

Advanced

This topic

[View New Content](#)

[Forums](#)

[Members](#)

[Subscribe](#)

[Donate Bitcoins](#)

[The Dao Bums](#) → [The Courtyard](#) → [Daoist Discussion](#)

# The Energy Cultivator's Handbook

Started by [Infolad1](#) , Nov 30 2015 05:04 PM

Page 1 of 2 2

**NEXT**

Please log in to reply

#1

[Infolad1](#)

[Dao Bum](#)

[The Dao Bums](#)

131 posts

Gender:None Selected

Posted 30 November 2015 - 05:04 PM

Here's a multi part "Info Packet" for those pursuing energy cultivation systems,

such as mopai, Internal Alchemy, etc.

Always good to understand the science behind why a human being could potentially be able to do the things these different systems claim is possible.

Brian, with your background in applied physics, any insights you may have would be appreciated.

It's going to be a long one folks, so hold on.

With that said:

## **Part 1 of The Energy Cultivator's Handbook by Infolad1**

### **"Superconductivity**

Superconductivity is a phenomenon of exactly zero electrical resistance and expulsion of magnetic fields occurring in certain materials when cooled below a characteristic critical temperature. It was discovered by Dutch physicist Heike Kamerlingh Onnes on April 8, 1911 in Leiden. Like ferromagnetism and atomic spectral lines, superconductivity is a quantum mechanical phenomenon. It is characterized by the Meissner effect, the complete ejection of magnetic field lines from the interior of the superconductor as it transitions into the superconducting state. The occurrence of the Meissner effect indicates that superconductivity cannot be understood simply as the idealization of perfect conductivity in classical physics.

The electrical resistivity of a metallic conductor decreases gradually as temperature is lowered. In ordinary conductors, such as copper or silver, this decrease is limited by impurities and other defects. Even near absolute zero, a real sample of a normal conductor shows some resistance. In a superconductor, the resistance drops abruptly to zero when the material is cooled below its critical temperature. An electric current flowing through a loop of superconducting wire can persist indefinitely with no power source.

## **Macroscopic Quantum Phenomena**

Quantum mechanics is most often used to describe matter on the scale of molecules, atoms, or elementary particles. However, some phenomena, particularly at low temperatures, show quantum behavior on a macroscopic scale. The best-known examples of macroscopic quantum phenomena are superfluidity and superconductivity; another example is the quantum Hall effect. Since 2000 there has been extensive experimental work on quantum gases, particularly Bose–Einstein Condensates.

Between 1996 to 2003 four Nobel prizes were given for work related to macroscopic quantum phenomena. Macroscopic quantum phenomena can be observed in superfluid helium and in superconductors, but also in dilute quantum gases and in laser light. Although these media are very different, their behavior is very similar as they all show macroscopic quantum behavior.

Quantum phenomena are generally classified as macroscopic when the quantum states are occupied by a large number of particles (typically Avogadro's number) or the quantum states involved are macroscopic in size (up to km size in superconducting wires).

## **Quantum Mechanics**

Quantum mechanics (QM; also known as quantum physics, or quantum theory) is a fundamental branch of physics which deals with physical phenomena at nanoscopic scales, where the action is on the order of the Planck constant. The name derives from the observation that some physical quantities can change only in discrete amounts (Latin *quanta*), and not in a continuous (cf. *analog*) way. It departs from classical mechanics primarily at the quantum realm of atomic and subatomic length scales. Quantum mechanics provides a mathematical description of much of the dual particle-like and wave-like behavior and interactions of energy and matter. Quantum mechanics provides a substantially useful framework for many features of the modern periodic table of elements, including the behavior of atoms during chemical bonding, and has played a significant

role in the development of many modern technologies.

In advanced topics of quantum mechanics, some of these behaviors are macroscopic (see macroscopic quantum phenomena) and emerge at only extreme (i.e., very low or very high) energies or temperatures (such as in the use of superconducting magnets). In the context of quantum mechanics, the wave–particle duality of energy and matter and the uncertainty principle provide a unified view of the behavior of photons, electrons, and other atomic-scale objects.

The mathematical formulations of quantum mechanics are abstract. A mathematical function, the wave function, provides information about the probability amplitude of position, momentum, and other physical properties of a particle. Mathematical manipulations of the wave function usually involve bra–ket notation, which requires an understanding of complex numbers and linear functionals. The wavefunction formulation treats the particle as a quantum harmonic oscillator, and the mathematics is akin to that describing acoustic resonance. Many of the results of quantum mechanics are not easily visualized in terms of classical mechanics. For instance, in a quantum mechanical model, the lowest energy state of a system, the ground state, is non-zero as opposed to a more "traditional" ground state with zero kinetic energy (all particles at rest). Instead of a traditional static, unchanging zero energy state, quantum mechanics allows for far more dynamic, chaotic possibilities, according to John Wheeler.

## **Philosophical Implications of Quantum Mechanics**

Since its inception, the many counter-intuitive aspects and results of quantum mechanics have provoked strong philosophical debates and many interpretations. Even fundamental issues, such as Max Born's basic rules concerning probability amplitudes and probability distributions, took decades to be appreciated by society and many leading scientists. Richard Feynman once said, "I think I can safely say that nobody understands quantum mechanics." According to Steven Weinberg, "There is now in my opinion no entirely satisfactory interpretation of quantum mechanics."

**The Copenhagen Interpretation** - due largely to the Danish theoretical

physicist Niels Bohr - remains the quantum mechanical formalism that is currently most widely accepted amongst physicists, some 75 years after its enunciation. According to this interpretation, the probabilistic nature of quantum mechanics is not a temporary feature which will eventually be replaced by a deterministic theory, but instead must be considered a final renunciation of the classical idea of "causality." It is also believed therein that any well-defined application of the quantum mechanical formalism must always make reference to the experimental arrangement, due to the conjugate nature of evidence obtained under different experimental situations.

Albert Einstein, himself one of the founders of quantum theory, disliked this loss of determinism in measurement. Einstein held that there should be a local hidden variable theory underlying quantum mechanics and, consequently, that the present theory was incomplete. He produced a series of objections to quantum theory, the most famous of which has become known as the Einstein–Podolsky–Rosen paradox. John Bell showed that this "EPR" paradox led to experimentally testable differences between quantum mechanics and local realistic theories. Experiments have been performed confirming the accuracy of quantum mechanics, thereby demonstrating that the physical world cannot be described by any local realistic theory. The Bohr-Einstein debates provide a vibrant critique of the Copenhagen Interpretation from an epistemological point of view.

**The Everett Many-Worlds Interpretation**, formulated in 1956, holds that all the possibilities described by quantum theory simultaneously occur in a multiverse composed of mostly independent parallel universes. This is not accomplished by introducing some "new axiom" to quantum mechanics, but on the contrary, by removing the axiom of the collapse of the wave packet. All of the possible consistent states of the measured system and the measuring apparatus (including the observer) are present in a real physical - not just formally mathematical, as in other interpretations - quantum superposition. Such a superposition of consistent state combinations of different systems is called an entangled state.

While the multiverse is deterministic, we perceive non-deterministic behavior governed by probabilities, because we can only observe the universe (i.e., the consistent state contribution to the aforementioned

superposition) that we, as observers, inhabit.

Everett's interpretation is perfectly consistent with John Bell's experiments and makes them intuitively understandable. However, according to the theory of quantum decoherence, these "parallel universes" will never be accessible to us. The inaccessibility can be understood as follows: once a measurement is done, the measured system becomes entangled with both the physicist who measured it and a huge number of other particles, some of which are photons flying away at the speed of light towards the other end of the universe. In order to prove that the wave function did not collapse, one would have to bring all these particles back and measure them again, together with the system that was originally measured.

Not only is this completely impractical, but even if one could theoretically do this, it would have to destroy any evidence that the original measurement took place (including the physicist's memory). In light of these Bell tests, Cramer (1986) formulated his transactional interpretation. Relational quantum mechanics appeared in the late 1990s as the modern derivative of the Copenhagen Interpretation.

## **Energy**

In physics, energy is a property of objects which can be transferred to other objects or converted into different forms, but cannot be created or destroyed. The ability of a system to perform work is a common description. But, it is difficult to give a comprehensive definition of energy because of its many forms.[ In SI units, energy is measured in joules, the energy transferred to an object by the mechanical work of moving it 1 metre against a force of 1 newton.

All of the many forms of energy are convertible to other kinds of energy, and obey the conservation of energy. Common energy forms include the kinetic energy of a moving object, the radiant energy carried by light, the potential energy stored by an object's position in a force field,(gravitational, electric or magnetic) elastic energy stored by stretching solid objects, chemical energy released when a fuel burns, and the thermal energy due to an object's temperature.

According to mass–energy equivalence, any object that has mass when stationary, (called rest mass) also has an equivalent amount of energy whose form is called rest energy. Conversely, any additional energy above the rest energy will increase an object's mass. For example, if you had a sensitive enough scale, you could measure an increase in mass after heating an object. Our Sun transforms nuclear potential energy to other forms of energy; its total mass does not decrease due to that in itself (since it still contains the same total energy even if in different forms), but its mass does decrease when the energy escapes out to its surroundings, largely as radiant energy.

For closed systems, the first law of thermodynamics states that a system's energy is constant unless energy is transferred in or out by Work or heat, and that no energy is lost in transfer. This means that it is impossible to create or destroy energy. The second law of thermodynamics states that all systems doing work always lose some energy as waste heat. This creates a limit to the amount of energy that can do work by a heating process, a limit called the available energy. Mechanical and other forms of energy can be transformed in the other direction into thermal energy without such limitations. The total energy of a system can be calculated by adding up all forms of energy in the system. Examples of energy transfer and transformation include generating or making use of electric energy, performing chemical reactions, or lifting an object. Lifting against gravity performs work on the object and stores gravitational potential energy; if it falls, gravity does work on the object which transforms the potential energy to the kinetic energy associated with its speed.

Living organisms require available energy to stay alive, such as the energy humans get from food. Civilisation gets the energy it needs from energy resources such as fossil fuels. The processes of Earth's climate and ecosystem are driven by the radiant energy Earth receives from the sun and the geothermal energy contained within the earth. While total energy is never lost, energy conservation refers to using less available energy, which may be considered lost when it changes to a less useful form, such as waste heat.

## Matter

Before the 20th century, the term matter included ordinary matter composed of atoms and excluded other energy phenomena such as light or sound. This concept of matter may be generalized from atoms to include any objects having mass even when at rest, but this is ill-defined because an object's mass can arise from its (possibly massless) constituents' motion and interaction energies. Thus, matter does not have a universal definition, nor is it a fundamental concept in physics today. Matter is also used loosely as a general term for the substance that makes up all observable physical objects.

