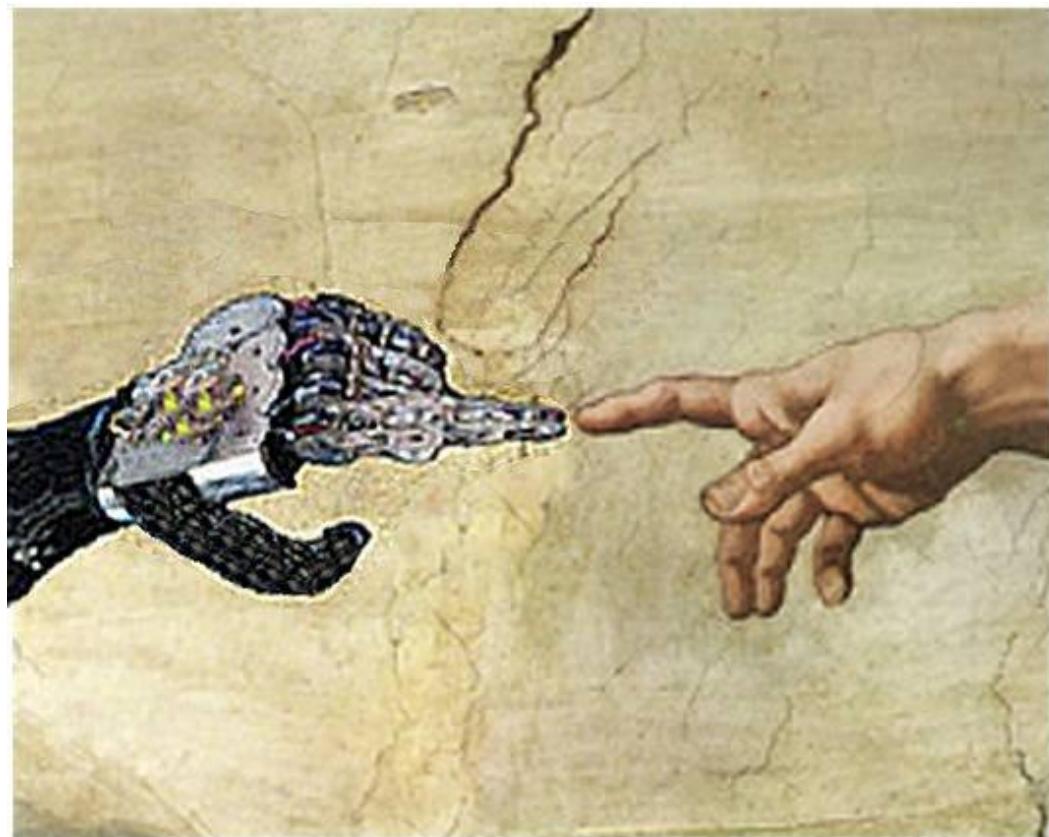


Mankind's Destiny with Machines

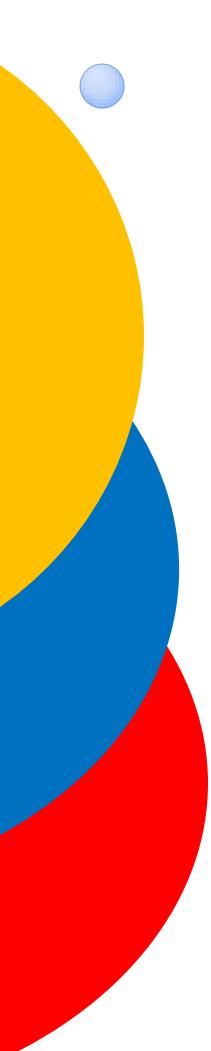
The Western Spiritual Path



Andrew Linnell

jandrewlinnell@yahoo.com

www.thechristianmysteries.org



Outline

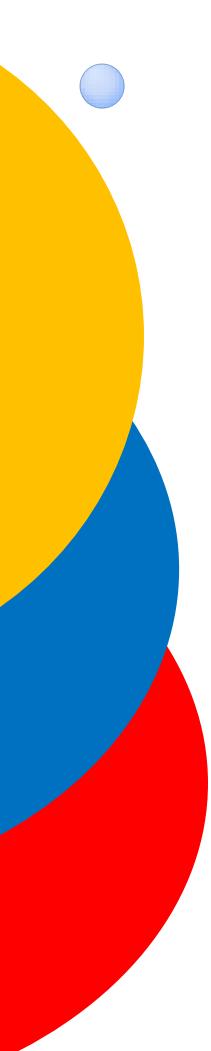
- Intro: Software Engineering & Fundamentals
- Evolution
- Robotics & Artificial Intelligence as part of our evolution
- Conclusion

Basis

- Rudolf Steiner, Anthroposophy (aka Spiritual Science)

Apology

- Too many slides, too much text/slide : Why?



The Princess and the Pebbles

an interview question

- There was once a kingdom where all the people were content and loved their king. This jovial king had a beautiful daughter and he wished to have her married well but no suitors were acceptable to the king.
- One day a man of great intelligence and magic arrived. He dazzled the people with his knowledge and talents. All admired him.
- The king thought this man might be a good fit for his daughter.
- But his daughter could behold the hidden evil in this magician and at first refused to marry him. But this greatly saddened the king who saw that this man would bring power and fame to his kingdom and people.
- The magician proposed for Fate to decide. He would take two pebbles, one black and one white and place them in a hat. The princess would reach into the hat and select one. If black, she would marry him. If white, she would be free to marry another. All agreed.
- But the magician had deceived them placing 2 black pebbles in the hat.
- The honest princess reached into the hat and selected a pebble yet the judge decreed that she was free. What did the princess honorably do?

Software

- Foundation in logic
 - Truth tables
 - OR, AND, XOR, NOT, NOR, NAND
 - Computers do NOT really do math
- How to write software
 - Think about thought sequence
 - Flow chart and definitions
 - If, Then, Else
- Building a new Maya
 - Based on illusion!
 - Based on dead thinking

$$12 = (1)10^1 + (2)10^0$$

A + B = C		Truth Tables	
A	B	True	False
True	True	True	True
	False	True	False

AND	True	False
True	True	False
False	False	False

XOR	True	False
True	False	True
False	True	False

+	1	0
1	0 (+ carry)	1
0	1	0

$$12 = (1)8 + (1)4 + (0)2 + (0)1 = 1100$$

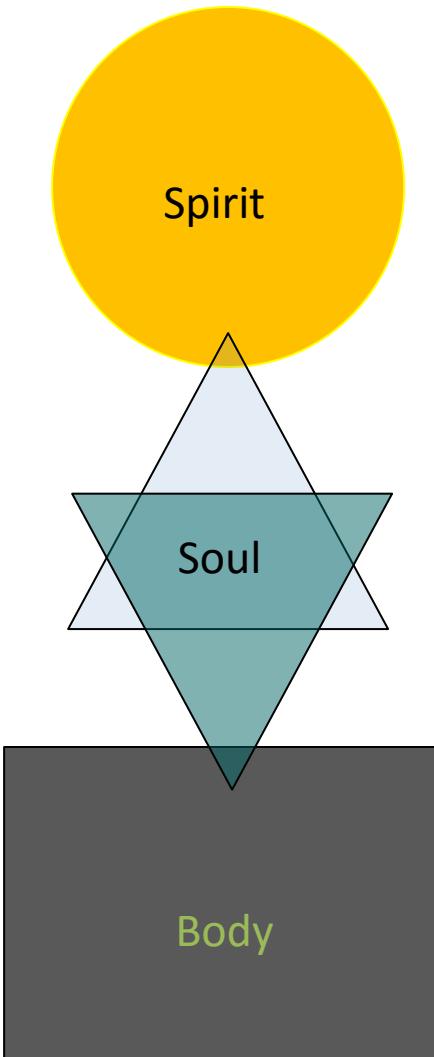


BACKGROUND AND FUNDAMENTALS FOR THIS LECTURE

Natural Science and Spiritual Science

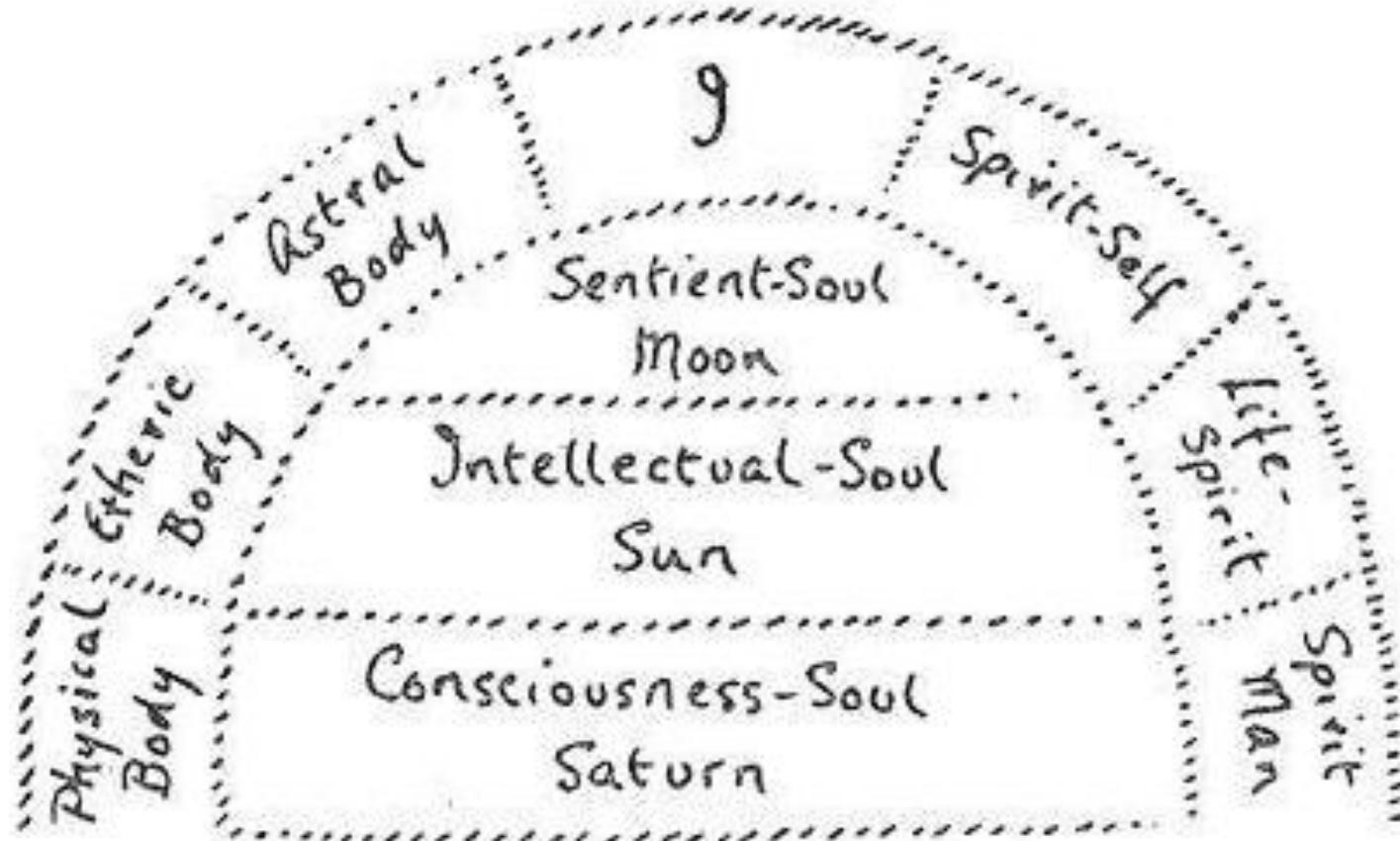
Body, Soul, and Spirit

- Thinking
 - Universal
- Feeling
 - Group
- Willing
 - Individual



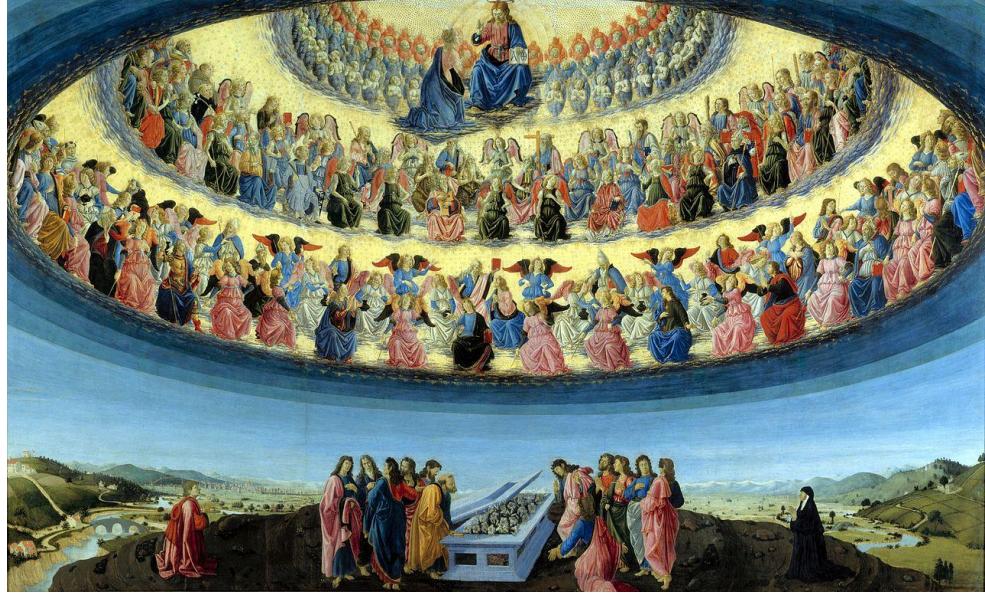
Body – Soul – Spirit Diagrams

Apocalypse of St. John, lecture 9



Our Structure

- Three-fold Members
 - Body, Soul, and Spirit
- Four-fold
 - Physical Body, Life Body (Etheric), Astral Body, Ego
- Nine-fold Microcosm
 - Body: Physical, Etheric, Astral
 - Soul: Sentient, Intellectual, Consciousness
 - Spirit: Spirit Self (Manas), Life Spirit (Buddhi), Spirit Man (Atma)



