin notices that subjects begin to anticipate seeing a horrific photo and their body functions react as if they have already seen it—the classic "fight or flight" response.

Schmidt is entertaining the radical possibility of turning back time. He conducts many studies during the early 1970s which indicate the possibility that subjects virtually reach back in time to alter already completed results—supporting the concept that the Zero Point Field contains all space and time in the same instance. Another possible resolution to time travel effects is the Wheeler-Feynman absorber theory, whereby a wave can travel backwards in time from the future. A third explanation for time displacement is that everything in the future already exists.

Scientist Ervin Laszlo weighs in on time-travel displacement with the concept that the ZPF has its own substructure which contains scalar waves that have no direction and can travel faster than the speed of light. If consciousness—the mind—resides outside the body and is operating at the quantum frequency level, it would follow that it is also outside time and space. If proven true, this revelation could be highly beneficial to man's mental and physical health by creating the ability to return to a time before the disease or condition was beyond hope.

# Chapter Ten, The Healing Field

## Chapter Ten, The Healing Field Summary and Analysis

Puthoff, Braud and other scientists are grappling with the usefulness of man's interaction with the Field. Could man cure his or other's disease? How powerful is intention and will and how far reaching is individual consciousness? Psychiatrist Elisabeth Targ joins forces with the scientists in an effort to meld science with the miraculous. In the 1980s, Targ works with many AIDS patients whose depression is lessened as much with group therapy as with Prozac. Targ's roots are in atheist Russia where everything is "true or not true." In America, there is a third category: religion. To Targ, it seems that anything that could not be explained is attributed to God or religion.

Although skeptical, Targ agrees to work with psychologist Fred Sicher to determine whether distant healing and intention has any validity. She selects a group of terminal AIDS patients for these experiments. Targ reviews the results of past experiments in which psychic healers and people with optimistic demeanors have positive effects on plants and lab animals. Other tests indicate success through healing messages, touch and prayer.

The tests run by Targ and Sicher are double-blind—neither patient nor doctor knows who is being healed. The subjects selected are all advanced AIDS patients with the same dim prognosis. The healers are selected based on diversity. They represent Christian, Catholic, Buddhist and Jewish religions—as well as healers who have no religious affiliation or belief at all. The only requisite is that the healers all believe that what they are going to do will work. The group of 20 AIDS patients is separated into two groups of ten. Both groups continue to receive their regular medical support but one group will also receive distant healing efforts. The healers receive only photos, names and the T-Cell counts of their subjects. They do not meet them.

The healers are asked to hold an intention for the health of each subject an hour a day, six days a week for ten week periods. The healers exchange subjects so that each patient receives distant healing from each healer during the six-month test period. After testing is completed, forty percent of the control group dies but the ten who received distant healing all survive and are healthier based on their own reports and on medical evaluations. Targ and Sicher are astonished. They recheck the details of the experiment to make sure there is no disparity between the two groups. The only difference is that on average, the control group is ten years older than the healing group. The scientists arrange another experiment, this time with two groups of 20 patients, making sure there are no disparities, including in age. The second test has the same results as the first—the healing group is healthier than the control group.

Other group experiments are successful, some measuring the effect of remote religious prayer upon gravely ill patients while others track the effect of nurses as distant healers. Although diverse methods and healers are used, the results are mainly successful.

Experienced healers have a disproportionate number of successes. To the scientists, the results seem to indicate that healing is a collective force. If intention (improved order) creates health, then it follows that illness is a disturbance in the quantum fluctuations of an individual. Illness could also be the result of isolation from the collective forces of The Field and community. The intention of the healer, as well as his state of mind, seems to be as important as medication. Isolation has proven to be a contributor to ill-health. Scientists begin thinking that "consciousness" may live on after the individual dies. Some scientists and researchers feel that mediums who claim contact with the dead may have some credibility. Death may simply be a return to the Field.

# Chapter Eleven, Telegram from Gaia

## Chapter Eleven, Telegram from Gaia Summary and Analysis

The notion of a collective consciousness has been on Dean Radin's mind for many years. If, like psychologist William James asserts, the brain reflects a collective intelligence, then does it follow that the larger the number of individuals acting in unison the greater the impact? In the world of quantum physics and The Field, such unity could be referred to as group coherence.