All the objects from everyday life that we can bump into, touch or squeeze are composed of atoms. This atomic matter is in turn made up of interacting subatomic particles—usually a nucleus of protons and neutrons, and a cloud of orbiting electrons. Typically, science considers these composite particles matter because they have both rest mass and volume. By contrast, massless particles, such as photons, are not considered matter, because they have neither rest mass nor volume. However, not all particles with rest mass have a classical volume, since fundamental particles such as quarks and leptons (sometimes equated with matter) are considered "point particles" with no effective size or volume. Nevertheless, quarks and leptons together make up "ordinary matter", and their interactions contribute to the effective volume of the composite particles that make up ordinary matter.

Matter commonly exists in four states (or phases): solid, liquid and gas, and plasma. However, advances in experimental techniques have revealed other previously theoretical phases, such as Bose–Einstein condensates and fermionic condensates. A focus on an elementary-particle view of matter also leads to new phases of matter, such as the quark–gluon plasma. For much of the history of the natural sciences people have contemplated the exact nature of matter. The idea that matter was built of discrete building blocks, the so-called particulate theory of matter, was first put forward by the Greek philosophers Leucippus (~490 BC) and Democritus (~470–380 BC).

Matter should not be confused with mass, as the two are not quite the



same in modern physics. For example, mass is a conserved quantity, which means that its value is unchanging through time, within closed systems. However, matter is not conserved in such systems, although this is not obvious in ordinary conditions on Earth, where matter is approximately conserved. Still, special relativity shows that matter may disappear by conversion into energy, even inside closed systems, and it can also be created from energy, within such systems. However, because mass (like energy) can neither be created nor destroyed, the quantity of mass and the quantity of energy remain the same during a transformation of matter (which represents a certain amount of energy) into non-material (i.e., non-matter) energy. This is also true in the reverse transformation of energy into matter.

Different fields of science use the term matter in different, and sometimes incompatible, ways. Some of these ways are based on loose historical meanings, from a time when there was no reason to distinguish mass and matter. As such, there is no single universally agreed scientific meaning of the word "matter". Scientifically, the term "mass" is well-defined, but "matter" is not. Sometimes in the field of physics "matter" is simply equated with particles that exhibit rest mass (i.e., that cannot travel at the speed of light), such as quarks and leptons. However, in both physics and chemistry, matter exhibits both wave-like and particle-like properties, the so-called wave–particle duality.

## **Battery (Electric)**

An electric battery is a device consisting of one or more electrochemical cells that convert stored chemical energy into electrical energy. Each cell contains a positive terminal, or cathode, and a negative terminal, or anode. Electrolytes allow ions to move between the electrodes and terminals, which allows current to flow out of the battery to perform work.

Primary (single-use or "disposable") batteries are used once and discarded; the electrode materials are irreversibly changed during discharge. Common examples are the alkaline battery used for flashlights and a multitude of portable devices. Secondary (rechargeable batteries) can be discharged and recharged multiple times; the original composition

of the electrodes can be restored by reverse current. Examples include the lead-acid batteries used in vehicles and lithium ion batteries used for portable electronics.

## **Battery (Electric) - Principle of Operation**

Batteries convert chemical energy directly to electrical energy. A battery consists of some number of voltaic cells. Each cell consists of two half-cells connected in series by a conductive electrolyte containing anions and cations. One half-cell includes electrolyte and the negative electrode, the electrode to which anions (negatively charged ions) migrate; the other half-cell includes electrolyte and the positive electrode to which cations (positively charged ions) migrate. Redox reactions power the battery. Cations are reduced (electrons are added) at the cathode during charging, while anions are oxidized (electrons are removed) at the anode during discharge. The electrodes do not touch each other, but are electrically connected by the electrolyte. Some cells use different electrolytes for each half-cell. A separator allows ions to flow between half-cells, but prevents mixing of the electrolytes.

Each half-cell has an electromotive force (or emf), determined by its ability to drive electric current from the interior to the exterior of the cell. The net emf of the cell is the difference between the emfs of its half-cells. Thus, if the electrodes have emfs  $\mathcal{E}_1$  and  $\mathcal{E}_2$ , then the net emf is  $\mathcal{E}_2 - \mathcal{E}_1$ ; in other words, the net emf is the difference between the reduction potentials of the half-reactions.

The electrical driving force or  $\Delta V_{\text{bat}}$  across the terminals of a cell is known as the terminal voltage (difference) and is measured in volts. The terminal voltage of a cell that is neither charging nor discharging is called the open-circuit voltage and equals the emf of the cell. Because of internal resistance, [15] the terminal voltage of a cell that is discharging is smaller in magnitude than the open-circuit voltage and the terminal voltage of a cell that is charging exceeds the open-circuit voltage.

An ideal cell has negligible internal resistance, so it would maintain a constant terminal voltage of  $\mathcal{E}$  until exhausted, then dropping to

zero. If such a cell maintained 1.5 volts and stored a charge of one coulomb then on complete discharge it would perform 1.5 joules of work. In actual cells, the internal resistance increases under discharge and the open circuit voltage also decreases under discharge. If the voltage and resistance are plotted against time, the resulting graphs typically are a curve; the shape of the curve varies according to the chemistry and internal arrangement employed.

The voltage developed across a cell's terminals depends on the energy release of the chemical reactions of its electrodes and electrolyte. Alkaline and zinc-carbon cells have different chemistries, but approximately the same emf of 1.5 volts; likewise NiCd and NiMH cells have different chemistries, but approximately the same emf of 1.2 volts. The high electrochemical potential changes in the reactions of lithium compounds give lithium cells emfs of 3 volts or more

**Excerpt from: THE DEVELOPMENT of the LIVING MATRIX CONCEPT AND IT'S SIGNIFICANCE for HEALTH AND HEALING by James L. Oschman, Ph.D.**

We begin with a story about energy. In 1941 Albert Szent-Györgyi, who had received the Nobel Prize in 1937 for the synthesis of Vitamin C, gave the Korányi Memorial Lecture in Budapest, Hungary. His talk was published in both Science (Towards a New Biochemistry?) and Nature (The Study of Energy Levels in Biochemistry) at a time when his country and all of Europe were descending into the chaos of WWII.

The remarkable insight that was the topic of his presentation was that proteins are semiconductors, rather than insulators, as had been thought previously.

Semiconductors are intermediate in conductivity between conductors, such as copper wires, and insulators, such as the coverings of electrical cables.

In essence, our bodies are composed mainly of materials that are similar in properties to the substances that make possible our modern computers, cell phones, televisions and so on.

He introduced his new ideas as follows:

"If a great number of atoms is arranged with regularity in close proximity, as for instance, in a crystal lattice, the...electrons... cease to belong to one or two atoms only, and belong to the whole system...A great number of molecules may join to form energy continua, along which energy, viz., excited electrons, may travel a certain distance."

This means that the human body contains free or mobile electrons that can move about within the fabric of the body. These electrons are energetic and can therefore transfer energy and information from place to place.

The 1941 report proved to be prophetic, although it was not recognized as such at the time. The area where these ideas have had the most impact is in nanoelectronics — the world-wide search for ways of using atoms and molecules as miniature components of electronic circuits.

SzentGyörgyi's insight is now recognized as one of the foundations of the modern molecular electronics industry.

## **Electric Eel**

The electric eel (*Electrophorus electricus*) is an electric fish, and the only species in its genus. It is capable of generating powerful electric shocks of up to 860 volts, which it uses for hunting, self-defense and communicating with fellow eels. It is an apex predator in its South American range despite living in an environment rich in predators such as humans, dogs, caimans,

jaguars, giant otters, giant snakes, and birds of prey that kill fish of similar size of the electric eel as prey. Despite its name, it is not an eel, but rather a knifefish.

## Physiology

The electric eel has three abdominal pairs of organs that produce electricity: the main organ, the Hunter's organ, and the Sach's organ. These organs make up four-fifths of its body, and are what give the electric eel the ability to generate two types of electric organ discharges: low voltage and high voltage. These organs are made of electrocytes, lined up so a current of ions can flow through them and stacked so each one adds to a potential difference. When the eel locates its prey, the brain sends a signal through the nervous system to the electrocytes. This opens the ion channels, allowing sodium to flow through, reversing the polarity momentarily. By causing a sudden difference in electric potential, it generates an electric current in a manner similar to a battery, in which stacked plates each produce an electric potential difference. In the electric eel, some 5,000 to 6,000 stacked electroplaques are capable of producing a shock at up to 600 volts and 1 ampere of current (600 watts) for a duration of two milliseconds. It would be extremely unlikely for such a shock to be deadly for an adult human, due to the very short duration of the discharge. Still, this level of current could in theory cause fatal electrocution in humans, depending on the path the current takes through the human body, and the duration of current flow.[citation needed] Heart fibrillation (reversible via a heart defibrillator) can be triggered by electric currents of 700 mA for more than 30 ms.[citation needed]

The Sach's organ is associated with electrolocation. Inside the organ are many muscle-like cells, called electrocytes. Each cell can only produce 0.15 V, though the organ can transmit a signal of nearly 10 V overall in amplitude at around 25 Hz in frequency. These signals are emitted by the main organ; the Hunter's organ can emit signals at rates of several hundred Hertz.

The electric eel is unique among the Gymnotiformes in having large electric organs capable of producing potentially-lethal discharges that allow them to

stun prey. Larger voltages have been reported, but the typical output is sufficient to stun or deter virtually any animal. Juveniles produce smaller voltages (about 100 V). They are capable of varying the intensity of the electric discharge, using lower discharges for hunting and higher intensities for stunning prey, or defending themselves. When agitated, they are capable of producing these intermittent electric shocks over a period of at least an hour without tiring.

The electric eel also possesses high-frequency-sensitive tuberous receptors, which are distributed in patches over its body. This feature is apparently useful for hunting other Gymnotiformes.

Electric eels have been used as a model in the study of bioelectrogenesis. The species is of some interest to researchers, who make use of its acetylcholinesterase and adenosine triphosphate.

### **Bionics**

Researchers at Yale University and the National Institute of Standards and Technology argue artificial cells could be built that not only replicate the electrical behavior of electric eel cells, but also improve on them. Artificial versions of the eel's electricity-generating cells could be developed as a power source for medical implants and other microscopic devices.

**Bioelectrogenesis** is the generation of electricity by living organisms, a phenomenon that belongs to the science of electrophysiology. The nerve impulse is a bioelectric event.