Ascension of the Virgin, Francesco Botticini (1446-1497) National Gallery of Art, London

R. Steiner, *The Being of Man and His Future Evolution*, GA107, 21 December 1908

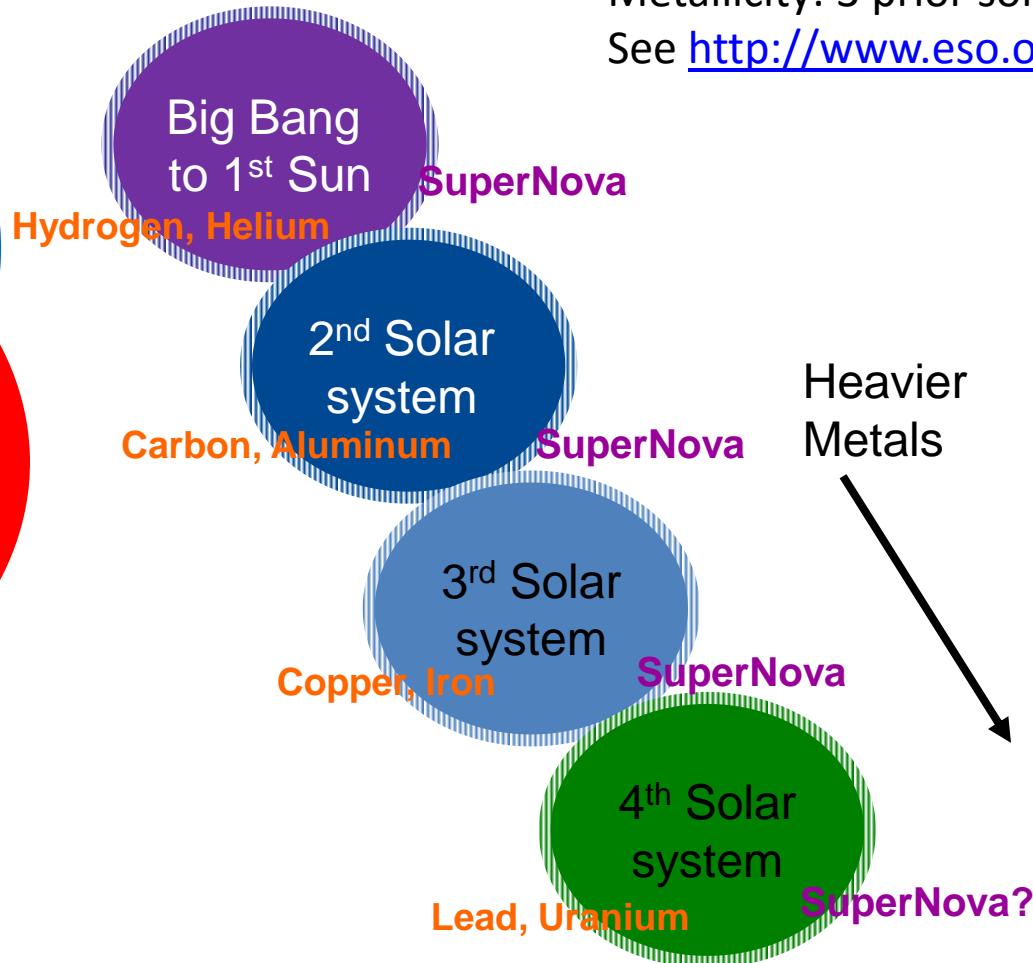
Materialism:

- Mankind as a One-fold Being

Future:

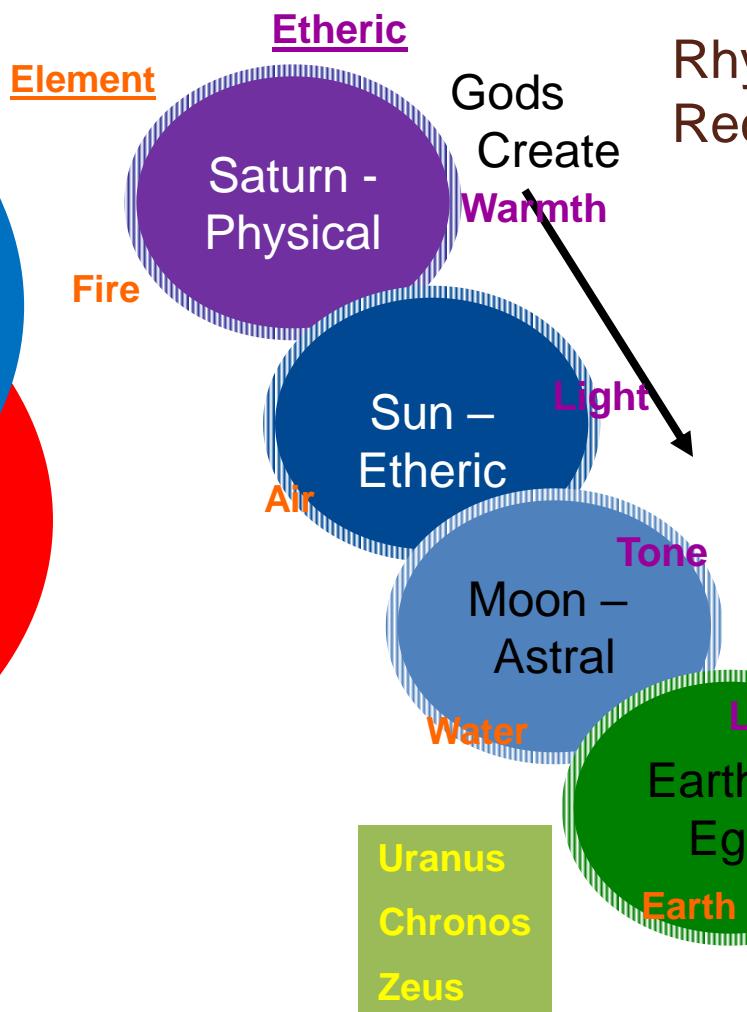
Just as there were once beings who, out of their own rhythms, made the sun, moon and earth move, man will at some future time **transfer his rhythms to the world**, when he has reached the stage of divinity.

Stellar Evolution & Metallicity



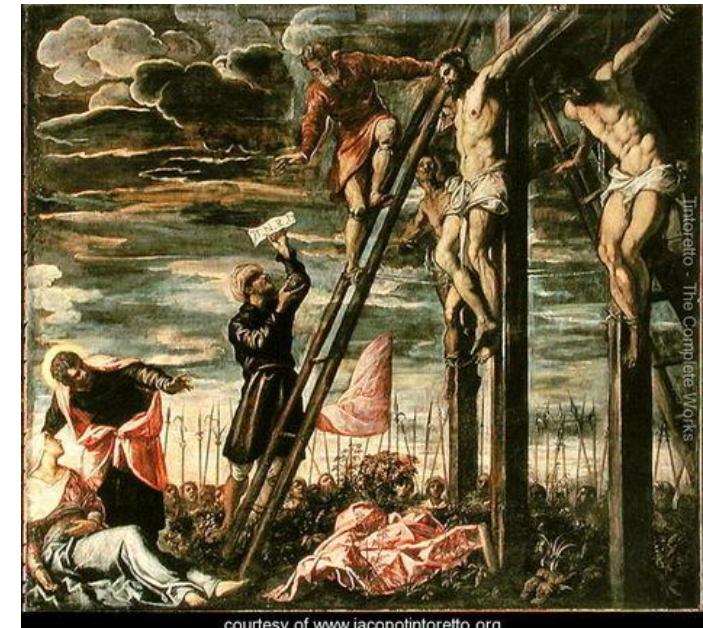
Metallicity: 3 prior solar systems to have heavy metals.
See <http://www.eso.org/public/usa/news/eso0129/>

Cosmic Evolution of the Human Condition



Rhythm set & harmonized in each stage
Recapitulations

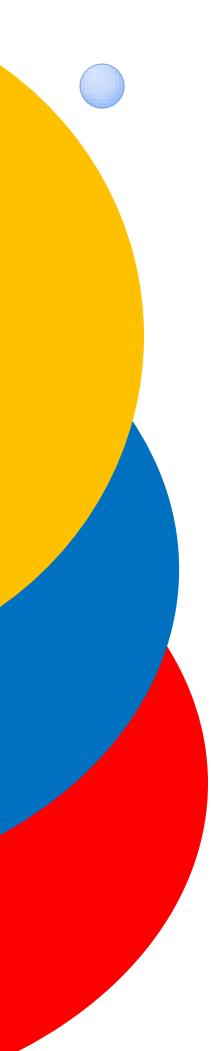
What did
mankind
look like?



courtesy of www.jacopointoretto.org

What will
mankind
look like?

1. Lucifer
2. Christ
3. Ahriman



The Divine-Spiritual's Work in Evolution

1. Through its own and inmost *Being*
2. Through the *Manifestation* of this Being
3. Through the *Active Working*, when the being withdraws from the Manifestation
4. Through the *Accomplished Work* when in the outwardly apparent Universe no longer the-Divine-itself but only the-forms-of-the-Divine are there

Today, mankind can **unite himself either with the powers of Christ** or with the dominions of Ahriman who will to **radiate the cosmic intelligence** that they have absorbed through the whole of the new **Ahrimanized Cosmos** in which they want for mankind to live on

R. Steiner, Michael Mystery, *The Activity of Michael and the Future of Mankind*

The Cosmos

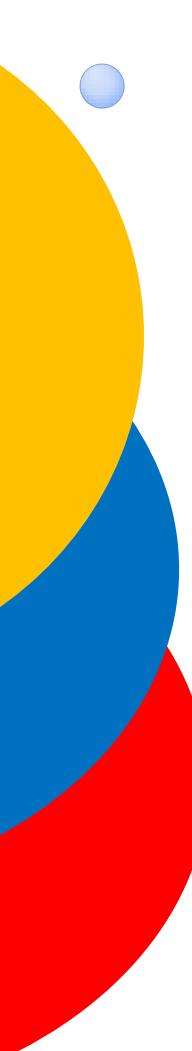
The Stars once spoke to Man.
It is World-destiny
That they are silent now.
To be aware of the silence
Can become pain for earthly Man.

But in the deepening silence
There grows and ripens
What Man speaks to the Stars.
To be aware of the speaking
Can become strength for Spirit-Man.



What is Your Picture of the Future (2050 →)



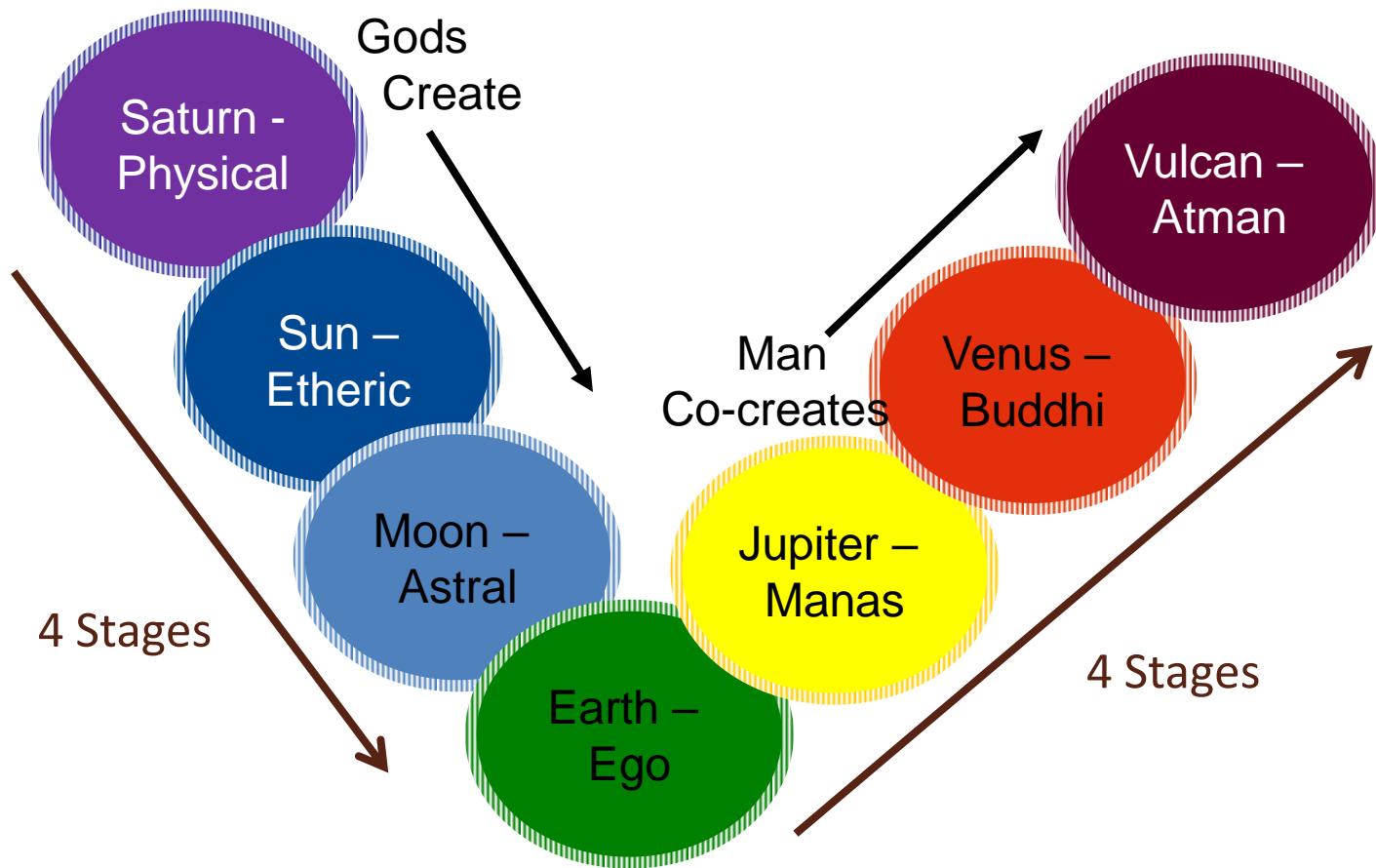


No Going Back – Forward Only

- “Man had to **get away from old rhythm**; his progress depends on this
- When certain prophets go around today preaching ‘**Back to Nature**’, they want to bring life into reverse instead of helping it forward
 - All this chatter about returning to nature contains no understanding of real evolution
 - When a movement today recommends people to eat certain foods only at certain times of the year because nature herself indicates this by making foods grow only at certain times, this is the abstract talk of the amateur
- The essential thing about evolution is that man grows more and more **independent of outer rhythm**
 - But we must not lose **the ground from under our feet**
 - It is not the best thing for man's progress and salvation to return to the old rhythm and ask himself how he should live in harmony with the four quarters of the moon
 - For it was essential in olden times for man to be like an impress of the cosmos, but it is important too that **man should not believe he can live without rhythm**”