Nelson and the team of Jahn and Dunne test group intention on several different occasions. Armed with laptops which record the REG data, audiences attending large meetings or seminars show profound reactions when there are discussions or matters which pique the interest of the majority of the attendees. It is noted at these large gatherings that when there is one common focus a group quantum "super-radiance" registers on the REG data. Nelson studies sacred rituals: were ancient people, who were sensitive to the earth, drawn to certain sites due to their energy? Visiting several Native American sacred sites tells Nelson, from the output on the REG machine, that the sites do indeed contain powerful energy sources. Nelson has the same experience when visiting sacred sites in Egypt. Eerily, one of the read-out charts from the REG machine is in the shape of a pyramid.

Next, Nelson addresses whether remote intention could be applicable to large groups, the most obvious vehicle of transference being the TV. The greatest collective reaction recorded by the REG is the day O.J. Simpson is found not guilty. Sporting events, though having large audiences, do not show deviation since the viewing audience is probably split in favor of opposing sides. Another scientist finds results beyond chance when the REG is tested against a family's claim of poltergeist activity. Other tests show results of group intention having impact on the weather. Studies using Transcendental Meditation produce results that lean toward a concept similar to the Zero Point Field.

Some 40 scientists install REG machines at different locations around the globe in an effort to record collective reactions to worldwide events. In addition to the reaction to the O.J. Simpson trial, major deviations from random chance are recorded when Princess Diana dies and when the World Trade Towers are attacked on 9/11. Could collective consciousness be responsible for downcast Germans after WWI allowing Hitler to take their country over? Could collective consciousness have had an impact on the Spanish Inquisition or the Salem Witch Hunt? Were transitional and creative achievements like the Renaissance and British pop culture tied to the power of The Field?

# Chapter Twelve, The Zero Point Age

## Chapter Twelve, The Zero Point Age Summary and Analysis

Sixty scientists from ten countries are gathered at the UK's University of Sussex in January 2001. Their challenge, no small matter, is to figure out how to fly 20 trillion miles into deep space. Most renowned among the group is sixty-year-old Dr. Hal Puthoff who had been trying to define the space between the stars for thirty years. One of the main purposes of the meeting is to find an alternative to fossil fuels which will be exhausted over the next 50 years. Not only does space flight need to be fueled but new energy must be found for transportation on earth. Possible solutions, though radical, have been pondered over the years—turning off gravity; controlling inertia; fusion and fission solutions; matter-anti-matter effects; and many more.

Even more outlandish, energy could be extracted from the great nothingness of space—the ZPF. Puthoff tells the group that in order to use the ZPF, there would be a need to "decouple from gravity, reduce inertia or generate enough energy from the vacuum to overcome both," (219). Ideas for speeding up space travel range from developing warp speed as in "Star Trek" and traveling through space in worm holes as in the movie "Contact." Any solution would take twenty years to either develop successfully or to deem a failure.

There are earthly successes from many of Puthoff's colleagues. In France, Benveniste has perfected the ability to capture, copy and transfer electromagnetic signals from cells which will benefit biology and medicine. In America, the AND corporation is working on artificial intelligence based on the works of Pribram and Schempp. Fritz Popp and his team are applying their knowledge on biophoton-emission detection in determining the freshness of food. Radin, Braud and Targ and Dunne and Jahn are still conducting tests on human intention and analyzing the mountain of data that results. Roger Nelson continues to measure collective reactions from the earth itself. Astronaut Mitchell is lecturing on his findings on human consciousness. Puthoff volunteers to test any theories that come forward about the Zero Point Field.

Many experts feel that quantum physics will one day be altered by the work done by these scientists. Concepts that have been developed by their efforts include: the existence of communication in the subatomic world; cells and DNA communicate through frequencies; the brain makes its own record of the world in frequency waves; a substructure in the universe records everything; people are part of their environment; and human consciousness has incredible healing powers. The scientists learn that the universe is in chaos and that bringing order to it is essential. Their work points toward human abilities beyond anything ever imagined. However, like any scientific innovation, much of their work has been met with skepticism. These men and women, however, know the importance of their research and work and hold to the ultimate possibility that eventually mankind will realize great benefit from it.

# Characters

## Edgar Mitchell

Ed Mitchell is an astronaut and astrophysicist. Mitchell at 41 is one of NASA's senior astronauts. His credentials as a test pilot coupled with his education at MIT (he has a PhD in astrophysics) make him a standout among his peers. As he returns from a trip to the moon, Mitchell is entranced by the oneness he feels with the universe. He is intrigued with the subject of human consciousness and has a strongly held belief that man is part, indeed, irrevocably connected to the universe. He strongly senses that discovering the mystery of man's connection with his universe will unleash untold benefits to both man and the universe in which he lives.