In biological cells, the Sodium-Potassium Exchanger maintains a voltage imbalance, or cell potential difference, between the inside of the cell and its surroundings (see also ion channel). Also called a pump, the exchanger is said to be "electrogenic", because it removes three sodium ions for every two ions of potassium it allows in. The process consumes metabolic energy in the form of ATP. Plant cells also exhibit light-induced electrogenesis. Certain types of bacteria are able to generate electric currents; these are used in microbial fuel cells and educational kits are available for students and hobbyists.

However, the term usually refers to the electricity-generating ability that is in some aquatic creatures, such as the electric eel and to a lesser extent the black ghost knifefish. Fish exhibiting such bioelectrogenesis often also possess electroreceptive abilities (which are more widespread) as part of an integrated electric system. Electrogenesis may be utilized for electrolocation, self-defense, electrocommunication and sometimes the stunning of prey.

**Piezoelectricity** /piˌeɪzouˌɪlɛkˈtrɪsɪti/ is the electric charge that accumulates in certain solid materials (such as crystals, certain ceramics, and biological matter such as bone, DNA and various proteins) in response to applied mechanical stress. The word piezoelectricity means electricity resulting from pressure. It is derived from the Greek piezo or piezein (πιέζειν), which means to squeeze or press, and electric or electron (ἤλεκτρον), which means amber, an ancient source of electric charge. Piezoelectricity was discovered in 1880 by French physicists Jacques and Pierre Curie.

(Mechanical stress like Standing gongs? )

**Pyroelectricity (from the Greek pyr, fire, and electricity)** is the ability of certain materials to generate a temporary voltage when they are heated or cooled. The change in temperature modifies the positions of the atoms slightly within the crystal structure, such that the polarization of the material changes. This polarization change gives rise to a voltage across the crystal. If the temperature stays constant at its new value, the pyroelectric voltage gradually disappears due to leakage current (the leakage can be due to electrons moving through the crystal, ions moving through the air, current leaking through a voltmeter attached across the crystal, etc.).

So these are some of the potential keys to understanding what's happening In energy cultivation systems, from a Western scientific paradigm.

This is MAJOR.

It also helps explain how these mopai masters, and other energy manipulators, could handle the energies they're working with, without turning to ash.

My theory is that the tissues, electrolytes, and fluid dynamics of the body allow it to go from a semi conductive, to eventually a superconductive state, when triggered by the Internal alchemical process, allowing various macroscopic quantum phenomena to occur.

There are 37.2 Trillion cells in the body, according to recent estimates, so It takes time to change them all.

To paraphrase Oscar Goldman, We can rebuild ourselves Into the beings we're meant to be.  
We have the technology.

More to come.

Cheers!

Edited by Infolad1, 30 November 2015 - 08:16 PM.

.

#2

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 05:30 PM

**Part 2 of The Energy Cultivator's Handbook by Infolad1**

So how would someone defy gravity through cultivation practices?



**"Magnetic levitation**, maglev, or magnetic suspension is a method by which an object is suspended with no support other than magnetic fields. Magnetic force is used to counteract the effects of the gravitational and any other accelerations.

The two primary issues involved in magnetic levitation are lifting force: providing an upward force sufficient to counteract gravity, and stability: ensuring that the system does not spontaneously slide or flip into a configuration where the lift is neutralized.

Magnetic levitation is used for maglev trains, contactless melting, magnetic bearings and for product display purposes.

## Lift

A superconductor levitating a permanent magnet

Magnetic materials and systems are able to attract or press each other apart or together with a force dependent on the magnetic field and the area of the magnets, For example, the simplest example of lift would be a simple dipole magnet positioned in the magnetic field of another dipole magnet, oriented with like poles facing each other, so that the force between magnets repels the two magnets.

Essentially all types of magnets have been used to generate lift for magnetic levitation; permanent magnets, electromagnets, ferromagnetism, diamagnetism, superconducting magnets and magnetism due to induced currents in conductors.

To calculate the amount of lift, a magnetic pressure can be defined.

For example, the magnetic pressure of a magnetic field on a superconductor can be calculated by:

$$P_{\text{mag}} = \frac{B^2}{2 \mu_0}$$

where  $P_{\text{mag}}$  is the force per unit area in pascals,  $B$  is the magnetic field just above the superconductor in teslas, and  $\mu_0 = 4\pi \times 10^{-7} \text{ N}\cdot\text{A}^{-2}$  is the permeability of the vacuum.

## Stability

Earnshaw's theorem proves that using only paramagnetic materials (such as ferromagnetic iron) it is impossible for a static system to stably levitate against gravity.

For example, the simplest example of lift with two simple dipole magnets repelling is highly unstable, since the top magnet can slide sideways, or flip over, and it turns out that no configuration of magnets can produce stability.

However, servomechanisms, the use of diamagnetic materials, superconduction, or systems involving eddy currents allow stability to be achieved.

In some cases the lifting force is provided by magnetic levitation, but stability is provided by a mechanical support bearing little load. This is termed pseudo-levitation.

## Static

Static stability means that any small displacement away from a stable equilibrium causes a net force to push it back to the equilibrium point.

Earnshaw's theorem proved conclusively that it is not possible to levitate stably using only static, macroscopic, paramagnetic fields. The forces acting on any paramagnetic object in any combinations of gravitational, electrostatic, and magnetostatic fields will make the object's position, at best, unstable along at least one axis, and it can be unstable equilibrium along all axes. However, several possibilities exist to make levitation viable, for example, the use of electronic stabilization or diamagnetic materials (since relative magnetic permeability is less than one); it can be shown that diamagnetic materials are stable along at least one axis, and can be

stable along all axes. Conductors can have a relative permeability to alternating magnetic fields of below one, so some configurations using simple AC driven electromagnets are self stable.

## **Dynamic Stability**

Dynamic stability occurs when the levitation system is able to damp out any vibration-like motion that may occur.

Magnetic fields are conservative forces and therefore in principle have no built-in damping, and in practice many of the levitation schemes are under-damped and in some cases negatively damped. This can permit vibration modes to exist that can cause the item to leave the stable region.

Damping of motion is done in a number of ways:

external mechanical damping (in the support), such as dashpots, air drag etc.

eddy current damping (conductive metal influenced by field)

tuned mass dampers in the levitated object

electromagnets controlled by electronics

## **Methods**

*Mechanical constraint (in this case the lateral restrictions created by a box) can permit pseudo-levitation of permanent magnets*

For successful levitation and control of all 6 axes (degrees of freedom; 3 translational and 3 rotational) a combination of permanent magnets and electromagnets or diamagnets or superconductors as well as attractive and repulsive fields can be used. From Earnshaw's theorem at least one stable axis must be present for the system to levitate successfully, but the other axes can be stabilized using ferromagnetism.

The primary ones used in maglev trains are servo-stabilized electromagnetic suspension (EMS), electrodynamic suspension (EDS).

### **Mechanical constraint (pseudo-levitation)**

With a small amount of mechanical constraint for stability, achieving pseudo-levitation is a relatively straightforward process.

If two magnets are mechanically constrained along a single vertical axis, for example, and arranged to repel each other strongly, this will act to levitate one of the magnets above the other.

Another geometry is where the magnets are attracted, but constrained from touching by a tensile member, such as a string or cable.

Another example is the Zippe-type centrifuge where a cylinder is suspended under an attractive magnet, and stabilized by a needle bearing from below.

### **Servomechanisms**

The Transrapid system uses servomechanisms to pull the train up from underneath the track and maintains a constant gap while travelling at high speed

The Transrapid system uses servomechanisms to pull the train up from underneath the track and maintains a constant gap while travelling at high speed. The attraction from a fixed strength magnet decreases with increased distance, and increases at closer distances. This is unstable. For a stable system, the opposite is needed, variations from a stable position should push it back to the target position.

Stable magnetic levitation can be achieved by measuring the position and speed of the object being levitated, and using a feedback loop which continuously adjusts one or more electromagnets to correct the object's motion, thus forming a servomechanism.

Many systems use magnetic attraction pulling upwards against gravity for these kinds of systems as this gives some inherent lateral stability, but some use a combination of magnetic attraction and magnetic repulsion to push upwards.

Either system represents examples of ElectroMagnetic Suspension (EMS). For a very simple example, some tabletop levitation demonstrations use this principle, and the object cuts a beam of light to measure the position of the object. The electromagnet is above the object being levitated; the electromagnet is turned off whenever the object gets too close, and turned back on when it falls further away. Such a simple system is not very robust; far more effective control systems exist, but this illustrates the basic idea.

EMS magnetic levitation trains are based on this kind of levitation: The train wraps around the track, and is pulled upwards from below. The servo controls keep it safely at a constant distance from the track.

## **Induced currents**

These schemes work due to repulsion due to Lenz's law. When a conductor is presented with a time-varying magnetic field electrical currents in the conductor are set up which create a magnetic field that causes a repulsive effect.

These kinds of systems typically show an inherent stability, although extra damping is sometimes required.

## **Relative motion between conductors and magnets**

If one moves a base made of a very good electrical conductor such as copper, aluminium or silver close to a magnet, an (eddy) current will be

induced in the conductor that will oppose the changes in the field and create an opposite field that will repel the magnet (Lenz's law). At a sufficiently high rate of movement, a suspended magnet will levitate on the metal, or vice versa with suspended metal. Litz wire made of wire thinner than the skin depth for the frequencies seen by the metal works much more efficiently than solid conductors.

An especially technologically interesting case of this comes when one uses a Halbach array instead of a single pole permanent magnet, as this almost doubles the field strength, which in turn almost doubles the strength of the eddy currents. The net effect is to more than triple the lift force. Using two opposed Halbach arrays increases the field even further.

Halbach arrays are also well-suited to magnetic levitation and stabilisation of gyroscopes and electric motor and generator spindles.

## **Oscillating electromagnetic fields**

A conductor can be levitated above an electromagnet (or vice versa) with an alternating current flowing through it. This causes any regular conductor to behave like a diamagnet, due to the eddy currents generated in the conductor. Since the eddy currents create their own fields which oppose the magnetic field, the conductive object is repelled from the electromagnet, and most of the field lines of the magnetic field will no longer penetrate the conductive object.

This effect requires non-ferromagnetic but highly conductive materials like aluminium or copper, as the ferromagnetic ones are also strongly attracted to the electromagnet (although at high frequencies the field can still be expelled) and tend to have a higher resistivity giving lower eddy currents. Again, litz wire gives the best results.

The effect can be used for stunts such as levitating a telephone book by concealing an aluminium plate within it.

At high frequencies (a few tens of kilohertz or so) and kilowatt powers small quantities of metals can be levitated and melted using levitation melting

without the risk of the metal being contaminated by the crucible.