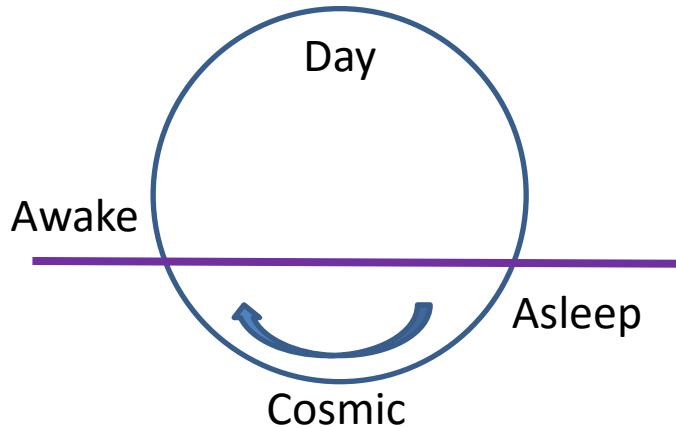
R. Steiner, *The Being of Man and His Future Evolution*, Lecture 5, 12Jan1909, GA 107

7 Stages of Human Condition



Rhythm and the Four-fold Man

- Physical body – oldest, most perfected body
- Etheric body – next oldest, four temperaments, memory
- Astral body – share astrality with animals, Lucifer active
- Ego body – moral sphere



“Freedom lies in having preserved one’s inner rhythm while severing oneself from external rhythm”

Body Rhythms:

- Ego: 24 hours
- Astral: 7 days
- Etheric: ~7x4 days (moon)
 - Female < male (ave 29.53 d)
- Physical: F/MxEtheric
 - F:10 (280 d), M: 12x31=372 d
- Evolution → Emancipation
 - Begins in Atlantean period

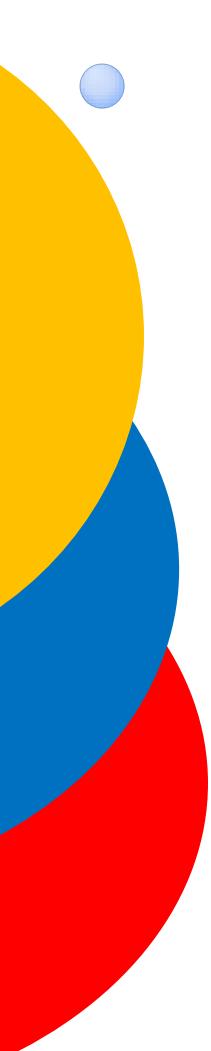
R. Steiner, *The Being of Man and His Future Evolution*, 12Jan1909



Rhythm in the Near Future

- His inner life must become rhythmic
 - Just as his inner life was formed from outside inwards he must now **create rhythm from inside outwards**; that is essential
 - Just as rhythm created the cosmos, **man has to permeate himself with a new rhythm** if he wants to share in the creating of a new cosmos
 - It is characteristic of our age that it has **lost the old, external rhythm** and has not yet attained a new inner one
- **Man has outgrown nature** — if we call the outer expression of spirit ‘nature’ — **but has not yet grown into the spirit**
 - He is still floundering today between nature and spirit

R. Steiner, *The Being of Man and His Future Evolution*, Lecture 5, 12Jan1909, GA 107

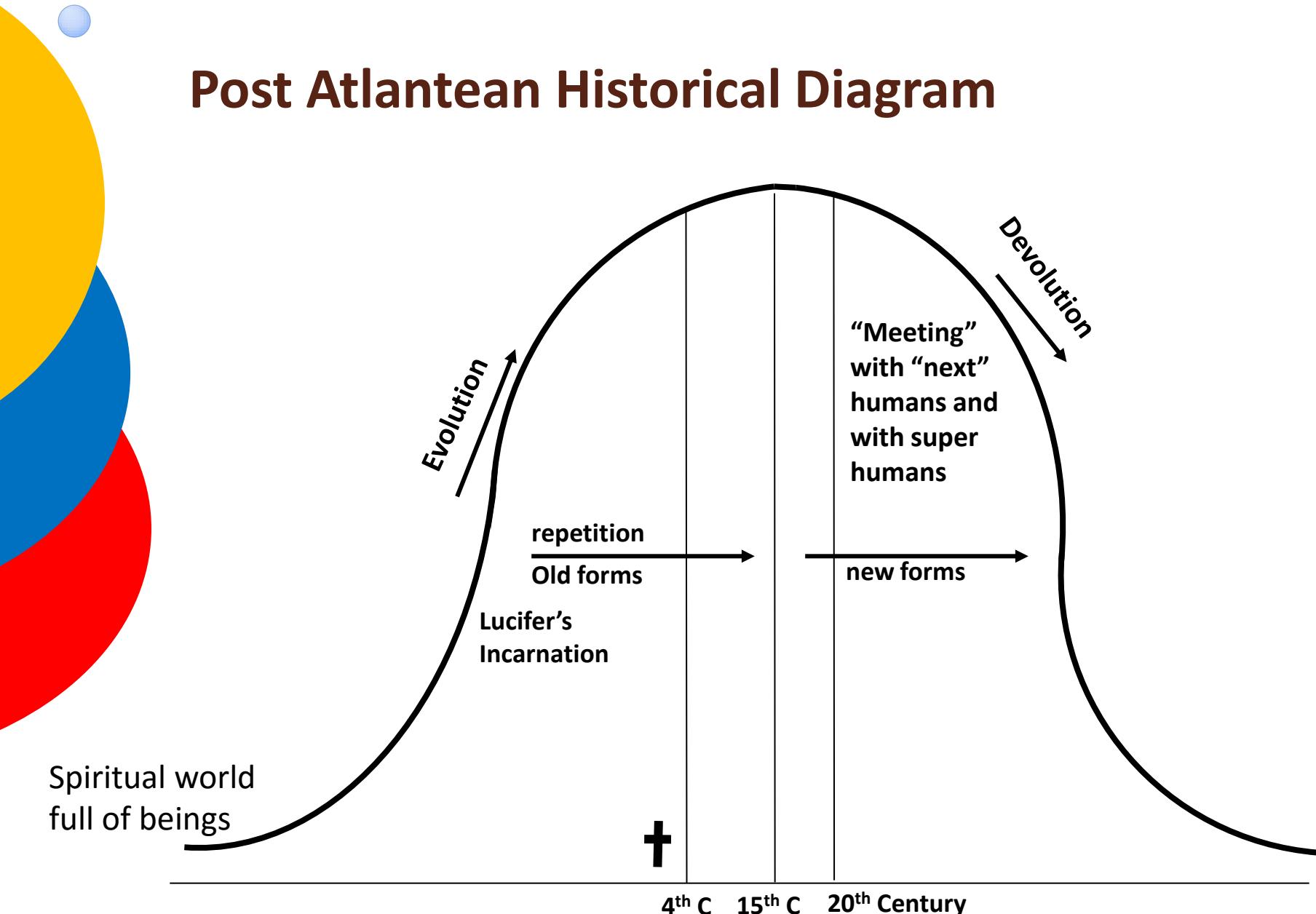


Challenge of Our CURRENT Times

- Consciousness Soul Age began in the 15th Century
 - But period until 1840 essentially a preparation
 - Initial intensification of Intellectual Soul
 - Done by Michael as a disturbance to cosmic balance
- Three occultisms must come to be
 1. Eugenics (east)
 2. Hygienic (mid)
 3. **Mechanical (west – based on vibrations)**
- Iron necessity of Ahriman's incarnation
- Ayatollah Khomeini's claim "America is the Great Satan"



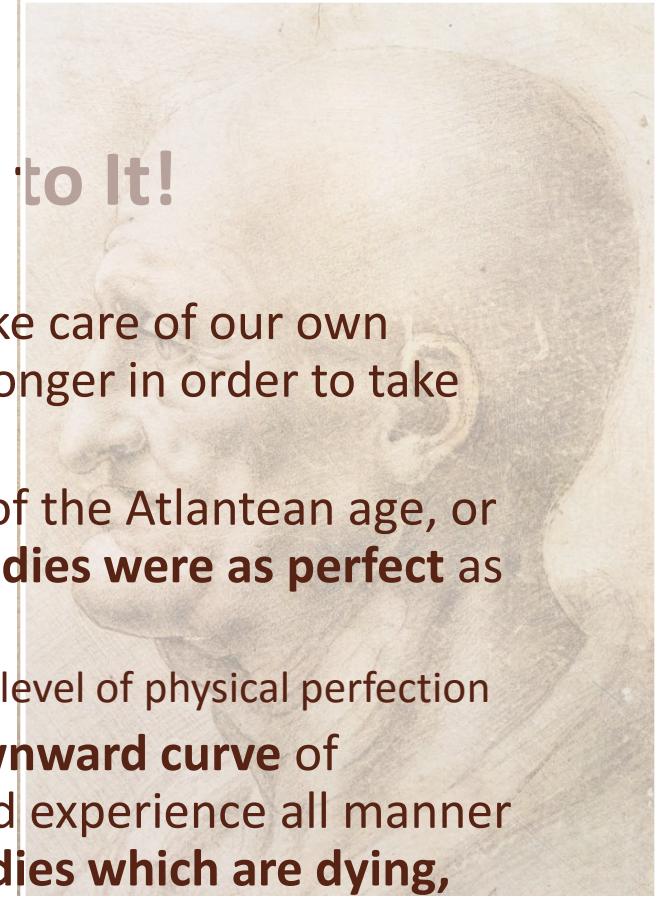
Post Atlantean Historical Diagram



Now in Devolution – Get Used to It!

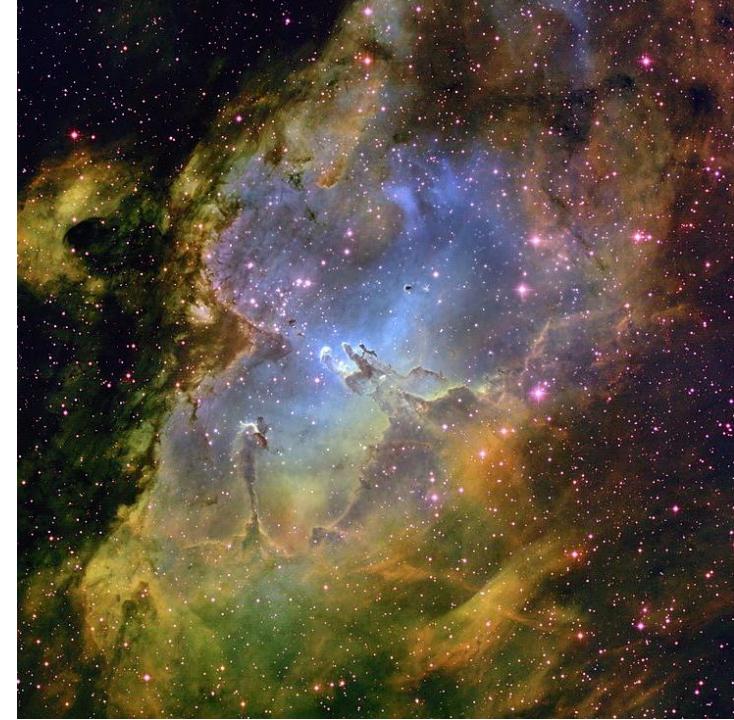
- “We really are no longer in this world to take care of our own organization; we do still incarnate, but no longer in order to take care of our own organization
- This organization evolved until the middle of the Atlantean age, or until ancient **Greek times** when, **human bodies were as perfect** as they can be during time spent on earth
 - Not until Jupiter will humans achieve a higher level of physical perfection
- Now, we are really here to be part of a **downward curve** of evolution, to incarnate in order to learn and experience all manner of things by the very fact that we are in **bodies which are dying, increasingly crumbling and withering** away
- The fact is that anything we **inwardly develop** and inwardly are, will **no longer** become **part of the outer physical body** to the same extent as it did in the past
 - The Exusiai are moving on ...
- **Consequence of this will be all kinds of changes in development”**

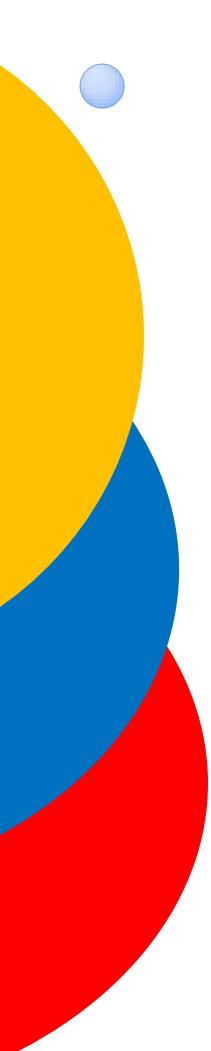
R. Steiner, *Fall of the Spirits of Darkness*, lecture 5, 7Oct1917, GA 177



Separations

- Once there was a “nebula”
 - Full of spiritual beings
- Sun and Earth separation
 - “Finer” material went with the Sun
 - Most Elohim went with the Sun
- Earth and Moon separation
 - Isotope ratios identical (indicates same origin)
 - “Apollo lunar samples carried an isotopic signature identical to Earth rocks and different from other Solar system bodies.”
 - https://en.wikipedia.org/wiki/Origin_of_the_Moon
 - Water in lunar magma is 'indistinguishable' from Earth's
 - But moon is more “baked”, more hardened
 - Pacific ocean basin (?)
 - Jehovah, an Elohim (Exusiai) went with the moon