With his fellow astronauts asleep, Mitchell is participating in an ESP experiment with his earth-bound colleague, biologist Dr. Joseph B. Rhine. The experiment yields great success as Mitchell is able to accurately transmit through mental telepathy Dr. Rhine's famous Zener symbols—square, circle, cross, star and pair of wavy lines. After leaving NASA and retiring as an astronaut, Mitchell focuses on the exploration of inner space, in particular as it relates to human consciousness.

Mitchell does not adhere to the modern, accepted laws of physics that are pinned to the past—the classic Newtonian concept that matter and energy are distinct bodies moving predictably in space. He rejects the Cartesian view of the body as a separate entity from the soul and mind. To Mitchell, these conventional principles and accepted physics fall short in explaining the true nature of man and his impact on the universe.

At MIT, Mitchell has exposure to messier and indeterminate quantum theories that begin to challenge many of Newton's theories. These newer concepts boldly reject the clear, simplistic views of the universe that have become conventional wisdom. Mitchell remains dedicated in his quest to learn about man and his universe. He establishes the Institute of Noetic Sciences, an organization formed to fund research for human perception. In his later years, with his experience and wealth of information, he becomes a much sought out lecturer and expert on human consciousness.

## Fritz-Albert Popp

Fritz Popp is a biophysicist at the University of Marburg in Germany. Popp spends many years in the study of light photons and the impact they potentially have on human beings. In 1970, Popp feels he may have found a cure for cancer. He has been experimenting with the effect of ultraviolet light on cancer tumors.

Popp discovers that the light absorbed by non-cancer causing chemical compounds and its subsequently re-released photons are measured to be in the same strength and frequency as originally received. However, when he tests the released lights from a chemical compound known to cause cancer, the photons are altered, seemingly

scrambled by the carcinogens. Later in his work, his suspicions are confirmed when he tests subjects who are healthy and those who are cancer sufferers.

Popp opines that these "biophoton emissions" might provide the communication system necessary to transfer information from cell to cell. Through his many years of experimentation and research, Popp discovers that one's DNAs appear to be the storage chambers for light photons. Popp begins to formulate the concept that cells receive instructions via photons of light transmitted from the DNA. In this way, the cells know how to assimilate into a leg or an arm or organ.

In his later years, Popp is ultimately able to find a practical application for his work in photon emissions. He and his team are busy applying their vast knowledge in biophoton-emission detection in determining the freshness of food.

## Dr. Joseph B. Rhine

Dr. Joseph B. Rhine is a biologist who constructed many experiments on extrasensory perception. Astronaut Ed Mitchell works with Dr. Rhine on these experiments while he is in outer space.

## Rupert Sheldrake

British biologist Rupert Sheldrake hypothesizes the concept of formative causation which asserts that everything from quantum particles to galaxies are shaped by morphic fields.

## Harold S. Burr

Neuroanatomist Harold S. Burr discovers that living entities have an electrical field surrounding them that match their shape. For example, a salamander's field is in the shape of a salamander—a blueprint of sorts.

## Jacques Benveniste

French scientist Jacques Benveniste discovers that the properties of molecules remain the same even when exposed to heavy water dilution. This leads him to theorize that water is a vehicle of memory conveyance.

## Karl Pribram

Neurosurgeon Karl Pribram discovers the specific regions of the brain that control the functions of the body. He conducts many years of research on how the brain relays instructions to the various parts of the body.

## Walter Schempp

German mathematician Walter Schempp is an expert in the field of harmonic analysis which is the study of the frequency and phase of sound waves. He does much work in improving the MRI medical analysis device.

## Niels Bohr

Physicist Niels Bohr's advances the Copenhagen interpretation which argues that a neutron is not a precise entity; rather it is dynamic and appears in different identities depending on the moment the observer "catches" it.

## William Braud

Behaviorist William Braud is intrigued with where the "mind" actually resides. He conducts many experiments in hypnosis and ESP.

## Hal Puthoff

Laser physicist Hal Puthoff conducts far-ranging research on ESP. He is approached by the CIA to conduct experiments in ESP. The spy agency is concerned that Russia, who is heavily involved in the use of agents who use ESP, will steal US secrets.