One source of oscillating magnetic field that is used is the linear induction motor. This can be used to levitate as well as provide propulsion.

## **Diamagnetically Stabilized Levitation**

Earnshaw's theorem does not apply to diamagnets. These behave in the opposite manner to normal magnets owing to their relative permeability of  $\mu_r < 1$  (i.e. negative magnetic susceptibility). Diamagnetic levitation can be inherently stable.

A permanent magnet can be stably suspended by various configurations of strong permanent magnets and strong diamagnets. When using superconducting magnets, the levitation of a permanent magnet can even be stabilized by the small diamagnetism of water in human fingers.

## **Diamagnetic levitation**

Diamagnetism is the property of an object which causes it to create a magnetic field in opposition to an externally applied magnetic field, thus causing the material to be repelled by magnetic fields. Diamagnetic materials cause lines of magnetic flux to curve away from the material. Specifically, an external magnetic field alters the orbital velocity of electrons around their nuclei, thus changing the magnetic dipole moment. According to Lenz's law, this opposes the external field. Diamagnets are materials with a magnetic permeability less than  $\mu_0$  (a relative permeability less than 1). Consequently, diamagnetism is a form of magnetism that is only exhibited by a substance in the presence of an externally applied magnetic field. It is generally quite a weak effect in most materials, although superconductors exhibit a strong effect.

## **Direct diamagnetic levitation**

## Diamagnetic levitation of pyrolytic carbon

A live frog levitates inside a 32 mm diameter vertical bore of a Bitter solenoid in a magnetic field of about 16 teslas

A substance that is diamagnetic repels a magnetic field. All materials have diamagnetic properties, but the effect is very weak, and is usually overcome by the object's paramagnetic or ferromagnetic properties, which act in the opposite manner. Any material in which the diamagnetic component is stronger will be repelled by a magnet.

Diamagnetic levitation can be used to levitate very light pieces of pyrolytic graphite or bismuth above a moderately strong permanent magnet. ***As water is predominantly diamagnetic, this technique has been used to levitate water droplets and even live animals, such as a grasshopper, frog and a mouse.*** However, the magnetic fields required for this are very high, typically in the range of 16 teslas, and therefore create significant problems if ferromagnetic materials are nearby.

The minimum criterion for diamagnetic levitation is  $B \frac{dB}{dz} = \mu_0 \rho \frac{g}{\chi}$ , where:

$\chi$  is the magnetic susceptibility

$\rho$  is the density of the material

$g$  is the local gravitational acceleration ( $-9.8 \text{ m/s}^2$  on Earth)

$\mu_0$  is the permeability of free space

$B$  is the magnetic field

$\frac{dB}{dz}$  is the rate of change of the magnetic field along the vertical axis.

Assuming ideal conditions along the z-direction of solenoid magnet:

Water levitates at  $B \frac{dB}{dz} \approx 1400 \text{ T}^2/\text{m}$

Graphite levitates at  $B \frac{dB}{dz} \approx 375 \text{ T}^2/\text{m}$ .



Levitron is an example of spin-stabilized magnetic levitation

## **Superconductors**

Superconductors may be considered perfect diamagnets, and completely expel magnetic fields due to the Meissner effect when the superconductivity initially forms; thus superconducting levitation can be considered a particular instance of diamagnetic levitation. In a type-II superconductor, the levitation of the magnet is further stabilized due to flux pinning within the superconductor; this tends to stop the superconductor from moving with respect to the magnetic field, even if the levitated system is inverted.

These principles are exploited by EDS (Electrodynamic Suspension), superconducting bearings, flywheels, etc.

A very strong magnetic field is required to levitate a train. The JR–Maglev trains have superconducting magnetic coils, but the JR–Maglev levitation is not due to the Meissner effect.

## **Rotational stabilization**

A magnet with a toroidal field can be stably levitated against gravity when gyroscopically stabilized by spinning it in a second toroidal field created by a base ring of magnet(s). However, this only works while the rate of precession is between both upper and lower critical thresholds—the region of stability is quite narrow both spatially and in the required rate of precession. The first discovery of this phenomenon was by Roy M. Harrigan, a Vermont inventor who patented a levitation device in 1983 based upon it. Several devices using rotational stabilization (such as the popular Levitron branded levitating top toy) have been developed citing this patent. Non-commercial devices have been created for university research laboratories, generally using magnets too powerful for safe public interaction.

## **Strong focusing**

Earnshaw's theory strictly only applies to static fields. Alternating magnetic fields, even purely alternating attractive fields, can induce stability and confine a trajectory through a magnetic field to give a levitation effect.

This is used in particle accelerators to confine and lift charged particles, and has been proposed for maglev trains as well.

## **Uses**

### **Maglev transportation**

Maglev, or magnetic levitation, is a system of transportation that suspends, guides and propels vehicles, predominantly trains, using magnetic levitation from a very large number of magnets for lift and propulsion. This method has the potential to be faster, quieter and smoother than wheeled mass transit systems. The technology has the potential to exceed 6,400 km/h (4,000 mi/h) if deployed in an evacuated tunnel. If not deployed in an evacuated tube the power needed for levitation is usually not a particularly large percentage and most of the power needed is used to overcome air drag, as with any other high speed train.

The highest recorded speed of a maglev train is 603 kilometers per hour (374.69 mph), achieved in Japan on April 21, 2015, 28.2 km/h faster than the conventional TGV speed record.

### **Magnetic bearings**

Magnetic bearings

Flywheels

Centrifuges

Magnetic ring spinning

### **Levitation melting**

**Electromagnetic levitation (EML)**, patented by Muck in 1923, is one of the oldest levitation techniques used for containerless experiments. The technique enables the levitation of an object using electromagnets. A typical EML coil has reversed winding of upper and lower sections energized by a radio frequency power supply.

## History

1839 Earnshaw's theorem showed electrostatic levitation cannot be stable; later theorem was extended to magnetostatic levitation by others

1912 Emile Bachelet awarded a patent in March 1912 for his “levitating transmitting apparatus” (patent no. 1,020,942) for electromagnetic suspension system

1933 Superdiamagnetism Walther Meissner and Robert Ochsenfeld (the Meissner effect)

1934 Hermann Kemper “monorail vehicle with no wheels attached.” Reich Patent number 643316

1939 Braunbeck’s extension showed that magnetic levitation is possible with diamagnetic materials

1939 Bedford, Peer, and Tonks aluminum plate placed on two concentric cylindrical coils shows 6-axis stable levitation.[16]

1961 James R. Powell and BNL colleague Gordon Danby electrodynamic levitation using superconducting magnets

1970s Spin stabilized magnetic levitation Roy M. Harrigan

1974 Magnetic river Eric Laithwaite and others

1979 transrapid train carried passengers

1984 Low speed maglev shuttle in Birmingham Eric Laithwaite and others

1997 Diamagnetically levitated live frog Andre Geim[10]

1999 Inductrack permanent magnet electrodynamic levitation (General Atomics)

2000 The first man-loading HTS maglev test vehicle “Century” in the world was successfully developed in China.[17]

2005 homopolar electrodynamic bearing[18]

**Electrostatic levitation** is the process of using an electric field to levitate a charged object and counteract the effects of gravity.

**Acoustic levitation (also: Acoustophoresis)** is a method for suspending matter in a medium by using acoustic radiation pressure from intense sound waves in the medium.

Sometimes ultrasonic frequencies can be used to levitate objects, thus creating no sound heard by the human ear, such as was demonstrated at Otsuka Lab, while others use audible frequencies. There are various ways of emitting the sound wave, from creating a wave underneath the object and reflecting it back to its source, to using a (transparent) tank to create a large acoustic field.

Acoustic levitation is usually used for containerless processing which has become more important of late due to the small size and resistance of microchips and other such things in industry. Containerless processing may also be used for applications requiring very-high-purity materials or chemical reactions too rigorous to happen in a container. This method is harder to control than other methods of containerless processing such as electromagnetic levitation but has the advantage of being able to levitate nonconducting materials.

By 2013, acoustic levitation had progressed from motionless levitation to controllably moving hovering objects, an ability useful in the pharmaceutical and electronics industries. A prototype device involved a chessboard-like array of square acoustic emitters that move an object from one square to another by slowly lowering the sound intensity emitted from one square while increasing the sound intensity from the other.

Current systems have lifted at most a few kilograms. Acoustic levitators are used mostly in industry however some products are commercially available to the public."

So. Convert body to true Yang. Earth is Yin. Yi (Intent/Imagination) moves you where you want to go.  
Boom! Levitation.

Or. Fully activated LDT/MDT/UDT nexus points create levitation through

electrostatics, or superconductivity.

Or all of the above.

Oh the possibilities!

More to come.

Cheers!

#3

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 06:26 PM

### **Part 3 of The Energy Cultivators Handbook by Infolad1**

#### **"Appropriate Training Time:**

##### Training in Accordance with the Seasons (Month):

“Spring and summer nourish yang, fall and winter nourish yin.” –Su Wen

##### Training in Accordance with the Hour:

Training hours correspond to the superficial circulation of energy meridians which is expressed in two hour increments for each meridian.

#### **Yang Hours:**

- Range: 11pm-11am (Tzu, Chou, Yin, Mao, Chen, Ssu)
- Energetics: Yang expands, yin contracts

- Preferred Practice: Wai Gong
- Preferred Therapy: Strengthen yang

### **Yin Hours:**

- Range: 11am-11pm (Wu, Wei, Shen, Yu, Shu, Hai)
- Energetics: Yin expands, yang contracts
- Preferred Practice: Nei Gong
- Preferred Therapy: strengthen yin

### **Ancient Ideal Hours for Cultivation of Elixir Pellet (Zhen Qi):**

- **Tzu** (11pm-1am): one yang, five yins
- **Wu** (11am-1pm): one yin, five yangs
- **Mao** (5am-7am): four yangs, two yins
- **Yu** (5pm-7pm): four yins, two yangs

### **Nexus Points. Plexuses. Nerve Centers:**

**The illustrations and charts above are for primarily visualization purposes. They may or may not be accurate.**

**The autonomic nervous system (ANS) is a division of the peripheral**

nervous system that influences the function of internal organs. The autonomic nervous system is a control system that acts largely unconsciously and regulates bodily functions such as the heart rate, digestion, respiratory rate, pupillary response, urination, and sexual arousal. This system is the primary mechanism in control of the fight-or-flight response.

Within the brain, the autonomic nervous system is regulated by the hypothalamus. Autonomic functions include control of respiration, cardiac regulation (the cardiac control center), vasomotor activity (the vasomotor center), and certain reflex actions such as coughing, sneezing, swallowing and vomiting. Those are then subdivided into other areas and are also linked to ANS subsystems and nervous systems external to the brain. The hypothalamus, just above the brain stem, acts as an integrator for autonomic functions, receiving ANS regulatory input from the limbic system to do so.