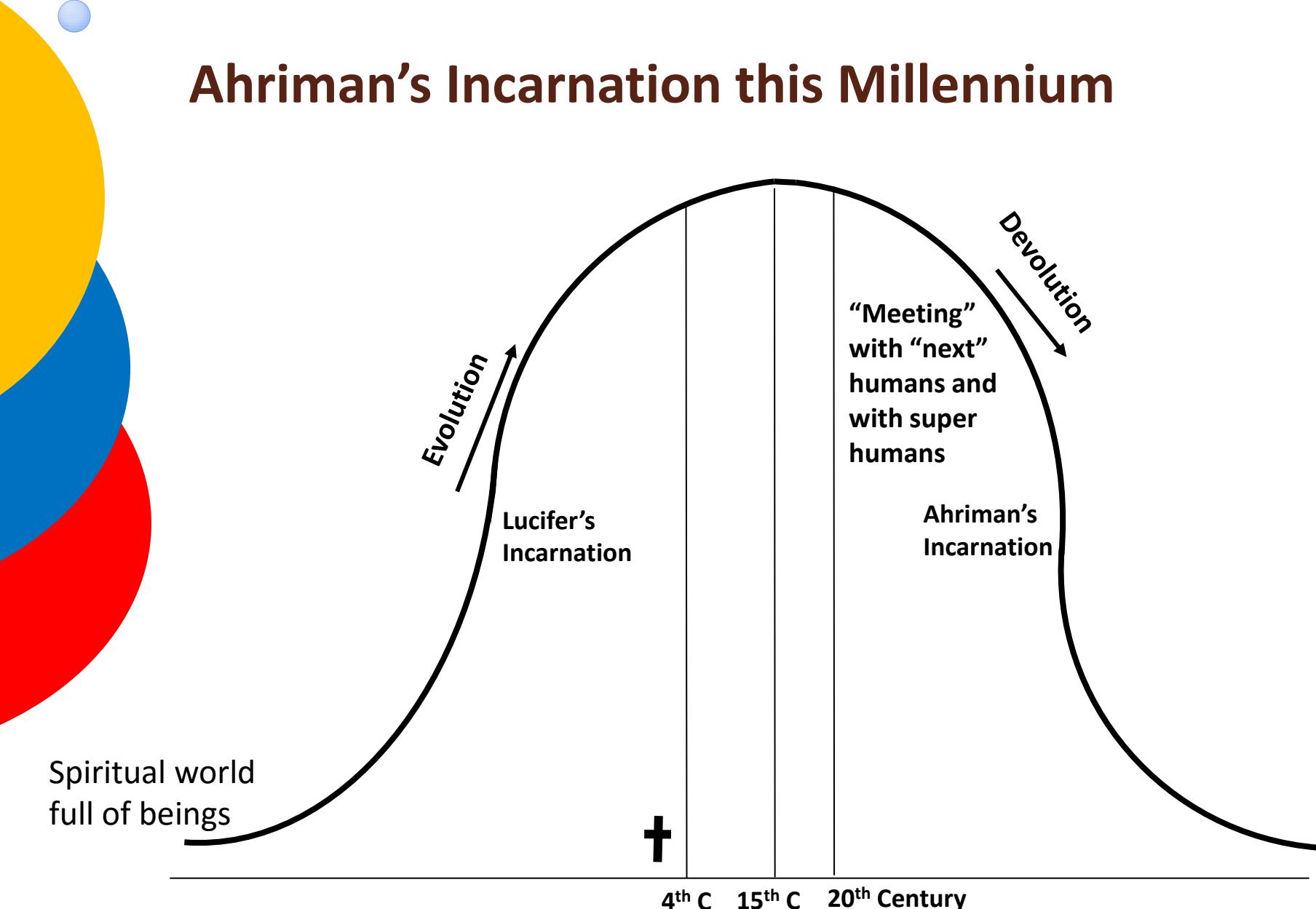




Incarnation of Lucifer

- Imagine you lived in China ~3000 BCE
 - The incarnation of Lucifer is imminent, you know it is coming
 - How do you approach this?
- Lucifer, the light bearer, the Spirit of Venus
 - *Man in the Light of Occultism, Theosophy and Philosophy*, GA137, Christiania, 12th June, 1912
 - Venus as the star of those unfinished from Old Moon
 - On Old Sun, Christ and Lucifer were ‘brothers’
- Now, how do we prepare for Ahriman’s incarnation?

Ahriman's Incarnation this Millennium

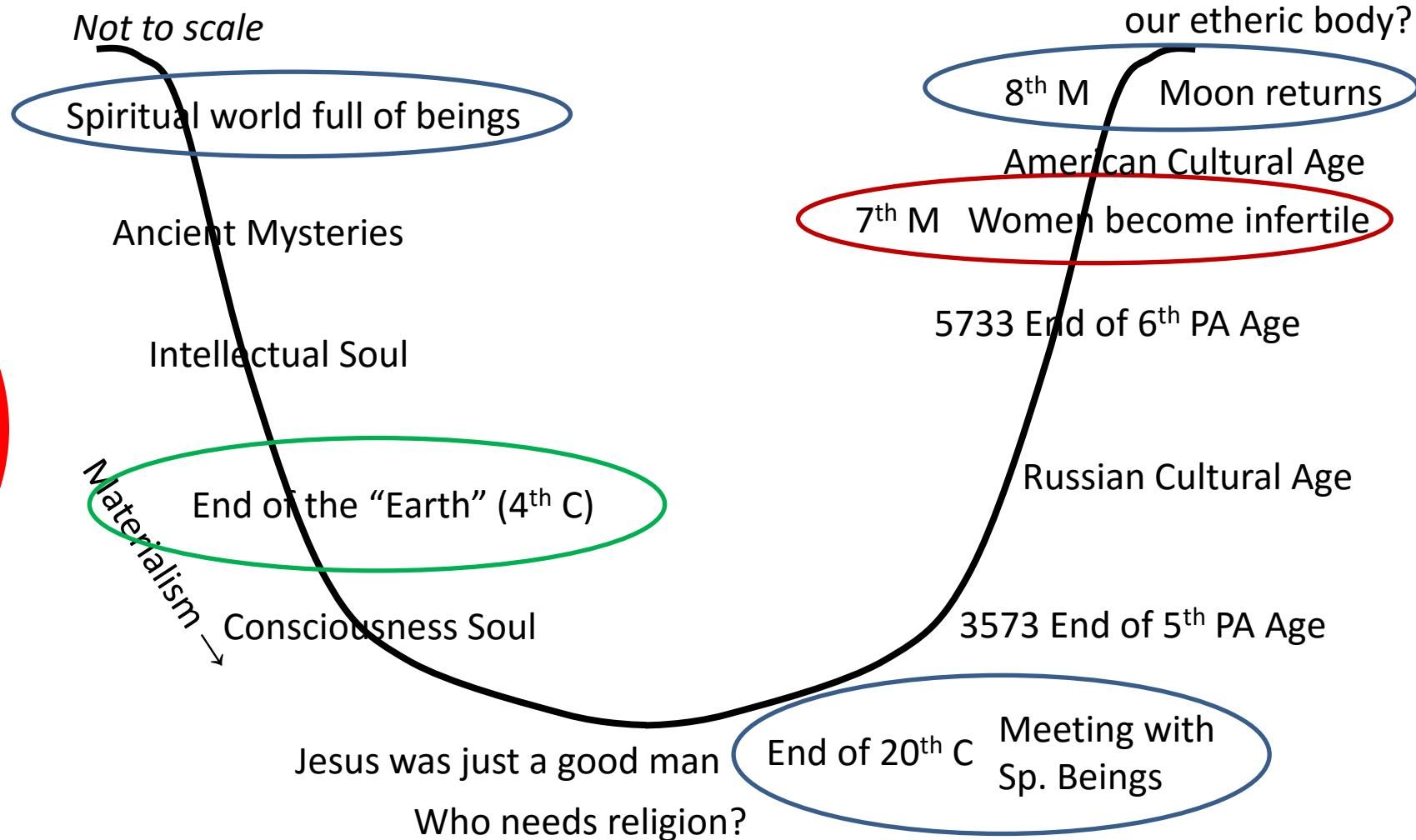


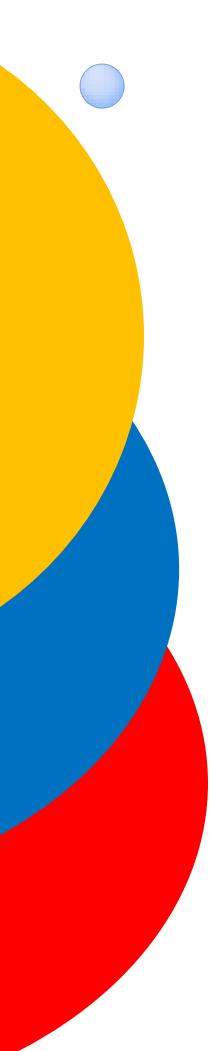
The Changing of the Guard

- Spirits of Form led until 15th Century
- Now Spirits of Personality begin to ascend to Exusiai level
- They do not intercede but wait for us to rise to them
- In the 8th M, the Archai will achieve Atma



Anthroposophical Bathtub of History

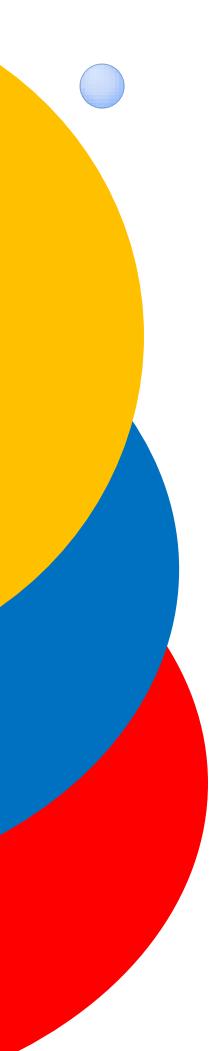




Ending of Physical Bodies

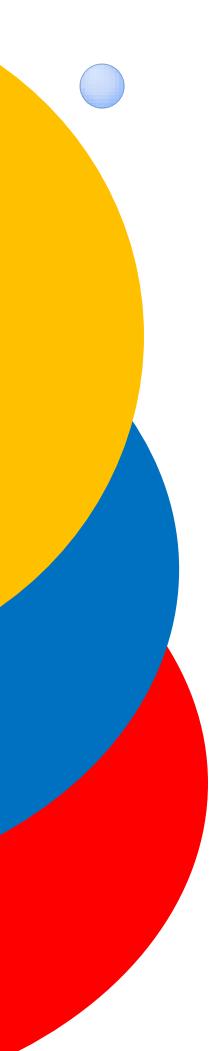
- “In a time not all that far ahead, possibly as early as the seventh millennium, all women will be infertile on earth
 - Due, in part, to the **withering and crumbling of human bodies**
 - The fact is that women will no longer be able to have children, even before the earth has gone through all its stages
- If the **relationships** that can only come into their own between the **inner life & the physical body** were to continue unchanged, people would ***no longer find anything to do on earth***
 - Human beings therefore have to find a different way of relating to earthly existence – the final stages of earth evolution will make it necessary for them to do without physical bodies and yet be present on earth”
- AL: Thus, the relationship between the inner life & the physical body must change, must find new *rhythm*-connection

R. Steiner, *Fall of the Spirits of Darkness*, lecture 5, 7Oct1917, GA 177



No Worries – This is a Long Way Off, Right?

- How many more incarnations left (*to resolve my karma*)?
 - 100s?
 - 1000s? $((6400-2015) / 2160) * 3 = 6 !$
- Now non-human beings are descending (since 1880) to earth from other planets
 - For example: the Great Teachers of Humanity from the Moon
 - They depend on entering into human **relationship** to further their own existence – found in one's **inner life**
 - Spiritual Science arises through the help of these beings
- More and more of such beings will move among us
 - We need to understand them, they will aid us
 - Transform our 'shadowy' intellect to living thinking → Imagination



Procreation in 6th and 7th PA Ages

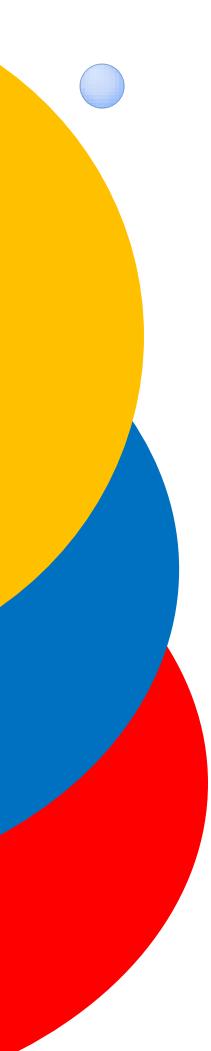
- In the sixth Post-Atlantean Age of civilization, the human fertility which depends on the powers of light for its impulses will gradually come to an end
 - The **powers of darkness will have to intervene** so that the affair may continue for a time
- We know the seeds for the **sixth Post-Atlantean Age** of civilization lie in the **East of Europe**
 - The East of Europe will develop powerful tendencies which do not allow physical human reproduction to continue beyond the sixth period of civilization but, instead, let the earth enter into a form of **existence in soul and spirit**
- The other impulses for the **seventh Post-Atlantean Age** of civilization, in which procreation will be guided by impulses from the **cast-down Angels**, will come from **America**
 - What kind of bodies are these?

R. Steiner, *Fall of the Spirits of Darkness*, lecture 14, 28Oct1917, GA 177

What Will Life Be Like in the 8th Millenium?

- Women will already be infertile
 - Without procreation, will today's physical body cease to exist?
 - Or will all babies be “test tube” babies?
- Moon will recombine with Earth
 - Forces and beings
- Our thoughts today become the earth's new reality
 - What has no reality today will become reality then
 - Because we can think only of the material:
 - **New beings between mineral and plant kingdoms**
 - Resemble automatons
 - Over abundant intelligence
 - Connected network like spiders





What Will Replace Our Physical Bodies?

- 7th Millennium: women become infertile
- How will we be able to experience the physical world?
- Work out our karma?
- It was Porn Sites that gave birth to e-commerce
- It was a betrayal that enabled the Mystery of Golgotha
- Don't we need to do Avatar test runs?
- Are we preparing bodies for those who will be human on Jupiter?



Remember:

1. Polarities
2. What it is NOT

MAN AND MACHINES:

Can We Become Friends?

Aren't they the enemy?

Will We Merge?

Will We Become Their Angels?

Is it Wrong to Couple Man to Machine?