# Objects/Places

## The Zero Point Field

The Zero Point Field is the vast area in space that is inbetween visible objects. It is unaffected by time or space and is the repository for everything has ever been part of the universe. It was originally named the "Zero Point Field" because it was thought to contain no (zero) energy but later it was recognized to contain a vast sea of subatomic quantum particles.

## The Moon

Astronaut Ed Mitchell experiences an uncanny but unmistakable connection to the universe as he travels back from a trip to the moon. This experience compels him to look further into the connection between man and the universe.

## Institute of Noetic Sciences

Astronaut Mitchell founds the Institute of Noetic Sciences, an organization formed to fund research in human consciousness.

## University of Marburg

The University of Marburg in Germany is the institute where biophysicist Fritz-Albert Popp conducts much of his research on biophoton emissions.

## Random Number Generation Device

Random Number Generation Device (RNG) is the device developed by physicist Robert Jahn. He and other scientists use the device to test a subject's ability to deviate from random chance when attempting to influence and change the random generation of numbers produced by the device.

## Princeton University

Respected scholar and applied physicist Robert Jahn conducts much of his research on Random Number Generation in his labs at Princeton University.

## CIA

The CIA asks physicist Hal Puthoff to conduct ESP research. The CIA was concerned that Russia was superior to the US in the use of ESP and would be in a position to steal intelligence from the US.

## Stanford University

Laser physicist Hal Puthoff conducts much of his research in Extrasensory Perception in the labs of Stanford University.

## Gaia

Gaia is another name for the earth. It is named after the Greek goddess of the earth.

## University of Sussex

In 2001, sixty scientists from ten countries gather at the University of Sussex in England. They convene to discuss how a 20 trillion mile trip into deep space could be fueled.

# Themes

## Human Consciousness and the Connection of Man to the Univers

The main theme of the book, "The Field," is the challenge facing the many featured scientists and researchers in their on-going quest to discover man's relation to his universe. "The Field" chronicles the tireless efforts of these men and women who struggle to grasp the mind-boggling possibilities that are waiting to be discovered and understood.

The science of biology provides many answers about man, however, lacks an explanation for human consciousness. Astronaut and astrophysicist Ed Mitchell is intrigued by the complex subject of human consciousness and maintains a deep involvement in the pursuit for answers and resolution throughout his life. As an astronaut returning from a journey to the moon, Mitchell is overwhelmed by the sense that he is part of the vast horizon of space that he sees outside his space ship's window.

As work progresses in understanding the human connection to the universe, an alternate theory of evolution, human consciousness and the dynamism of living things begins to emerge: each individual has influence upon the world and vice versa.

A strange property is discovered in the subatomic world called "nonlocality,"—once a particle has connected with another, it maintains influence over it even at a great distance. The world exists as a complex matrix of interdependent relationships that cannot be separated. Scientists begin to realize that man may also have an "interdependent" and unyielding relationship with the universe.

Several physicists begin to formulate the theory that perhaps reality only exists when the observer is interacting with the Zero Point Field. The scientists begin to wonder what impact man and his actions have on the universe. The question lingers: Where does the human body stop and the universe begin?

## Dedication of Scientists and Researchers

"The Field" is the story of the scores of physicists, biologists, and other scientists and researchers and the tenacious dedication they share in their quest to unlock the secrets of the universe, particularly in the area of the Zero Point Field to which the independent work of these men and women continues to lead them. Astronaut and astrophysicist Ed Mitchell is intrigued by human consciousness and how man relates to his universe. He carries that interest through his time as an astrophysicist, his years as an astronaut and his years after retirement from NASA in the pursuit of the elusive mysteries of the universe, especially as it relates to the impact on man and man's influence upon the universe.

For over thirty years, laser physicist Hal Puthoff works at replicating in his lab the tight clustering of electronic charges that creates force within the Zero Point Field. Puthoff joins with colleagues who labor for years before finally asserting the astonishing theorem that mass is not equivalent to energy—mass is energy.

Biophysicist Fritz-Albert Popp works for more than thirty years in his work with biophoton emissions in an effort to find a cure for cancer. In this life-long journey and as an unexpected event, he discovers that DNA is the location in which the body stores light. Photons, containing assimilation instructions, are then emitted in low frequencies throughout the body.