The autonomic nervous system has two branches: the sympathetic nervous system and the parasympathetic nervous system. The sympathetic nervous system is often considered the "fight or flight" system, while the parasympathetic nervous system is often considered the "rest and digest" or "feed and breed" system. In many cases, both of these systems have "opposite" actions where one system activates a physiological response and the other inhibits it. An older simplification of the sympathetic and parasympathetic nervous systems as "excitatory" and "inhibitory" was overturned due to the many exceptions found. A more modern characterization is that the sympathetic nervous system is a "quick response mobilizing system" and the parasympathetic is a "more slowly activated dampening system", but even this has exceptions, such as in sexual arousal and orgasm, wherein both play a role.

In general, the autonomic nervous system functions can be divided into sensory (afferent) and motor (efferent) subsystems. Within both, there are inhibitory and excitatory synapses between neurons. Relatively recently, a third subsystem of neurons that have been named 'non-adrenergic and non-cholinergic' neurons (because they use nitric oxide as a neurotransmitter) have been described and found to be integral in autonomic function, in particular in the gut and the lungs.

Although the ANS is also known as the visceral nervous system the ANS is only connected with the motor side. Most autonomous functions are involuntary but they can often work in conjunction with the somatic nervous system which provides voluntary control.

## **Structure**

The autonomic nervous system is divided into the sympathetic nervous system and parasympathetic nervous system. The sympathetic division emerges from the spinal cord in the thoracic and lumbar areas, terminating around L2-3. The parasympathetic division has craniosacral “outflow”, meaning that the neurons begin at the cranial nerves (specifically the oculomotor nerve, facial nerve, glossopharyngeal nerve and vagus nerve) and sacral (S2-S4) spinal cord.

The autonomic nervous system is unique in that it requires a sequential two-neuron efferent pathway; the preganglionic neuron must first synapse onto a postganglionic neuron before innervating the target organ. The preganglionic, or first, neuron will begin at the “outflow” and will synapse at the postganglionic, or second, neuron’s cell body. The postganglionic neuron will then synapse at the target organ.

## **Sympathetic division**

The sympathetic nervous system consists of cells with bodies in the lateral grey column from T1 to L2/3. These cell bodies are "GVE" (general visceral efferent) neurons and are the preganglionic neurons. There are several locations upon which preganglionic neurons can synapse for their postganglionic neurons:

Paravertebral ganglia (3) of the sympathetic chain (these run on either side of the vertebral bodies)  
cervical ganglia (3)  
thoracic ganglia (12) and rostral lumbar ganglia (2 or 3)  
caudal lumbar ganglia and sacral ganglia



Prevertebral ganglia (celiac ganglion, aorticorenal ganglion, superior mesenteric ganglion, inferior mesenteric ganglion)

Chromaffin cells of the adrenal medulla (this is the one exception to the two-neuron pathway rule: the synapse is directly efferent onto the target cell bodies)

These ganglia provide the postganglionic neurons from which innervation of target organs follows. Examples of splanchnic (visceral) nerves are:

Cervical cardiac nerves & thoracic visceral nerves, which synapse in the sympathetic chain

Thoracic splanchnic nerves (greater, lesser, least), which synapse in the prevertebral ganglia

Lumbar splanchnic nerves, which synapse in the prevertebral ganglia

Sacral splanchnic nerves, which synapse in the inferior hypogastric plexus

These all contain afferent (sensory) nerves as well, known as GVA (general visceral afferent) neurons.

## **Parasympathetic division**

The parasympathetic nervous system consists of cells with bodies in one of two locations: the brainstem (Cranial Nerves III, VII, IX, X) or the sacral spinal cord (S2, S3, S4). These are the preganglionic neurons, which synapse with postganglionic neurons in these locations:

Parasympathetic ganglia of the head: Ciliary (Cranial nerve III),

Submandibular (Cranial nerve VII), Pterygopalatine (Cranial nerve VII), and Otic (Cranial nerve IX)

In or near the wall of an organ innervated by the Vagus (Cranial nerve X) or Sacral nerves (S2, S3, S4)

These ganglia provide the postganglionic neurons from which innervations of target organs follows. Examples are:

The postganglionic parasympathetic splanchnic (visceral) nerves

The vagus nerve, which passes through the thorax and abdominal regions innervating, among other organs, the heart, lungs, liver and stomach

Sensory neurons

The sensory arm is composed of primary visceral sensory neurons found in the peripheral nervous system (PNS), in cranial sensory ganglia: the geniculate, petrosal and nodose ganglia, appended respectively to cranial nerves VII, IX and X. These sensory neurons monitor the levels of carbon dioxide, oxygen and sugar in the blood, arterial pressure and the chemical composition of the stomach and gut content. They also convey the sense of taste and smell, which, unlike most functions of the ANS, is a conscious perception. Blood oxygen and carbon dioxide are in fact directly sensed by the carotid body, a small collection of chemosensors at the bifurcation of the carotid artery, innervated by the petrosal (IXth) ganglion. Primary sensory neurons project (synapse) onto “second order” or relay visceral sensory neurons located in the medulla oblongata, forming the nucleus of the solitary tract (nTS), that integrates all visceral information. The nTS also receives input from a nearby chemosensory center, the area postrema, that detects toxins in the blood and the cerebrospinal fluid and is essential for chemically induced vomiting or conditional taste aversion (the memory that ensures that an animal that has been poisoned by a food never touches it again). All this visceral sensory information constantly and unconsciously modulates the activity of the motor neurons of the ANS.

## **Innervation**

Autonomic nerves travel to organs throughout the body. Most organs receive parasympathetic supply by the vagus nerve and sympathetic supply by splanchnic nerves. The sensory part of the latter reaches the spinal column at certain spinal segments. Pain in any internal organ is perceived as referred pain, more specifically as pain from the dermatome corresponding to the spinal segment.

## **Motor Neurons**

Motor neurons of the autonomic nervous system are found in “autonomic ganglia”. Those of the parasympathetic branch are located close to the target organ whilst the ganglia of the sympathetic branch are located close to the spinal cord.

The sympathetic ganglia here, are found in two chains: the pre-vertebral and pre-aortic chains. The activity of autonomic ganglionic neurons is modulated by “preganglionic neurons” located in the central nervous system. Preganglionic sympathetic neurons are located in the spinal cord, at the thorax and upper lumbar levels. Preganglionic parasympathetic neurons are found in the medulla oblongata where they form visceral motor nuclei; the dorsal motor nucleus of the vagus nerve; the nucleus ambiguus, the salivatory nuclei, and in the sacral region of the spinal cord.

## **Function**

Sympathetic and parasympathetic divisions typically function in opposition to each other. But this opposition is better termed complementary in nature rather than antagonistic. For an analogy, one may think of the sympathetic division as the accelerator and the parasympathetic division as the brake. The sympathetic division typically functions in actions requiring quick responses. The parasympathetic division functions with actions that do not require immediate reaction. The sympathetic system is often considered the "fight or flight" system, while the parasympathetic system is often considered the "rest and digest" or "feed and breed" system.

However, many instances of sympathetic and parasympathetic activity cannot be ascribed to "fight" or "rest" situations. For example, standing up from a reclining or sitting position would entail an unsustainable drop in blood pressure if not for a compensatory increase in the arterial sympathetic tonus. Another example is the constant, second-to-second, modulation of heart rate by sympathetic and parasympathetic influences, as a function of the respiratory cycles. In general, these two systems should be seen as permanently modulating vital functions, in usually antagonistic fashion, to achieve homeostasis. Some typical actions of the sympathetic and parasympathetic systems are listed below.

### **Sympathetic nervous system**

Promotes a "fight or flight" response, corresponds with arousal and energy generation, and inhibits digestion

Diverts blood flow away from the gastro-intestinal (GI) tract and skin via vasoconstriction

Blood flow to skeletal muscles and the lungs is enhanced (by as much as 1200% in the case of skeletal muscles)

Dilates bronchioles of the lung through circulating epinephrine, which allows for greater alveolar oxygen exchange

Increases heart rate and the contractility of cardiac cells (myocytes), thereby providing a mechanism for enhanced blood flow to skeletal muscles

Dilates pupils and relaxes the ciliary muscle to the lens, allowing more light to enter the eye and far vision

Provides vasodilation for the coronary vessels of the heart

Constricts all the intestinal sphincters and the urinary sphincter

Inhibits peristalsis

Stimulates orgasm

## **Parasympathetic Nervous System**

The parasympathetic nervous system has been said to promote a "rest and digest" response, promotes calming of the nerves return to regular function, and enhancing digestion. Functions of nerves within the parasympathetic nervous system include:

Dilating blood vessels leading to the GI tract, increasing blood flow (this is important following the consumption of food, due to the greater metabolic demands placed on the body by the gut)

Constricting the bronchiolar diameter when the need for oxygen has diminished

Dedicated cardiac branches of the vagus and thoracic spinal accessory nerves impart parasympathetic control of the heart (myocardium)

Constriction of the pupil and contraction of the ciliary muscles, facilitating accommodation and allowing for closer vision Stimulating salivary gland secretion, and accelerates peristalsis, mediating digestion of food and, indirectly, the absorption of nutrients

Sexual. Nerves of the peripheral nervous system are involved in the erection of genital tissues via the pelvic splanchnic nerves 2–4. They are also responsible for stimulating sexual arousal

## **Neurotransmitters**

At the effector organs, sympathetic ganglionic neurons release noradrenaline (norepinephrine), along with other cotransmitters such as ATP, to act on adrenergic receptors, with the exception of the sweat glands and the adrenal medulla:

Acetylcholine is the preganglionic neurotransmitter for both divisions of the ANS, as well as the postganglionic neurotransmitter of parasympathetic neurons. Nerves that release acetylcholine are said to be cholinergic. In the parasympathetic system, ganglionic neurons use acetylcholine as a neurotransmitter to stimulate muscarinic receptors.

At the adrenal medulla, there is no postsynaptic neuron. Instead the presynaptic neuron releases acetylcholine to act on nicotinic receptors. Stimulation of the adrenal medulla releases adrenaline (epinephrine) into the bloodstream, which acts on adrenoceptors, producing a widespread increase in sympathetic activity.

## **Enteric nervous system**

The enteric nervous system is embedded in the lining of the gastrointestinal system.

The enteric nervous system (ENS) or intrinsic nervous system is one of the main divisions of the nervous system and consists of a mesh-like system of neurons that governs the function of the gastrointestinal system. It is now usually referred to as separate from the autonomic nervous system since it has its own independent reflex activity.