Improving Prostheses

- From Captain Hook to ...
- Helping the maimed to live
 - Is this not the Christian thing?
 - Or is it one's karma (so do nothing)?
- Built in robotics – better than bio?
- Is this a slippery slope?
 - Temptation to change natural (weaker) for artificial?
 - Example: plastic surgery
 - How does the human soul & spirit deal with mechanical limbs?
 - Can Atma still be attained?
 - What does it mean for future generations?



Bionic Eye

- Allen Zderad was blind 20 yrs.
- Given a bionic eye implant
 - Created by Second Sight, Inc.
- Mayo Clinic (Raymond Iezzi)
- Works by bypassing his damaged retina and sending signals directly to the optic nerve
- A small chip was attached to the back of the eye with multiple electrodes offering 60 points of stimulation
- Future version could have 1000 points of stimulation
- Source: <http://www.medicalnewstoday.com/articles/289863.php>



Bionic Limbs

- Three Austrians have replaced injured hands with bionic ones that they can control using nerves and muscles transplanted into their arms from their legs
- His son, then 4, said proudly, "**my father's a robot**"
- Transplanted arm (from cadaver) would have meant taking anti-rejection drugs for the rest of their lives
- 98% of amputees report **phantom sensations**
 - Also see [mirror-touch synesthesia](#)
- **Isn't this very expensive? – only for the rich?**



Bionics Becoming Affordable

- Made with \$2000 3D Printer and inexpensive materials
- More: <https://www.youtube.com/watch?v=A6isKsPWubA>



Linking the Brain to Mechanical Arms



Link to [video](#)

How it Works

1. Record brain activity
 2. Set brain probes
 3. Train brain to use
 - Jan Scheurmann watched animations of movements and imagined them
 - The signals her brain sends to calibrate the system are recorded
 - Then "reading her thoughts" allows proper placement of probes she uses to move the hand
- Source: <http://www.medicalnewstoday.com/articles/287120.php>
 - Can the human change to accommodate machines?
 - Does neuro-plasticity play a role?



Neuroplasticity of the Brain

- Refers to changes in neural pathways and synapses due to changes in behavior, environment, neural processes, thinking, emotions, as well as changes resulting from bodily injury
- Known in vision improvements
- Leads to human trials on a broad scale for motor cortical implants to help quadriplegic or locked-in patients perform tasks and communicate with the outside world
- Will this allow for deeper Man-Machine interfacing?



Recent News (May 21, 2015)

- Erik Sorto, paralyzed a decade, was recently able to pick up a beer and drink it thanks to a robotic arm.
- “He's painted pictures, made smoothies.
- It's a very good thing for our patients who are paralyzed to see such tech wizardry.”
- Next: ALS, stroke victims
- [Upright Paraplegics Show Improved Health Stats](#)
- [Wearable Robots on the Rise to Help Paraplegics Walk](#)



Investments Now Pouring In

- “I'm getting quite a few questions lately regarding one of my favorite companies, **Ekso Bionics Holdings Inc.**(OTC:EKSO). As you know, the company is tied into one of the most dynamic Total Wealth Trends of all - and potentially the most profitable, too - Human Augmentation. So I thought we'd revisit EKSO and, in the process, update some of the interesting stuff that's going on.”
- www.totalwealthresearch.com

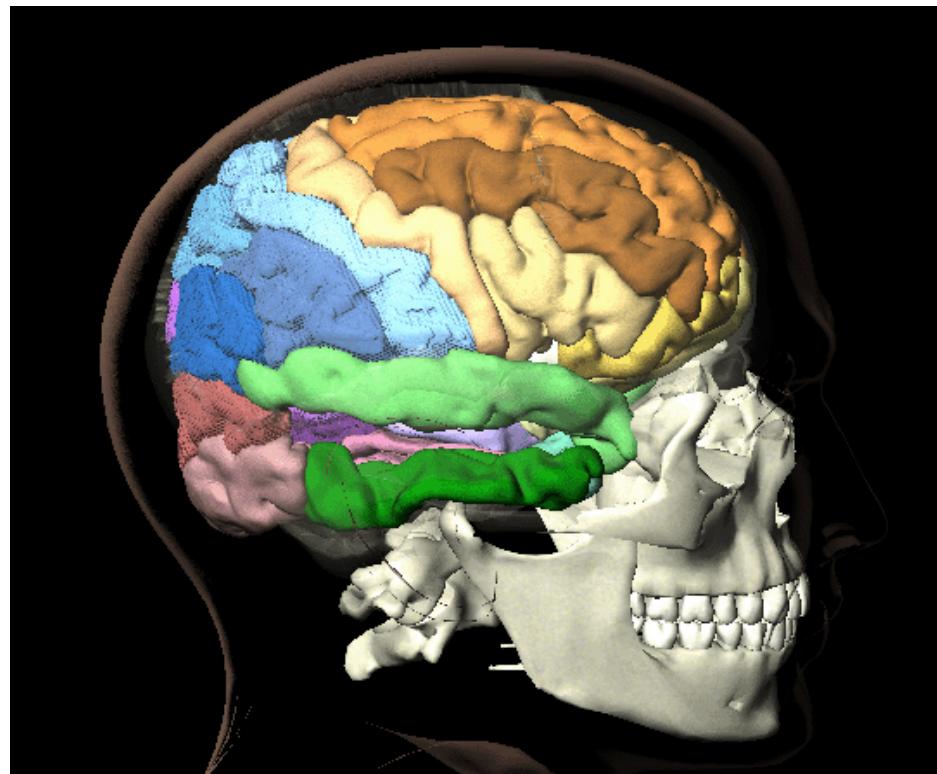


<http://eksobionics.com/ekso>

Leading to Brain Augmentation

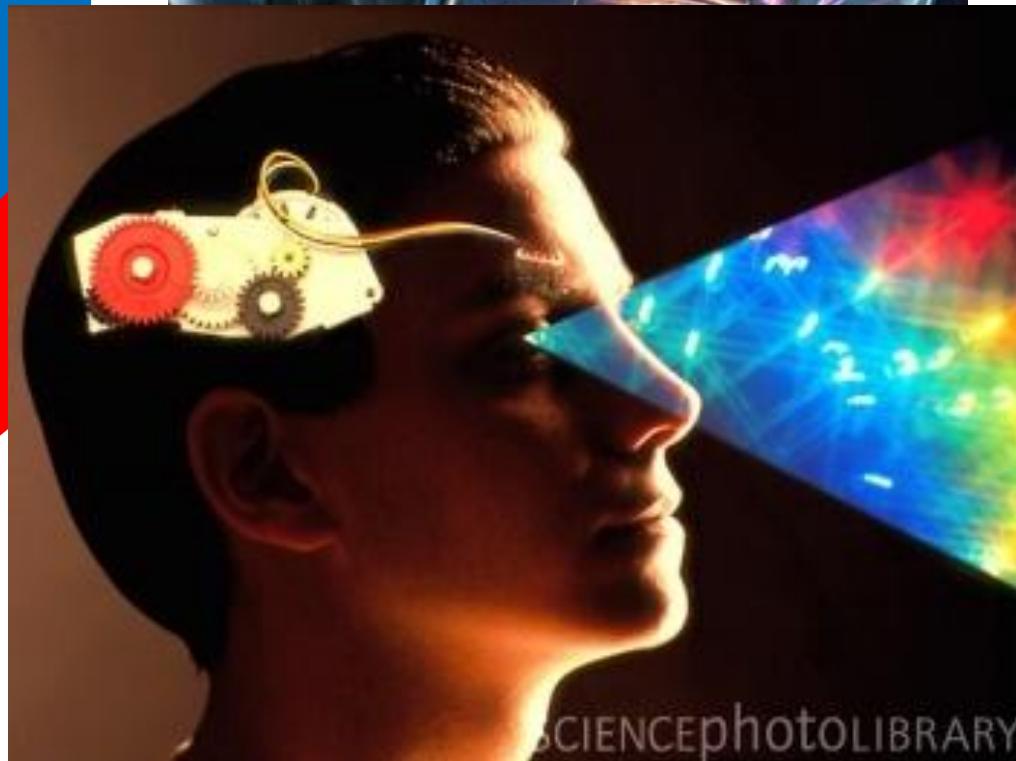
Embed

- GPS & RFID
- Wireless internet
- iPad functionality
 - Voice recognition
 - Connect vis-cortex
- Health sensors
- Psychological guides
- Might these be embedded at birth?



Virtual Reality

Imitation of the Etheric Realm



- Coming when oil runs out
 - Work from home
 - Over **Ether**-net
- Wireless sensory augmentation
 - Implantation at or even before birth
 - It will become the norm
 - Visual & audio easy – how about touch?
- A New Maya – a second “reality”
 - Mental context switch
 - Need for a threshold? Nanny or Guardian?
 - Much easier entry than to spiritual world

Are We Already Cyborgs?

- Definition of Cyborg: *an organism to which exogenous components have been added for the purpose of adapting to new environments*
- Are children prepared?
- Extension of self
 - Mental
 - Also Physical
- Second virtual self
 - There 24 hr/day
 - Maintain
 - Attachment of 2nd being?
- Time & space
 - Compressed
 - Relaxed



Flickr: futurestreet

Moral Questions



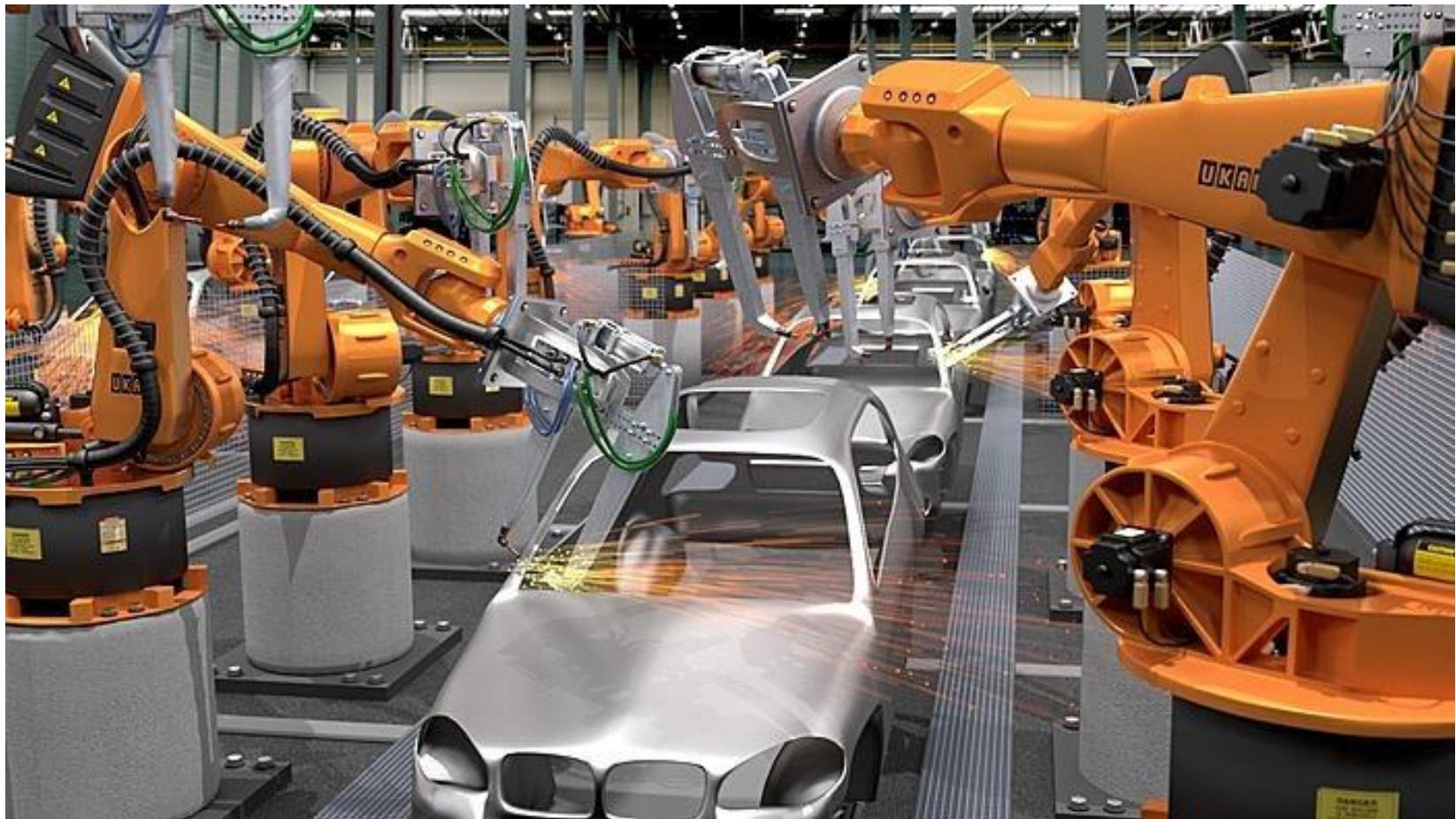
- If someone is suffering, what do we do?
 - Christian impulse
- Free someone in a biological prison?
 - Let them live a near-normal life
- Is there a role for illness? Suffering?
 - Who can judge if someone suffering should suffer?
 - If we can help overcome, shouldn't we? Karma?
 - Will illness itself evolve?
- Do we know what we are doing?
 - Risk/Benefit “equation” enough?