The team of applied physicist Robert Jahn and fellow scientist Brenda Dunne conduct hundreds of thousands of tests on human subjects in an attempt to determine how remote intention can alter the random generation of numbers. The painstaking analysis of these tests was a life's work on its own. However they, like all the scientists and researchers described in "The Field," are unyielding in the ethics of conducting their tests without basis or lack of thoroughness. Many of the scientists are out-lived by their challenges. However, in all cases, another scientist enthusiastically steps in to take over the passing scientist's work—the individual is not as important as the science.

## Quantum Physics and the Zero Point Field

Quantum physics asserts the universal connectedness of everything in the universe except living beings. A strange property is discovered in the subatomic world called "nonlocality,"—once a particle has connected with another, it maintains influence over it even at a great distance. The discovery of nonlocality destroys a foundation of physics—matter can no longer be considered separate. The world exists as a complex matrix of interdependent relationships that cannot be separated.

Quantum physicists takes heed and begins to consider the "observer" as part of the experiment; that is, the specific results of an experiment are only possible with the participation of the scientist who conducts it. This new world view lays the groundwork to understand the concept of the Zero Point Field, a sea of quantum particles and a repository for all things, living and inanimate, that ever existed.

Quantum physics supports this concept as it demonstrates that there is no such thing as a vacuum or nothingness in space. Rather, the ZPF, or black matter, is alive with energy. This field of energy cannot be destroyed by any method known in physics. Many scholars feel that quantum physics will one day be irretrievably altered by the Zero Point Field research done and conclusions reached by these scientists.

# Style

## Perspective

"The Field—The Quest for the Secret Force of the Universe" is written by Lynne McTaggart. McTaggart is an investigative journalist who is described as "indefatigable" by one of her critics. "The Field" is written in the third person omniscient narrative. McTaggart is not a scientist; rather, she is a seasoned journalist who has taken on controversial non-fiction subjects, such as that in her book, "The Baby Brokers: The Marketing of White Babies in America." That McTaggart has conducted meticulous background work and research on the complex subjects of quantum physics and human consciousness, is obvious. The enigmatic issues covered in the book in narrative style could require no less. She indicates in "Acknowledgments" that the book took eight years to complete.

In her research for "The Field," McTaggart becomes intrigued and enthused to understand the little-known subjects and grasp their elusive resolutions that do not seem clear nor unambiguous. In her desire to present a complete account, McTaggart scrutinizes the work of the scientists: "I began a personal quest to find out whether any scientists were doing work that suggested an alternative view of the world," (Acknowledgments, page VIII). She becomes to a degree a quasi-expert, on at least a superficial level. She attends seminars and conferences in her efforts to understand enough to accurately communicate exactly what was going on in the mysterious world of quantum physics.

McTaggart is gratified and relieved that her journey for the truth led her to a small community of stellar and dedicated scientists with top-notch credentials all striving, in their own ways, to find answers and resolution. McTaggart interviewed major scientists involved in the book and read many of their published works.

## Tone

Author Lynne McTaggart has presented her work, "The Field," in a clear and concise manner. Although the subject matter of subatomic particles, quantum coherence and biophoton emissions, to name a few, are not everyday subjects and make the average reader tremble, McTaggart presents these complex subjects in a way that is understandable at least on a fundamental level. In an effort at acheiving ease of understanding, McTaggart employs the use of rhetoric, mainly in the form of the metaphor.

The book is presented in a series of experiments that are conducted independently by dozens of top-grade physicists and scientists. Although the main message of the book—the discovery of the importance and relevance of the Zero Point Field—erstwhile thought of as the "nothingness" between visible objects—comes through in a clear and

cohesive manner, the experiments and research conducted in one chapter does not necessarily have a connection to that in the following chapter.

However, as the book nears it end, the research begins to coalesce and the reader sees that all the years of dedicated research and experiment by many scientists are all leading in the same direction: man's inalterable connection to the universe via the subtle but undeniable energy and power of the Zero Point Field.

## Structure

"The Field—The Quest for the Secret Force of the Universe" written by Lynne McTaggart, is divided into three main parts. Part I, The Resonating Universe, is comprised of five chapters. Part II, The Extended Mind, is comprised of four chapters. Part III, Tapping into the Field, has three chapters.

Following the narrative is supporting documentation in the form of meticulous and exhaustive notes which reference theories and assertions by the scientists. Following these notes is a detailed bibliography referencing the author's sources and the published works of the physicists and scientists. A complete index of subject matter follows and is the last section of the book.