It is derived from neural crest cells.

## **Structure**

The enteric nervous system consists of some 500 million neurons, (including the various types of Dogiel cells), one two-hundredth of the

number of neurons in the brain, and 5 times as many as the one hundred million neurons in the spinal cord. The enteric nervous system is embedded in the lining of the gastrointestinal system, beginning in the esophagus and extending down to the anus.

The neurons of the ENS are collected into two types of ganglia: myenteric (Auerbach's) and submucosal (Meissner's) plexuses. Myenteric plexuses are located between the inner and outer layers of the muscularis externa, while submucosal plexuses are located in the submucosa.

## **Function**

The ENS is capable of autonomous functions such as the coordination of reflexes; although it receives considerable innervation from the autonomic nervous system, it can and does operate independently of the brain and the spinal cord. Its study is the focus of neurogastroenterology.

ENS function can be damaged by ischemia. Transplantation, previously described as a theoretical possibility, has been a clinical reality in the United States since 2011 and is currently performed at a number of approved centers.

## **Complexity**

The enteric nervous system has been described as a "second brain" for several reasons. The enteric nervous system can operate autonomously. It normally communicates with the central nervous system (CNS) through the parasympathetic (e.g., via the vagus nerve) and sympathetic (e.g., via the prevertebral ganglia) nervous systems. However, vertebrate studies show that when the vagus nerve is severed, the enteric nervous system continues to function.

In vertebrates, the enteric nervous system includes efferent neurons, afferent neurons, and interneurons, all of which make the enteric nervous system capable of carrying reflexes and acting as an integrating center in the absence of CNS input. The sensory neurons report on mechanical and

chemical conditions. Through intestinal muscles, the motor neurons control peristalsis and churning of intestinal contents. Other neurons control the secretion of enzymes. The enteric nervous system also makes use of more than 30 neurotransmitters, most of which are identical to the ones found in CNS, such as acetylcholine, dopamine, and serotonin. More than 90% of the body's serotonin lies in the gut, as well as about 50% of the body's dopamine, which is currently being studied to further our understanding of its utility in the brain.

The enteric nervous system has the capacity to alter its response depending on such factors as bulk and nutrient composition. In addition, ENS contains support cells which are similar to astroglia of the brain and a diffusion barrier around the capillaries surrounding ganglia which is similar to the blood–brain barrier of cerebral blood vessels."

So this is some important info about the makeup of the body that we use to move around in, and its energy centers. If I missed anything, let me know.

Cheers!

#4

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 06:58 PM

**Part 4 of The Energy Cultivators Handbook by Infolad1**

From page 112 of William Bodri's "Gongfu Transformations of the Physical

Body" PDF:

## "TIMELINES FOR THE VARIOUS SEQUENCES OF TRANSFORMATION

Taoism is a most useful cultivation school—perhaps the most useful--for explaining spiritual evolution according to the various physical transformations that can occur along the cultivation path. Furthermore, it is especially useful for having identified the general time sequences of these processes, and for having linked itself with the Chinese medical field as one of its outer garments. In review, we must remember that the various time sequences of cultivation transformation run generally as follows:

<b>Time Required</b>	<b>Name of Cultivation Stage</b>	<b>Biophysical</b>
100 days of jing to chi	“Building the Foundation”	Initial transformation
10 months transformation of jing to chi, transformation of chi to shen	“Pregnancy”	Completing the Starting the
3 years to shen transformation, transformation of shen to emptiness	“Suckling the Baby”	Completing the chi Starting the
9 year shen to emptiness transformation, and starting to abandon emptiness for the Tao	“Facing the Wall”	Completing the



Indeterminate  
neither existence nor  
(emptiness)

“Breaking Emptiness and  
Returning to Tao”

Achieving a state of  
non-existence

We can also summarize this set of sequences by saying:

It is said that “Building up the foundation in one hundred days” is the preliminary stage required for transmutation of ching into ch’i, and that “pregnancy for ten months” is the preliminary stage necessary for the transmutation of ch’i into shen. “To suckle for three years” is the beginning of the transmutation of shen into void or emptiness. Finally, “facing the wall for nine years” is the last step required for breaking up the empty space. *58 Tao and Longevity: Mind-Body Transformation, Nan Huai-Chin, trans. by Wen Kuan Chu (Samuel Weiser, York Beach: Maine, 1991), p. 85.*

As Taoism always emphasizes, if you cultivate correctly, not only will your internal esoteric substances of jing, chi and shen transform according to a well established, sequential process of alchemical reactions, but your corporeal, physical body will transform along with these spiritual changes as well. In general, the physical body will transform according to the following general scheme we previously mentioned which correlates to the transformations expected between jing, chi, and shen:

**After one year** of practice, your chi will be transformed.

**After two years** of practice, your blood will be transformed.

**After three years**, your mai (blood vessels, nerves and energy channels) will be transformed.

**After four years**, your muscles (flesh) will be transformed.

**After five years**, your bone marrow will be transformed.

**After six years**, your sinews and tendons will be transformed.

**After seven years**, your bones will be transformed.

**After eight years**, your hair will be transformed.

**After nine years** of cultivation, your entire bodily form (shape) will be transformed.

No matter how smart you are, no matter how wise you are, no matter what substances you might wish to ingest to speed up this process, no matter how high your stage of spiritual attainment, there is a limit to how much you can rush this process of physical transformation. Because these transformations involve the physical body, there is a natural limit as to how much faster you can make them transpire.

The reason you can't rush this process is because it invariably requires a specific amount of time—given our human bodies--in order to change the physical structures of this human body. Even a fully enlightened Buddha has to wait roughly this same amount of time for these transformations to become complete, just as a child cannot speed up the time required to pass through puberty. Of course with prajna wisdom these physical changes might happen a little bit more quickly and they will certainly occur with less side troubles, but all true cultivators have to pass

through them nonetheless."

Bodri always describes it as an 18 year sequence, but as you can see, the last stage is an indeterminate length of time.

You're transforming a body that operates within the constraints of space and time, into something that can operate beyond them, so it's going to take a minute for the transformation to occur. No getting around that.

And never forget: ***WE are NOT the body! We aren't even IN the body. We function In this virtual reality simulation THROUGH the body, like your avatar In a game of "Halo".*** More on this In the next part. It's a doozy.

Look at the transformation stages as a guideline. your mileage may vary.

The above, and more, are available on his Meditation Expert site, at the bottom of the page as a free download:

<http://www.meditatio...com/stages.html>

Last time I talked to him, he was no longer offering the Stages class, unfortunately.

Maybe that's changed, I don't know.

Bodri has LOTS of great data. Read everything on his site. Invaluable. And buy his books!

I did.

Cheers!

Edited by Infolad1, 30 November 2015 - 07:07 PM.

#5

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 08:13 PM

## **Part 5 of The Energy Cultivators Handbook by Infolad1**

From my experience:

**We are already the seer, already The Witness. So there actually is no stage.**

**There are no "Bodies" to transform.**

**"There IS no spoon."**

**All of these processes are just getting the false self out of the way, to see this reality. To BE this reality.**

But since most of us can't directly see this:

There's the mental stages (popularized by Ch'an/Zen), and the physical stages (popularized by Taoism)

And these stages are not always as linear, as some people want to make them out to be.

From the physical viewpoint:

**Ling Bao Tong Zhineng Neigong Shu** can be divided into 5 different stages:

Refine the body to accumulate qi (entering the door)

Conversion of essence to qi (foundation)

Conversion of qi to shen (condensation of the cinnabar (dan))

Refinement of shen to void (completion of cinnabar)  
(The Beginning of dissolving the false self, to reveal the True Self)

Refinement of void to Dao (application of the cinnabar)  
(The Self experiences it's true nature)

### **From the mental viewpoint:**

"Taoism describes the four dhyana primarily on the basis of physical characteristics.

If you talk about the process of refining the jing, chi and shen, you must refine your jing into chi, "without letting the elixir leak," in order to arrive at the first dhyana.

You must then refine your chi into shen to reach the second dhyana.

In the third dhyana you must succeed in refining shen into emptiness

And in the fourth dhyana, you have to abandon thoughts and let everything be empty, which is to become totally pure and clear.

Thus the Taoist synopsis is as follows:

**The first level of dhyana** is cessation of thought. Concentrate the mind to one [point]; there is nothing that cannot be done.

**The second dhyana** is the cessation of chi (Breath).

**In the third stage**, the pulse [mai] is at rest. Jing, chi and shen all return to the origin.

**The fourth dhyana** is dropping thought [altogether] to reach purity. “The two forms, movement and stillness, spontaneously do not arise.” What is spontaneously not arising? It is I. Spontaneity is selfless.<sup>335</sup>

Don't think that only the Tao school recognizes this categorization scheme, for even the Zen school recognizes these phenomena! This is something that modern scholars all tend to ignore, but as Zen master Yun-men said for us:

**In the first stage** of meditation, thoughts stop.

**In the second stage** of meditation, breathing stops.

**In the third stage** of meditation, the pulses stop.

**In the fourth stage** of meditation, extinction culminates in great stability.<sup>336</sup>

335- Grass Mountain: A Seven Day Intensive in Ch'an Training, trans. by Margaret Yuan and Janis Walker (Samuel Weiser, York Beach: Maine, 1986), p. 100.

336- Taoist Meditation: Method for Cultivating a Healthy Mind and Body, trans. By Thomas Cleary (Shambhala Publications, Boston, 2000), p. 69."

The above is from William Bodri's, "THE VARIOUS STAGES OF THE SPIRITUAL EXPERIENCE".

The third stage is "The little deaths", with the fourth stage being "The Major Death", described In various texts, the "Ordeal, Death, & Re-Birth", and "Resurrection" stages of The Hero's Journey:

8. **THE ORDEAL.** Near the middle of the story, the hero enters a central space in the

Special World and confronts death or faces his or her greatest fear.

***Out of the moment of death comes a new life.***

11. **THE RESURRECTION.** At the climax, the hero is severely tested once more on

the threshold of home. He or she is purified by a last sacrifice, another moment

of death and rebirth, but on a higher and more complete level. By the hero's

action, ***the polarities that were in conflict at the beginning are finally resolved.***

In other words, Yin and Yang "Fuse", creating "The One".

Matrix He is the one 1080p Full HD.

Like Neo, "You Now See With New Eyes".

Other examples of "Death, and Resurrection", In cultivation practices:

One from yoga. Here's an excerpt from Arthur Avalon's "The Serpent Power":

***"As KundalinI ascends, the lower limbs become as inert and cold as a corpse; so also does every part of the body when She has passed through , and leaves it.***

This is due to the fact that She as the Power which supports the body as an organic whole is leaving Her centre. On the contrary, the upper part of the head becomes "lustrous," by which is not meant any external lustre (Prabha), but brightness, warmth, and animation.