Machines as Robots

- Hephaestus's automatons
- www.worldrobotics.org
- www.ifr.org (international federation of robotics)
- [SPARC](#)
- [euRobotics](#)
 - A robot in every home
- National Institute of [Advanced Industrial Science and Technology](#)
- www.ParisTechReview.com

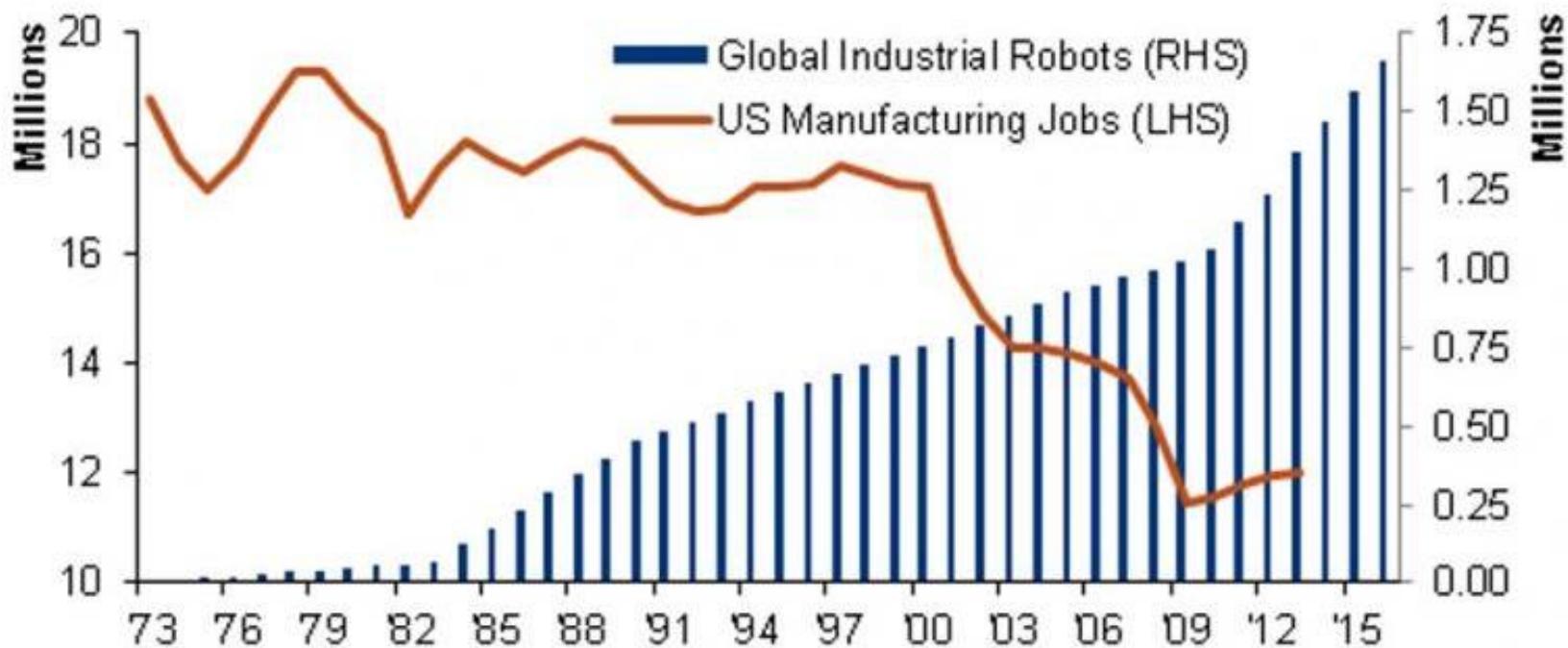


Robots in Manufacturing



Japanese automotive industry now has 1,520 industrial robots per 10,000 employees

Impact on Manufacturing Jobs



- No job is immune from impact: professionals, healthcare, design, art
 - Except, maybe, the performing arts

What sort of jobs will be left? Professional only?

Robotic Intelligence Controlling Machines

- Cars
- Trains
- Airplanes
- Space ships
- Mines
- Hazard cleanup
- Elder care
- Day care



Robots in Home Care

To Stepford Wives [[film](#)]



To shopping and protecting



What is **missing** in robots?

- “Human” experience?
- Soul qualities?
- Artificial Soul possible?

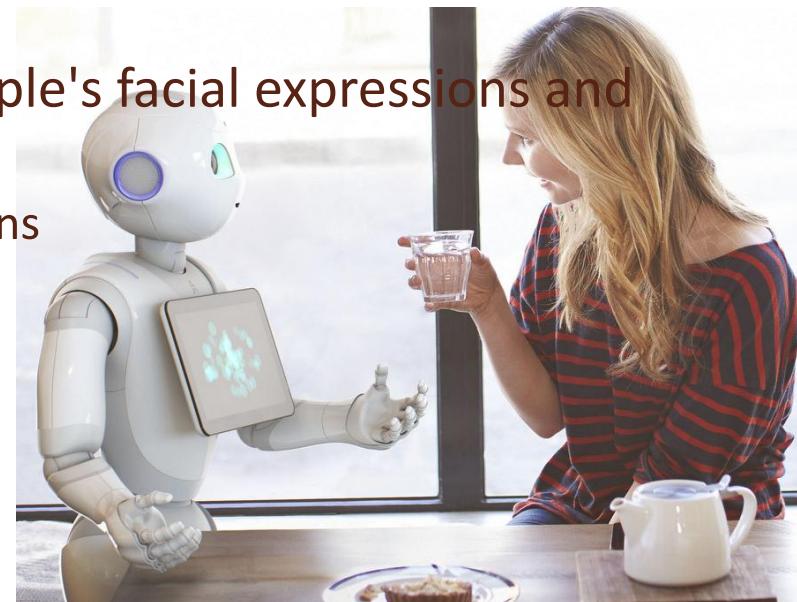
“Humanizing Technology”: The Family Robot

- <https://www.youtube.com/embed/3N1Q8oFpX1Y>



Add Some Pepper to Your Soul Life

- Emotion recognition functions: “able to read emotions”
 - These emotion functions are modeled on the human release of hormones in response to stimuli absorbed by the five senses
- Autonomous emotion generator for its own (artificial) emotions
 - by processing information from his cameras, touch sensors, accelerometer and other sensors within his “endocrine-type multi-layer neural network”
- Emotions are influenced by people's facial expressions and words, as well as surroundings
 - Affects Pepper's words and actions
 - Happy when praised
 - Scared when the lights go down
 - Raises voice or sighs



<https://www.aldebaran.com/en/a-robots/who-is-pepper>

Robots with AI for Children

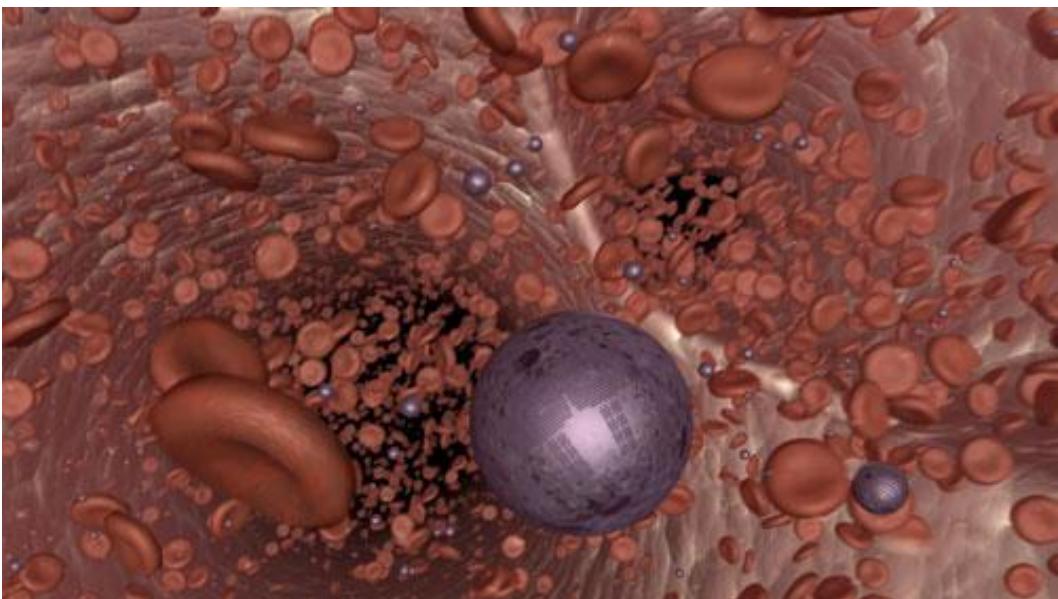
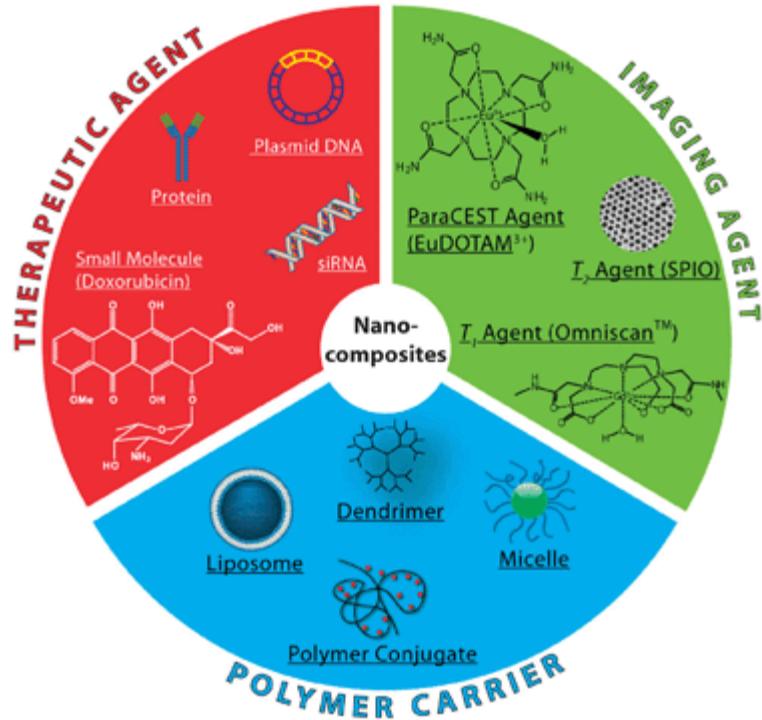
- AI with speech recognition
- “Learns”
- Names of pets, siblings, friends
 - What a child’s interests are
 - If grandparents are still living
 - Starts sales in time for Xmas



Mark Lennihan/AP Photo

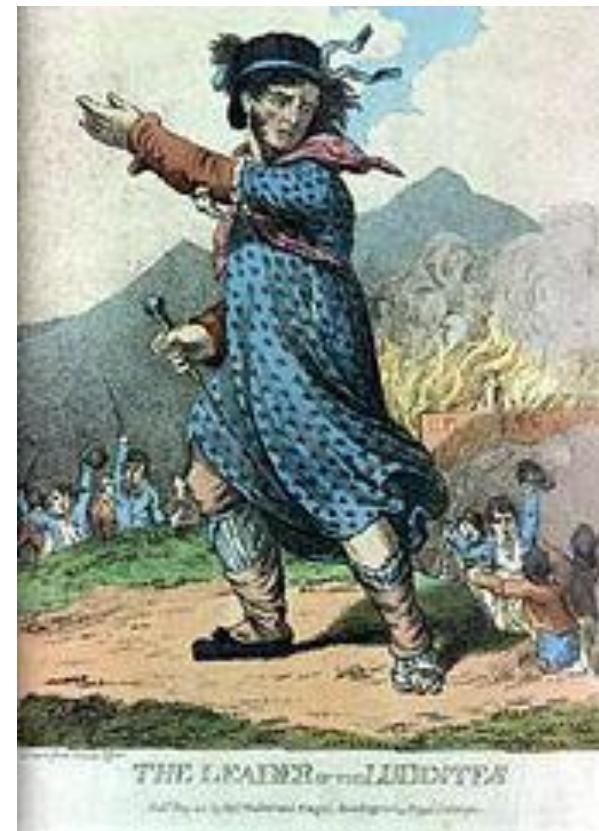
Inside-the-Body Nanobots

- Body function enhancers
 - Phlesch bubble, stores 10X O²
- Medical products
 - Treat incurable diseases
 - Cancer search and destroy
 - Internal plumber
 - Retroviral – DNA
 - Organ rebuild
 - Vanity rebuild
 - Sensors
 - Target delivery



It's Not the What but the How

- K-8 Waldorf Schools “reject” TV and Computers
 - Does this mean Anthroposophists = Luddites?
 - How about above grade 8?
- John Davy’s question about vocation
- What does it mean to be a modern day Rosicrucian?
- Who will make the decisions regarding **the how?** Materialists?



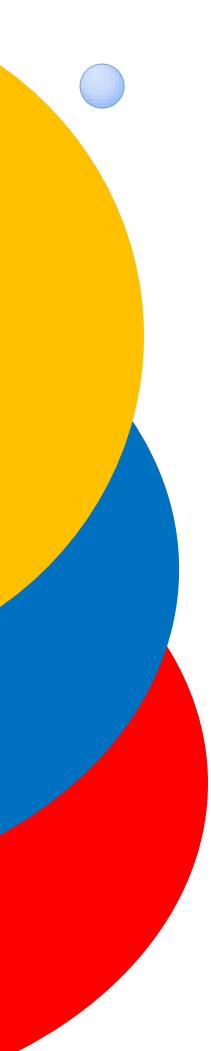
Waldorf School Robotics

Huh? – Waldorf School Robotics?

Congratulate the PolyGnomes!

- Green Meadow's robotics team
 - Coaches: James Madsen & Lisa Krogh
- Results:
 1. Won 50 of 58 matches
 2. Hold several tournament scoring records
 3. Won all qualifying tournament championships
 4. Finalists in regional championships
 5. Received two prestigious judged prizes:
 - PTC Robot Design Award
 - Rockwell Collins Innovate Award
 6. #2 at Eastern Super Regional in Scranton, PA
 - Against 72 best teams on the east coast, from Virginia to Maine
 - Beat elite schools specializing in STEM and teams heavily supported by technology companies
 7. #5 at World Championship in Saint Louis, MO April 22-25
 - Top 2% of teams in the country, plus 30 international teams
 - 4500 teams from around the world
- This is what is needed for the mankind's evolution





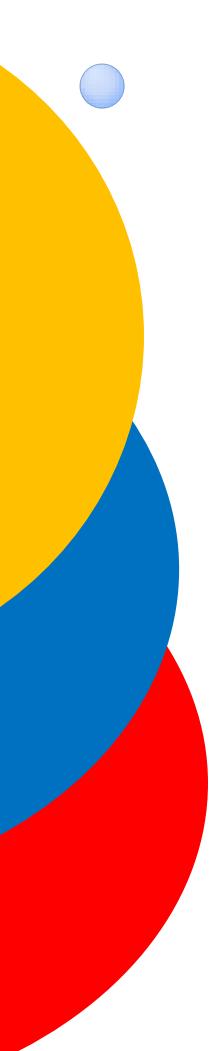
Moral Questions



- Are you comfortable with AI handling your financial (retirement) accounts?
- Can you accept the diagnosis and prescriptions from an AI-doctor?
- A future transportation system likely will be handled entirely by AI and robots – would you feel safe being picked up and driven to work everyday by a robot?
- Could a robot be your pet? Your best buddy?
- Could you learn eurythmy from a robot?
- Could you work for a robot?