In the main, each chapter succinctly describes the research and experiments of each individual scientist focused on one aspect of the complex matters at hand. The book is not necessarily structured in chronological order since some of the research is being conducted separately but simultaneously.

McTaggart sparingly uses the cliffhanger to end some chapters in an effort to maintain interest and focus through some of the heavier portions of this heavy subject. McTaggart ends the account by tying the elements of the works of the various scientists together, providing something resembling resolution for the reader.

# Quotes

"Nothing lived, but also nothing was hidden from view, and everything lacked subtlety. Every sight overwhelmed the eye with brilliant contrasts and shadows—he was seeing, in a sense, more clearly and less clearly than he ever had." (Chapter 1, p. 6)

"As the harbinger and imprinter of all wavelengths and all frequencies, the Zero Point Field is a kind of shadow of the universe for all time, a mirror image and record of everything that ever was. In a sense, the vacuum is the beginning and the end of everything in the universe." (Chapter 2, p. 26)

"Photons switch on the body's processes like a conductor launching each individual instrument into the collective sound. At different frequencies they perform different functions." (Chapter 3, p. 43)

"Salem witch hunts or McCarthy-like prosecutions will kill science. Science flourishes in freedom. . .the only way definitively to establish conflicting results is to reproduce them. It may be all that all of us are wrong in good faith—this is no crime but science as usual." (Chapter 4, p. 65)

"Our brain primarily talks to itself and to the rest of the body not with words or images, or even bits of chemical impulses, but in the language of wave interference: the language of phase, amplitude and frequency—the spectral domain. We perceive an object by resonating with it, getting in sync with it. To know the world is literally to be on its wavelength." (Chapter 5, p. 84)

"This may provide some subatomic evidence that women are better at multi-tasking than men, while men are better at concentrated focus. It may well be that in microscopic ways men have a more direct impact on their world, while women's effects are more profound." (Chapter 6, p. 119)

"The dreamer is the vessel for a borrowed thought, a collective notion, present in the microscopic vibrations in between the dreamers. The dream state is more authentic for it shows the connection in bold relief. Their waking state of isolation. . .is the impostor. (Chapter 7, p. 125)

"When remote viewers were seeing a particular scene, their minds weren't actually somehow transported to the scene. What they were seeing was the information that [the

other person] had encoded in quantum fluctuation. They were picking up information contained in The Field." (Chapter 8, p. 159)

"An information transfer via subatomic waves doesn't exist in time or space, but is somehow spread out and ever present—the past and present are blurred into one vast here and now so your brain picks up signals and images from the past or the future. Our future already exists in some nebulous state that we may begin to actualize in the present. (Chapter 9, p. 173)

"Human consciousness could act as a reminder. . .to re-establish another person's coherence. If non-local effects could be marshaled to heal someone, then a discipline like distant healing ought to work." (Chapter 10, p. 182)

"Twenty-five years after Edgar Mitchell had experienced collective consciousness viscerally, scientists were beginning to prove it in a laboratory." (Chapter 11, p. 214)

"We had far more power than we realized, to heal ourselves, our loved ones, even our communities. Each of us had the ability—and together a great collective power—to improve our lot in life. Our life, in every sense, was in our hands." (Chapter 12, p. 226)

# Topics for Discussion

What other professional identity did Astronaut Ed Mitchell have? What experiments did he carry out in conjunction with a colleague on earth while he was traveling back from a moon launch? What eerie sense did he have about himself and the universe?

Why was the Zero Point Field so named? What is the energy source that exists in the ZPF? What is the ZPF a repository for and how could man benefit from it?

What did biophysicist Fritz-Albert Popp discover about ultraviolet light in his cancer research? Popp discovered that the body stores light in what entity? How does DNA communicate instructions to cells and protein?

What experiments did the CIA ask laser physicist Puthoff to conduct? Why was the CIA concerned about Russia's knowledge of ESP?

In what ways did the scientists and researchers described in "The Field" dissent from the long-ago accepted classic physics of Newton and Einstein?

What does French scientist Jacques Benveniste discover when molecules all but disappear in highly diluted solvents consisting of mainly water? What does the term "the memory of water" discovered by Benveniste mean?

What voicemail message was left for astrophysicist Bernie Haisch by friend and noted physicist Alfonso Rueda? What were the implications of that message?