When the Yoga is complete, the Yogi sits rigid in the posture selected, and the only trace of warmth to be found in the whole body is at the crown of the head, where the Shakti is united with Shiva.

Those, therefore, who are skeptical, can easily verify some of the facts should they be fortunate enough to find a successful Yogi who will let them see him at work.

They may observe his ecstasies, and the coldness of the body, which is not present in the case of what is called the Dhyana Yogi, or a Yogi operating by meditation only, and not rousing Kundalini.

This cold is an external and easily perceptible sign. Its progression may be seen, obviously denoting the passing away of something which supplied the previous heat. ***The body seems lifeless***, indicating that its supporting power has (though not entirely) left it.

The downward return of the Shakti thus moved is, on the other hand, indicated by the reappearance of warmth, vitality, and the normal consciousness. The return process is one of evolution from the highest state of attainment, to the point of departure."

And one from modern times. an excerpt from Robert Monroe's "Ultimate Journey", where he went to the farthest reaches of time space consciousness:



"page 218

Ram, is that you?

It is. Your scout is back.

Control your radiation! You're burning us out!  
(Note: Monroe's radiation (Shen?) was too strong for his companions).

page 219

Robert A. Monroe

Oh, sorry. Is that better?

When you broke the uplink, we did not know if you would come back. But you have! Now we can act. But first you had better . . .

I have it! I have what you need!  
Stop and listen, will you?  
What is it?

You must move back into your physical body. Now.  
Why? Is something wrong?

We have been trying to send a thought to you. When your uplink broke, it also cut you off from your physical body. If you do not move back quickly, you may lose it. It is not yet the right time.

... If they were concerned, so was I! They gave me a surge of energy as I began a rapid shift back to the physical phase. The body was shocked, and I was shocked — ***it was so***

***cold, the blood pressure very low, the pulse rate slow, the heart near fibrillation.*** As I started the breathing again, deeply, the body began slowly to warm up, to move back to normal, but the muscles were stiff ... it would take several days to get them back into reasonable operation . . . "

As seen from these excerpts, we are dealing with the forces of life, and death with these practices.

They should be approached with respect, and a thorough understanding of the risk/reward Involved. Not doing so could be the literal death of you.

Yet another very good reason why an experienced Instructor is advised.

More to come on Tuesday.

Cheers!

#6

JinlianPai

Dao Bum

Banned

468 posts

Posted 30 November 2015 - 10:48 PM

InfoLad,

I see that your into western science and that is good.

but

Please get into Feng Shui. Which deals with the transmutation of chi.

Chi transforms thru out the day thru the 8 forces being able to feel this

transmutation process as the day progress is very good.

Feng Shui goes deep to creating spiritual barriers to dealing with the spirit world to taoist magic and so forth.

Knowing the transmutation of chi and how it affects the tao and harmonizing with it is feng shui.

A Feng Shui master can step into a area and can feel that energy imbalance and tell you that the metal energy is conflicting with the wood energy and so forth.

.

#7

KenBrace

Immortal

The Dao Bums

963 posts

Gender:Male

Posted 30 November 2015 - 11:02 PM

@Infolad1

You have the longest forum posts I've ever seen.

## [Qigong Forum](#)

Are you interested in qigong, martial arts, eastern philosophies, or other related topics?

Join the newly founded Qigong Forum and share your thoughts & experiences with like-minded enthusiasts!

Anyone and everyone is welcome!

#8

InfoLad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 11:13 PM

**JinlianPai, on 01 Dec 2015 - 06:48, said:**

InfoLad,

I see that your into western science and that is good.

but

Please get into Feng Shui. Which deals with the transmutation of chi.

Chi transforms thru out the day thru the 8 forces being able to feel this transmutation process as the day progress is very good.

Feng Shui goes deep to creating spiritual barriers to dealing with the spirit world to taoist magic and so forth.

Knowing the transmutation of chi and how it affects the tao and harmonizing with it is feng shui.

A Feng Shui master can step into a area and can feel that energy imbalance and tell you that the metal energy is conflicting with the wood energy and so forth.

Hi JinlianPai,

Thanks for looking out for me.

I always walk the middle road.

I'm a science nerd from since I could read.

But In addition to cultivation work, I do Tai Chi Quan (Yang, and Chen), Baguazhang, and

Bagua Astrology, Bazi Astrology, Feng Shui (both my Sifu, and Grandmaster Tu do it ),  
Divination (I Ching, and Metu Neter oracles for the past 20 years), Theurgy (by way of Ancient Egypt),  
Vedic Astrology (Krishnamurti Padhati), and various forms of meditation.

Real science works, regardless of paradigm. Science is from the latin scire "To Know". That's my goal,  
utilizing anything within arm's reach (Although these days, more things are coming from Inside, than out,  
with the outside just providing details, putting the knowledge in-form-ation. I'm waking up. )

Balance In everything is the rule my friend. Thanks again.

Cheers!

.

#9

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 30 November 2015 - 11:25 PM

**KenBrace, on 01 Dec 2015 - 07:02, said:**

@Infolad1

You have the longest forum posts I've ever seen.  
Thanks Ken!

Energy cultivation is a science. Precision, correct nomenclature, and a thorough breakdown of all variables is essential.

We're talking about systems that effect people's lives powerfully, and

directly,  
which I can personally attest to. So I strive to be as thorough, and complete  
as  
possible when discussing these practices with others.

Your average Pubmed study is four pages, not including charts, photos,  
and illustrations.

With matters such as these, short posts don't always suffice, unfortunately.

Cheers!

#10

JinlianPai

Dao Bum

Banned

468 posts

Posted 02 December 2015 - 03:10 AM

**Infolad1, on 01 Dec 2015 - 07:13, said:**

But In addition to cultivation work, I do Tai Chi Quan (Yang, and Chen), Baguazhang,  
and  
Bagua Astrology, Bazi Astrology, Feng Shui (both my Sifu, and Grandmaster Tu do it ),  
Divination (I Ching, and Metu Neter oracles for the past 20 years), Theurgy (by way of  
Ancient Egypt),  
Vedic Astrology (Krishnamurti Padhati), and various forms of meditation.

Real science works, regardless of paradigm. Science is from the latin scire "To Know".  
That's my goal,  
**utilizing anything within arm's reach** (Although these days, more things are coming  
from Inside, than out,  
with the outside just providing details, putting the knowledge in-form-ation. I'm waking  
up. )

Balance In everything is the rule my friend. Thanks again.

Cheers!

Ah good.

Knowledge is much but to understand the essence or the marrow of it is much harder.

All one needs is one good art and for the master t be honest with them.

#11

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 02 December 2015 - 09:41 AM

## **Part 6 of The Energy Cultivators Handbook by Infolad1**

Hi everyone!

I've seen from previous posts, that there are questions, and rightly so, about the afterlife.

Also questions about reincarnation.

Makes sense. The goal of some folks doing these practices is to not have to ever come back to this plane of reality.

So how do you know If you've successfully achieved this ability to "graduate out of the school of life early?"

Why, you go there early, to check it all out of course!

The following is to be both viewed, and read with my primary rule in mind:

**If You Haven't Directly Experienced It Yourself, It's Hearsay, and Speculation, Until Proven Otherwise.**

In other words, BELIEVE NOTHING. Not from a book. Not from a video. And especially not from me.

Your direct experience, and confirmation trumps everything.

With the above caveat in place, if you're not aware of him already, I'm going to introduce you to Tom Campbell. "Who is he?", you may ask. The following is from his site:

<http://www.my-big-toe.com/about/>

**Tom Campbell** began researching altered states of consciousness with Bob Monroe (Journeys Out Of The Body, Far Journeys, and The Ultimate Journey) at Monroe Laboratories in the early 1970s where he and a few others were instrumental in getting Monroe's laboratory for the study of consciousness up and running. These early drug-free consciousness pioneers helped design experiments, developed the technology for creating specific altered states, and were the main subjects of study (guinea pigs) all at the same time. Campbell has been experimenting with, and exploring the subjective and objective mind ever since. For the past thirty years, Campbell has been focused on scientifically exploring the properties, boundaries, and abilities of consciousness.

During that same time period, he has excelled as a working scientist, a professional physicist dedicated to pushing back the frontiers of cutting edge technology, large-system simulation, technology development and integration, and complex system vulnerability and risk analysis. Presently, and for the past 20 years, he has been at the heart of developing US missile defense systems.



Tom is the “TC (physicist)” described in Bob Monroe’s second book Far Journeys and has been a serious explorer of the frontiers of reality, mind, consciousness, and psychic phenomena since the early 1970s. My Big TOE is a model of existence and reality that is based directly on Campbell’s scientific research and first hand experience. It represents the results and conclusions of thirty years of careful scientific exploration of the boundaries and contents of reality from both the physical and metaphysical viewpoints. The author has made every effort to approach his explorations without bias or preconceived notions. There is no belief system, dogma, creed, or unusual assumptions at the root of My Big TOE.

By demanding high quality repeatable, empirical, evidential data to separate what’s real (exists independently and externally) from what’s imaginary or illusory; Campbell has scientifically derived this general model of reality.

Here's a multi part lecture he did In London, on the nature of reality. It's 18 parts, so just put them into a playlist:

Slides: <http://www.my-big-toe.com/kshopSlides.pdf>

Here's the first 7:

### **Physics, Metaphysics & the Consciousness Connection 1 of 18**

Physics, Metaphysics & the Consciousness Connection 1 of 18

### **Physics, Metaphysics & the Consciousness Connection 2 of 18**

<https://www.youtube.com/watch?v=cCzkGsdQu2k>

**Physics, Metaphysics & the Consciousness Connection 3 of 18**

Physics, Metaphysics & the Consciousness Connection 3  
of 18

**Physics, Metaphysics & the Consciousness Connection 4 of 18**

Physics, Metaphysics & the Consciousness Connection 4  
of 18

**Physics, Metaphysics & the Consciousness Connection 5 of 18**

Physics, Metaphysics & the Consciousness Connection 5  
of 18

**Physics, Metaphysics & the Consciousness Connection 6 of 18**

Physics, Metaphysics & the Consciousness Connection 6  
of 18

**Physics, Metaphysics & the Consciousness Connection 7 of 18**

Physics, Metaphysics & the Consciousness Connection 7  
of 18

You can look at the rest on YouTube. His YouTube channel has hours of talks that he's given on all aspects of his theory.