ARTIFICIAL INTELLIGENCE AND HUMAN INTELLIGENCE



Do Students Using Computers Learn More?

This [story](#) also appeared in U.S. News & World Report

- OECD [Organization for Economic Cooperation and Development] found that students who used computers more at school had both *lower* reading and *lower* math scores
 - Measured by PISA or Program for International Student Assessment
 - Looked at computer use among 15-year-olds across 31 nations
 - The study, published September 15, 2015, was actually conducted back in 2012, when the average student across the world used computers less
- “Those that use the Internet every day do the worst,” said Andreas Schleicher, OECD Director for Education and Skills
- Those who used computers more generally scored worse

Artificial intelligence: Turning our understanding of the mind right side up

Join CIFAR for a remarkable evening that will challenge your views on the divide between human and machine.



CIFAR Advisor Daniel Dennett, one of the most influential philosophers of our time, will share his new thinking about the nature of intelligence and human consciousness. He sees the first decades of artificial intelligence research as brave, brilliant, and largely wrong. But having climbed that ladder, he believes a new vantage point can reveal better ways of making intelligent computers and, ultimately, change our understanding of the human brain.

CIFAR Distinguished Fellow Geoffrey Hinton, the world's leading authority on a branch of artificial intelligence known as deep learning, will join Dennett on stage for a public conversation on how close we are to replicating human consciousness in machines and what this means for our understanding of cognitive science.

The evening will include a special tribute to Richard W. Ivey, former Chair of the CIFAR Board for his years of service to CIFAR.

Date: Wednesday, October 21, 2015

Time: 6:00 PM - 9:15 PM

Address:

Omni King Edward Hotel, Sovereign Ballroom
37 King Street East
Toronto, ON M5C 1E9

[Click here to reserve your tickets by October 15, 2015](#)

\$120 per ticket

\$80 Knowledge Circle members

Upcoming Events

Wednesday, 30 September 2015

Doubt everything: How science is transforming the way we think and the world we live in.

CIFAR Massey Talk

[Event details](#)

Wednesday, 21 October 2015

Artificial intelligence: Turning our understanding of the mind right side up

Artificial intelligence: Turning our understanding of the mind right side up

[Event details](#)

Tuesday, 3 November 2015

Keynote speaker Eldar Shafir on scarcity at Prosper Canada's ABLE conference

Keynote speaker Eldar Shafir on scarcity at Prosper Canada's ABLE conference

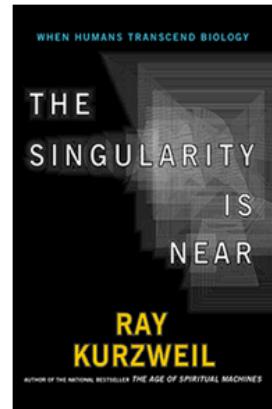
[Event details](#)

News & Events

Latest Headlines

2045 Initiative

[http://www.ted.com/talks/ray_kurzweil
on how technology will transform us](http://www.ted.com/talks/ray_kurzweil_on_how_technology_will_transform_us)



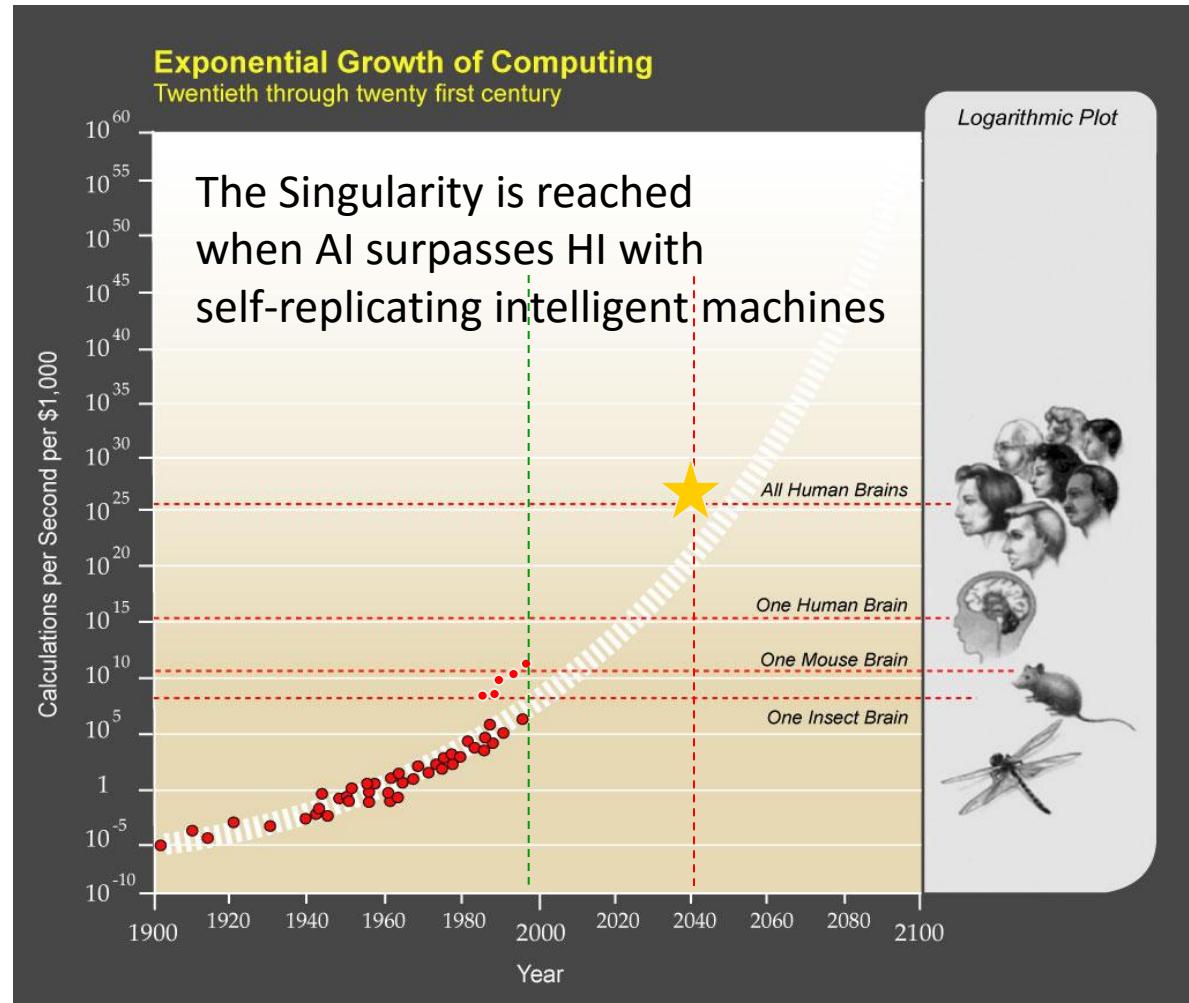
- Founded February 2011 by **Russian** entrepreneur Dmitry Itskov
- Feeds off of Ray Kurzweil's *Singularity*
- “Initiative aims to create technologies **enabling the transfer of an individual’s personality to a more advanced non-biological carrier**, and extending life, including to the point of immortality”
- “An international research center where leading scientists are engaged in research and development in the fields of **anthropomorphic robotics**, living systems modeling, plus brain and consciousness modeling with the goal of transferring one’s individual consciousness to an artificial carrier and achieving **cybernetic immortality**”
 - Fields of neural interfaces, robotics, artificial organs and systems

When Silicon Beings Surpass Carbon

\$2000 computer, 2020 = human brain, 2045 = Σ all human

Law of
Accelerating
Returns:
technological
change is
exponential as is
the change in
the *rate* of
change

Blue Brain Project
Mimic the Brain
www.eetimes.com, May 28, 2008



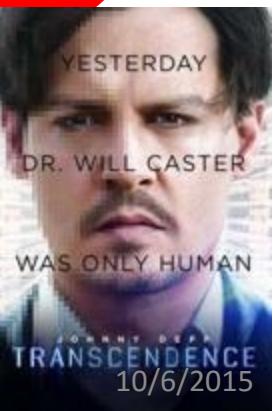
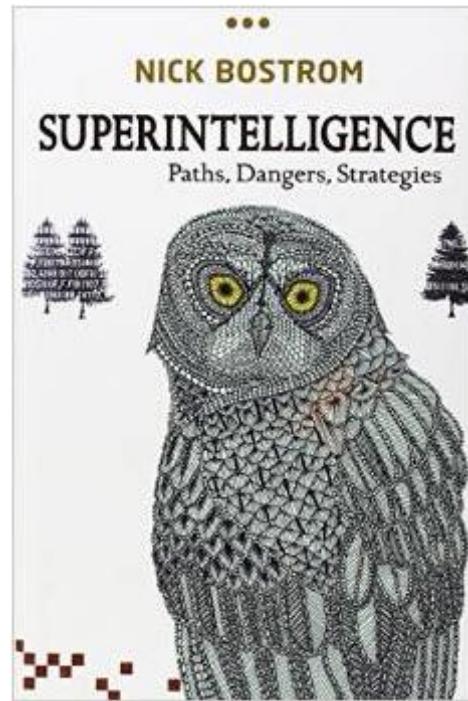
2045 Initiative's Timeline

- **2015-2020 Affordable android "avatars" with "brain-computer" interface**
 - Work in dangerous environments, perform rescue operations, travel in extremes
 - Avatar rehab of disabled patients, prosthetic limbs, recover lost senses
- **2020-2025 Autonomous life-support system linking brain to a robot**
 - Avatar saves people whose body is completely worn out or irreversibly damaged
 - Any patient with intact brain will be able to resume a fully functioning bodily life
- **2030-2035 Computer model of the brain and human consciousness**
 - Transfer individual consciousness to an artificial carrier: cybernetic immortality
 - Ordinary people will restore or modify their own brain multiple times
 - A real revolution in the understanding of human
- **2045 Substance-independent minds receive *new extreme bodies***
 - A new era for humanity will have arrived! – **become a new species**
 - **Large-scale expansion into outer space becomes feasible**



Onward to God-Intelligence?

- “If some day we build machine brains that **surpass human brains** in general intelligence, then this new superintelligence could become very powerful. And, as the fate of the gorillas now depends more on us humans than on the gorillas themselves, so the fate of our species would **depend on** the actions of the machine superintelligence.”
- “We do have one advantage: we get to build the stuff. ... It also looks like we will only get one chance. Once unfriendly superintelligence exists, it would prevent us from replacing it or changing its preferences.” – Nick Bostrom
- Will Superintelligence rival Godintelligence?
 - God the all-wise, God is love, and super-AI?
 - For Good or Evil?



It is Not the What but the How

- Futurologists see a What similar to Steiner's
- If such a 'hybrid' vision comes true
 - How soon will you want to incarnate again?
 - How is their vision different from Steiner's?
- Is this a de-humanized future?
 - Has such a dreary outlook ever occurred before in history?
 - Is our destiny better if Man and Machine do NOT merge?
- Body and Soul: What becomes of attaining Atma?
 - What will it mean to the Christ if our bodies cannot resurrect?
 - Members of SfSS: work with Lesson 2's mantram
- Are we getting helpful pictures from the spiritual beings who are preparing for the return of the moon?





Human Consciousness & The Brain

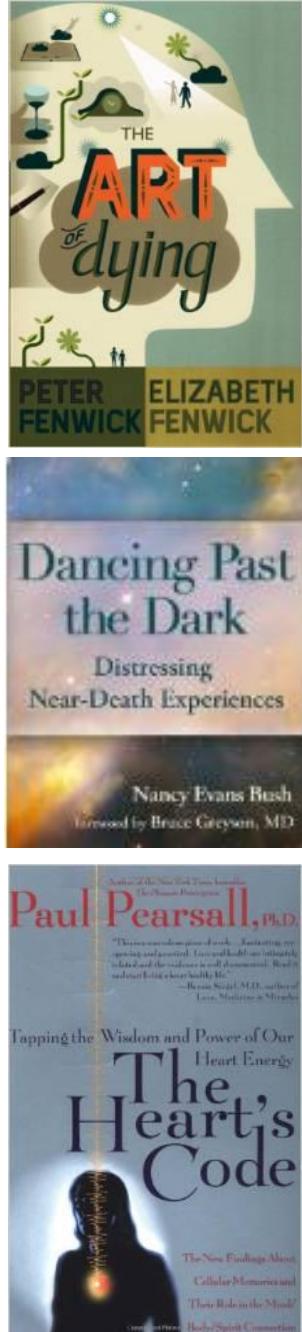
Will we “be there” once we reverse engineer the brain?

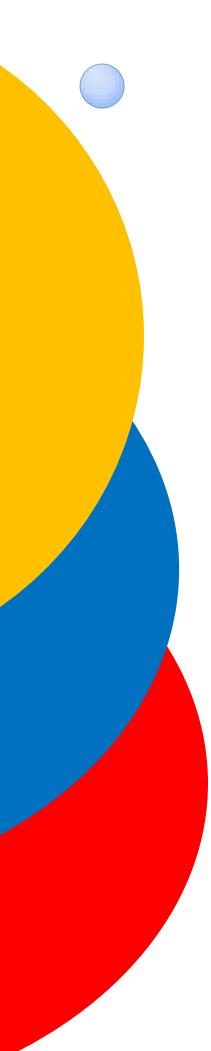
- Peter Fenwick
 - Eminent neuropsychiatrist
 - Academic expert on disorders of the brain
 - Research: end of life phenomena
 - **Consciousness may be independent of the brain and so able to survive the death of the brain**
 - Change attitudes so that we in the West can *face up to death*, to embrace it as a significant and sacred part of life
- Richard Greyson
 - Professor Psychiatry and Neurobehavioral Sciences, UVa.
 - Researcher in the field of near-death studies
 - <https://www.youtube.com/watch?v=Rtk644N2DDs>
 - <https://www.youtube.com/watch?v=en-3Bz1RMig>

Paul Pearsall

- The heart is more than just a pump; it conducts the cellular symphony that is the very essence of our being
- Research on cellular memory of the heart
- Do memories move with transplanted heart? Other organs?