This is his "My Big TOE (Theory Of Everything)" book trilogy:

**My Big TOE - The Complete Trilogy -Paperback**

<http://www.amazon.co...y/dp/0972509461>

**My Big Toe (3 Book Series) - Kindle Edition**

[http://www.amazon.co...series\\_rw\\_dp\\_sw](http://www.amazon.co...series_rw_dp_sw)

Here's links to his mentor Robert Monroe's classic books on the matter, which I read 20 years ago:

**Journeys Out of the Body - Kindle Edition**

<http://www.amazon.co...KJED85QE1CF4D4Y>

## Far Journeys - Kindle Edition

<http://www.amazon.co...DR6P1SG2S707T5N>

## The Ultimate Journey - Kindle Edition

<http://www.amazon.co...EYMWER0EQ88816N>

So In a nutshell, this is all a virtual reality simulation, created by consciousness, which is Immaterial (no things/nirvana ). Consciousness views it's creation through beings it populates infinite levels of this simulation with. We are some of these beings. We are mental constructs that It can potentially function through.

We are characters, In a game of "Warcraft".

Liberation, Enlightenment, "Waking Up", is realizing the reality of the above.

Then we reverse the process, unplugging from the sensory inputs of the body, and the thoughts, and images of the false persona, In order to realize our true nature as consciousness. That which sees all, yet is unseen.

Once we wake up to all of this, we can access the equivalent of "cheat codes", enabling us to do things the average person(character) can't do.

We begin this process through the harmonics of breathing, putting us into the meditative state.

From Metu Neter Volume1:

If we average **1 breath/min.** (breathing according to the

techniques of meditation, pranayama and kumbhaka), we will make contact with our divine nature. At such a slow rate we would succumb to the grand slumber that Vishnu is said to enjoy in Maha Yoga.

**At 3 breaths per minute** all thought processes stop, and we attain to Satya. That is, the ability to intuit all knowledge. Constant meditation at this pace will heal the body, and prolong life. In addition, we will also activate the Kriya power that will enable us to attain whatever we desire in the world.

**4.5 breaths per minute** will place us in the Treta Yuga state. Although intuition does not function perfectly at this pace, as thoughts can still intrude, understanding of spiritual truths is very high when we are in waking trance at this rate of breathing. This is the characteristic of the men of the silver age.

**6 breaths/min.** will place us in the Dwapara yuga stage, which is excellent for learning material facts.

**7.5 breaths per minute** is the rate for performing japa (protracted repetition of mantras). In this practice a rosary of 108 beads is used to keep track of the count, which is invariably placed at 108, 1080, 10800, etc. This practice is caused by the unfortunate failure to understand the connection of the number 10800 (108, 1080, etc.) with japa. It is the key to the rate of breathing at which japa is effective. Once you are in trance, it matters not if you repeated the mantra once, or 10,000 times. Once trance is achieved, the power of the mantra is awakened.

**9 breaths/min.** corresponds to the rate at which we must breathe when performing Hatha Yoga asanas. It is excellent for strengthening the body, and correcting certain infirmities. Bala Rama, to which this rate corresponds, is the Hindu Hercules.

**18breaths/min.** is the rate at which we are very externalized, and fully

subject to the domination of thoughts and emotions. It is therefore the number (rate) at which the Beast (animal soul) within us lives, and does its thing.  $18 = 666 (6+6+6)$ . To control it, and transcend it, all that we have to do is to deny it of its breath. It is as simple as that.

The above harmonics occur once you get to Tai Hsi, known in yoga as kevala khumbaka aka spontaneous breath suspension. This process is what begins the movement of the real Yang Qi

We access the deeper, true reality at the theta brainwave state. This is the location of the Bardo, of the Duat of Ancient Egypt, and of the "Heavens", and "Hells" of Buddhism, Taoism, and Judeo-Christianity.

As a matter of fact, Professor Michael Persinger has discovered all of this (although he doesn't realize it ) He's also created Cerebro...For real.

His presentation below lays it out:

### **Michael Persinger on No More Secrets**

#### Michael Persinger on No More Secrets

It's funny. Although he's coming from the usual "The brain creates consciousness" meme of most materialists, his conclusions match up with a number of statements in cultivation literature. So his data can be utilized, just not in the way that he planned.

So we already have access to all of our past personas. They're just deep in

our mind's sub folders..and can be accessed through meditation.

We don't go "Out of Body". We've never been In the body. Tom Campbell says it should be called "Going Out of Your Mind" but can't, due to obvious reasons.

Consciousness, which is immaterial, no thing, is the determinate of this process.

Consciousness is the determinate of reality.

Consciousness goes from a state of undifferentiation (no thing) to differentiation (things).

Understanding this, helps us with what we're attempting to achieve.

Or persona (a thing through which sound comes through) is an amalgamation of different things.

A reptilian brain complex (R-Complex=The Serpent Power, which controls breathing),

a mammalian brain complex (the Beast), the neo cortex (left, and right hemispheres,

which create the mental construct known as the human being), and the prefrontal cortex

(newest section, location of "Man").

That which witnesses the functioning, and experiences of the above complexes, is consciousness.

The persona is just a filter, that allows consciousness the ability to experience an infinite number of facets of this simulation.

It's like you deciding which character you're going to play as In "Marvel vs. Capcom".

So when we say "I want to get the method of becoming \_\_\_\_Level

Superman", who is this  
"I" that we're talking about?

Consciousness created everything, including itself, so It, the "True I", is already Superman.  
Actually, being beyond structure, It is the average person on the street's definition of "God".  
It can already do, or be, any thing.

When most people say "I", "Me", or "My", they're talking about the mental construct, the human  
(Earth based man), called "the false self" in a number of ancient texts.

So, to wrap this up, what we're looking to do is to detach from identifying with "the game character"  
that we believe we are, and function as the consciousness that we are, while maintaining access  
to all of the files of the different characters that we've "played" as throughout the eons, including  
this one.

### **How do we do this?**

We currently function in a space/time construct. The left brain hemisphere is temporal  
(time/serial based port), the right brain hemisphere is spacial  
(space/parallel based port).

So we work in the middle of both (middle=meditation), to achieve our goals.

We do this two ways. We have to detach from identifying with the mental construct,  
so we utilize the harmonics of breathing to access different brainwave states,  
in order to reprogram the "software" of the mind, removing conditioned thought patterns  
("The False Self") to eventually be able to function as our true Self,



Consciousness (mental techniques).

We also utilize body oriented exercises (things like Tai Chi Quan, standing, and sitting gongs, etc.) to reprogram the cellular structure, in order for it to handle the forces that will function through it, without being destroyed (physical techniques).

(Although you may reach a point at which you choose to "leave" this level of existence, and the vehicle you use in it. Ways, and means of doing this, are described In various traditions).

So the mental tech is the foundation from which to do the physical tech. It's never one, or the other.

Polarization on the consciousness side means no things (memories, experiences, sensations, etc.)

Polarization on the physical side means no access to our true Self as a God-Man (stuck identifying our self as a limited, screw up = "of course they screwed up. After all, we're only human." )

So Buddhism, and Taoism are both "right".

We use both stillness techniques, and physical force techniques, doing the physical techniques as the seer, the witness (vipassana), using breathing tech (anapana) to get there.

Now having said that, we can access minor abilities, the so-called "powers", or "Siddhis", and still be "human". But as the various ancient texts say, this is where the problems start.

If you haven't transcended the conditioned mental construct, then the physical, and mental structures eventually degrade, and break down (the wiring hasn't been upgraded to handle the influx

of more powerful energy. Higher level mental functions pushing on a rigid mental image, causes it to break  
= Insanity).

So we make sure we upgrade both.

### **So what are the techniques?**

In my next chapter, I'll provide an "Ultimate Booklist" of texts that show how to do the above.

Cheers!

Edited by Infolad1, 02 December 2015 - 10:00 AM.

#12

Infolad1

Dao Bum

The Dao Bums

131 posts

Gender:None Selected

Posted 02 December 2015 - 09:44 AM

**JinlianPai, on 02 Dec 2015 - 11:10, said:**

Ah good.

Knowledge is much but to understand the essence or the marrow of it is much harder.

All one needs is one good art and for the master t be honest with them.

True.

I've been blessed with a number of both.

Much success on your journey!

Cheers!

#13

dayzhaze

Dao Bum

The Dao Bums

340 posts

Posted 02 December 2015 - 06:57 PM

Wow some fascinating stuff you got there infolad! /s

**Edited by dayzhaze, 03 December 2015 - 05:38 PM.**

With Metta.

May our creator bless you and your family.

Namaste

#14

soaring crane

Ready, set, don't go!

The Dao Bums

5235 posts

Gender:Male

Location:Germany

Interests:Zhan ZhuangFan Huan Gong

Posted 02 December 2015 - 10:36 PM

**dayzhaze, on 03 Dec 2015 - 02:57, said:**

Wow some fascinating stuff you got there infolad!

Gotta agree with this. Thank you, Infolad1, for the effort you put in here, it's much appreciated, and your screen name was well-chosen :-)

Fyi, I'm collecting your posts into a pdf.

~~~ [TheDàoBums' Three Foundations: Eclectic, Egalitarian, Civil](#) ~~~

~~~ "We are each an experiment of one" -- [George Sheehan](#) ~~~

~~~ "People say nothing is impossible, but I do nothing every day." — [A.A. Milne](#), [Winnie-the-Pooh](#) ~~~

~~~ "When we try to pick out anything by itself, we find it hitched to everything else in the Universe." — [John Muir](#) ~~~

#15

JinlianPai

Dao Bum

Banned

468 posts

Posted 05 December 2015 - 05:37 AM  
**Infolad1, on 02 Dec 2015 - 17:44, said:**

True.

I've been blessed with a number of both.

Much success on your journey!

Cheers!

Yes me too.

My teacher was raised in hong kong and trained from a very young age by his father and grand father. My sifu attained the inner thunder zhen qi in his dantian when he was 7yrs old!!!

#16

JohnC

Dao Bum

The Dao Bums

665 posts  
Gender:Male

Posted 06 December 2015 - 08:48 AM

**Infolad1, on 06 Dec 2015 - 16:29, said:**

Hi Soaring Crane,

Question. So does this mean that this thread is closed?

Should I establish a thread myself, with the research I've posted?

This is the first time on here that I've been involved in a thread split.

Please advise on appropriate protocols.

I'm working on the booklist, with commentaries. 1st part will be up by tonight, once I know where to put it.

Also have some VERY Interesting additions to add to the handbook. My current research is leading in some amazing directions.

Thanks In advance.

Cheers!

I think you should.

I'm digging your posts and I think they deserve their own thread.

John