Jim B. Tucker *studies of recollections of past lives*





Ever Have This Experience?

- “I know what you’re thinking!”
 - We can sense another person’s thoughts
- If we as separate beings can, what can our angels do?
- They sense in our thinking
 - They are the spirits of twilight, at the border where are senses
 - They are the snits who tell on us to the ruling archangel
- What about our feeling?
 - Archangels experience here
- And what about our willing?
 - Archai

Does Consciousness Create Reality?

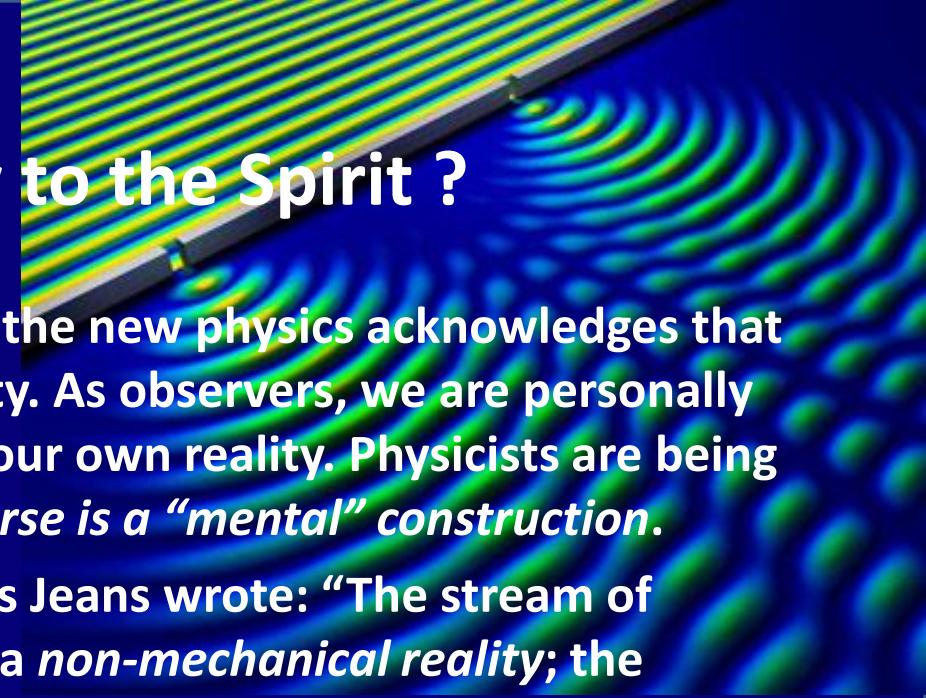
From a paper published in the journal *Physics Essays* by Dean Radin, PhD
And from ***Consciousness as a State of Matter*** [Max Tegmark](#) (MIT)

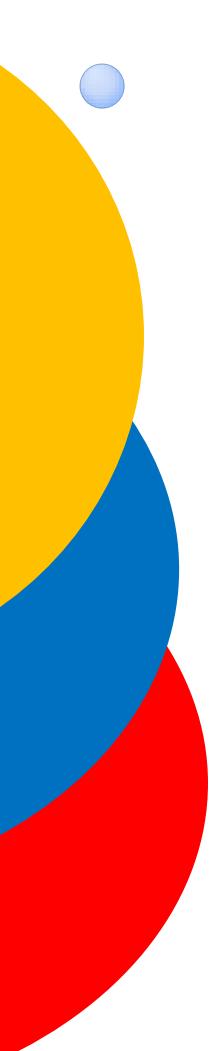
- “Looking for consciousness in the brain is like looking in the radio for the announcer.” – Nasseim Haramein, director of research for the Resonance Project
- “I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulating consciousness.” – Max Planck, theoretical physicist who originated quantum theory, which won him the Nobel Prize in Physics in 1918
- “It was not possible to formulate the laws of quantum mechanics in a fully consistent way without reference to consciousness.” Eugene Wigner, theoretical physicist and mathematician. He received a share of the Nobel Prize in Physics in 1963

Source: collective-evolution.com

Physics Leads the Way to the Spirit ?

- “A fundamental conclusion of the new physics acknowledges that the observer creates the reality. As observers, we are personally involved with the creation of our own reality. Physicists are being forced to admit that *the universe is a “mental” construction.*
- “Pioneering physicist Sir James Jeans wrote: “The stream of knowledge is heading toward a *non-mechanical reality*; the *universe begins to look more like a great thought than like a great machine*. Mind no longer appears to be an accidental intruder into the realm of matter, we ought rather hail it as the creator and governor of the realm of matter.
- “Get over it, and accept the inarguable conclusion: *the universe is immaterial-mental and spiritual.*” – R.C. Henry, Professor of Physics and Astronomy at Johns Hopkins University , “*The Mental Universe*”; *Nature* 436:29,2005





Overcoming the Cold Consciousness Soul

A true Science will **behold** in Christ the primal and eternal **Logos**

He works for the evolution of the Spirit-Being of Man

To turn the human heart in **Love** towards these great **cosmic connections**, it
fires with its warmth the Consciousness Soul's cold element of Light

Such is the stream of Cain to understand and use such fire, enthusiasm

Were the Consciousness Soul condemned to remain unwarmed by such fire,
Man could never attain to its transformation in the Spirit

He would either *perish in the cold of intellectual consciousness*, or would be
condemned to *remain in a form of spiritual life which never progresses* to the
evolution of the Spiritual Soul

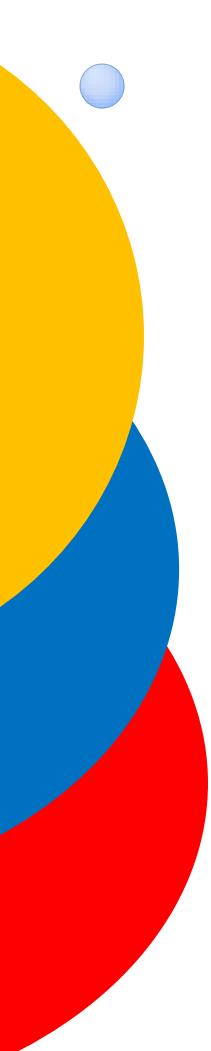
He would then stop short with the evolution of the Intellectual or Mind-Soul

But the Consciousness Soul is not, of its own being, cold

It only appears so at the beginning of its evolution; because at **the beginning it can
only display the Light-element that is in it, and not as yet the World-Warmth**,
from which it nevertheless proceeds

The deliverance of Man is accomplished **in the fields of Earth** from those
powers who would draw him away from his source and origin

-- Michael Mystery, lecture 14



Integrate Man with Computer & AI

- Wearables e.g. Google Glass
 - Clothing
 - Audio helper
- Link to our brain
 - Context switching?
- Invisible
 - Work without our own will (manipulation?)



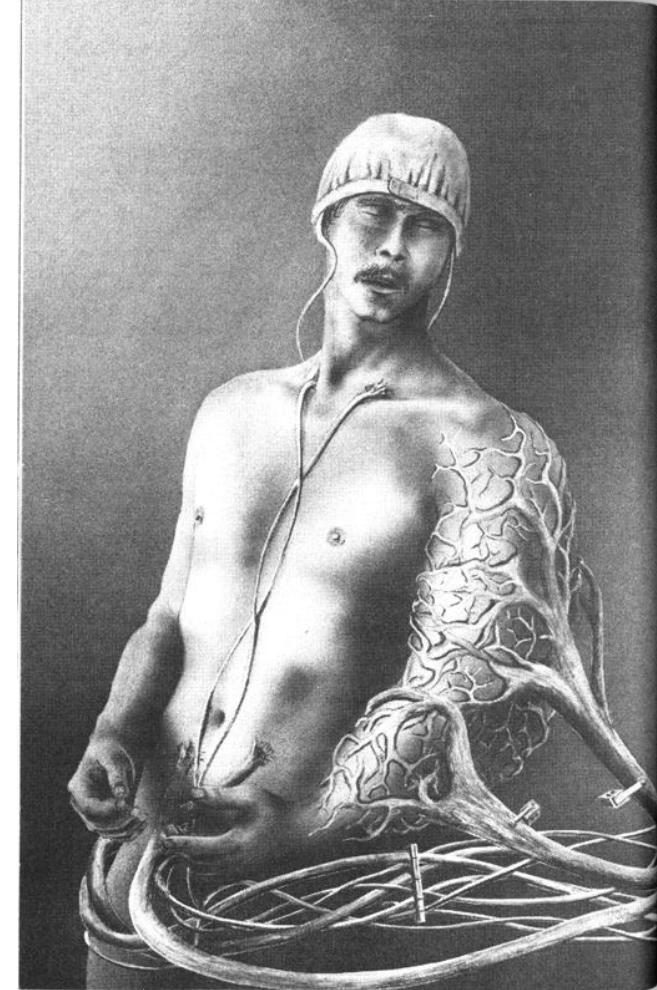
Where Do We Use Computers & Robots?

- In the Man-made world
 - Optimize
 - Emancipate
 - Simplify
 - Full immersion virtual reality
- Diffuse bombs, clean up toxic disasters, and explore (Mars Rovers)
- In Nature?
 - Convert it to the man-made world
- Utilitarian versus for beauty, art
- Are they slaves or will they be partners?

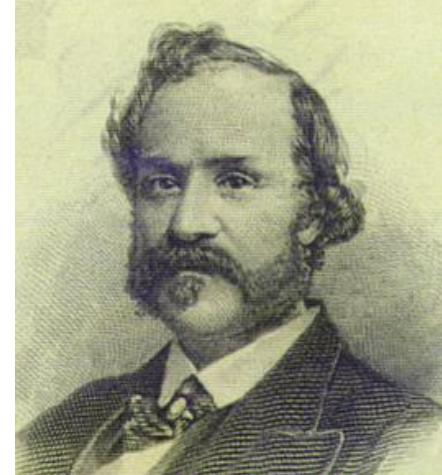


CAN WE LINK OUR RHYTHMS TO A MACHINE?

- Without wires
- What happens to our humanity if we do?
- Will we be “pulled down”?



John Ernst Worrell Keely, 1827-1898



- My system, in every part and detail, both in the developing of this power and in every branch of its utilization, is based and founded on **sympathetic vibration**. In no other way would it be possible to awaken or develop this force, and equally impossible would it be to operate my engine upon any other principle.
- At 10, interested in the study of **tones and resonances**
- Developed the first prototypes of his "Keely Motor" in the 1860s
 - 1872: hoping to get rich, businessmen set up The Keely Motor Company with Keely as chief scientist to raise money through stock sales
 - In the early 1880s, the business was breaking up and all but destroyed Keely
- Keely agreed to a deal offered by Mrs. Clara Bloomfield-Moore to stop making a commercially viable motor and to engage himself fully into the science
- Keely completed his science work in 1893
- 1895: Keely's conscience drove him to make an attempt to rescue the stockholders of Keely Motor Co but Keely died November, 1898

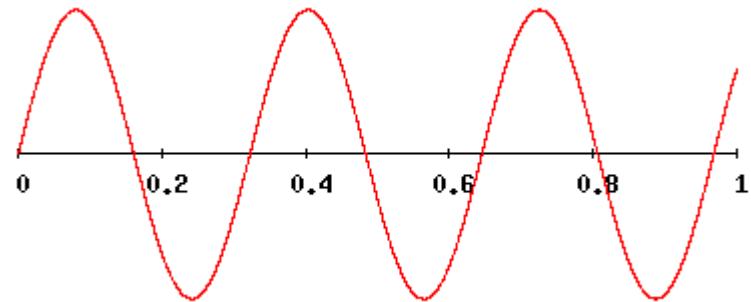
Approaches to Mechanical Occultism



- Keely's pronouncements & indications intentionally obscured
- 1888: “Occultists generally believe that the **world is not yet ready** for the appearance of such terrible forces in the life of humanity. Man is too selfish, cruel, stupid, unsympathetic, bestial, to be entrusted with what in sober reality are secondary ‘divine powers’.” – Richard Harte, introduction to Mrs. Bloomfield-Moore’s *Keely's Secrets*
 - Harte was secretary of the Theosophical Society in 1888
- Rudolf Steiner in *The Occult Movement in the Nineteenth Century* describes “**progressive and conservative sides**”
- **Strader / Mystery Plays**
- Intended to **transform social life**
 - Enables everybody to use this power in their own home
 - Nothing is said about its physical or technical characteristics
 - Maintains itself but cannot set itself going
- Technical realization miscarries
 - *The Soul's Awakening*
- **Should be done in America**
 - Wireless resonance

Rhythms

- Circadian – Nature/Seasons
 - Paper route
 - Monasteries
 - Business
- Cosmic: Spring equinox, 235 moons
- Man (child different)
 - Heart 1 Hz
 - Breath 0.2-0.3 Hz (25,920 breaths a day, 18x60x24, image of sun thru zodiac)
 - Awakenings 365.24×70.97 years = 25,920 per lifetime (same as sun thru zodiac)
 - Audio range 20-16,000 Hz
 - Light range 430–770 THz (trillions)
 - Visual (Critical Flicker Fusion) 16-24 Hz
 - Brain (EEG)
 1. Beta 12-32 Hz
 2. Alpha 8-12 Hz
 3. Theta 4-8 Hz (heart thinking?)
 4. Delta < 4 Hz
- Animal (each species is different)
- Etheric & Astral



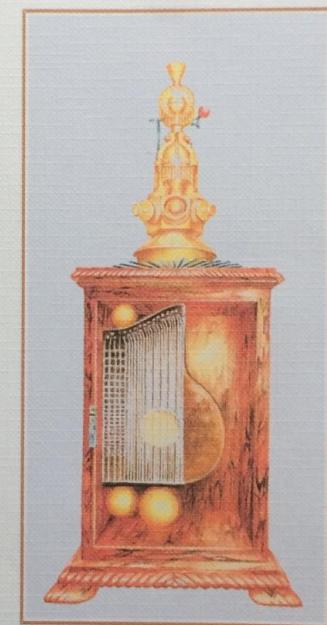
Computer 2 GHz (billions per second)

Rhythm has been implanted into matter by the spirit. Man, today, has these rhythms within him as a heritage of this spiritual origin.

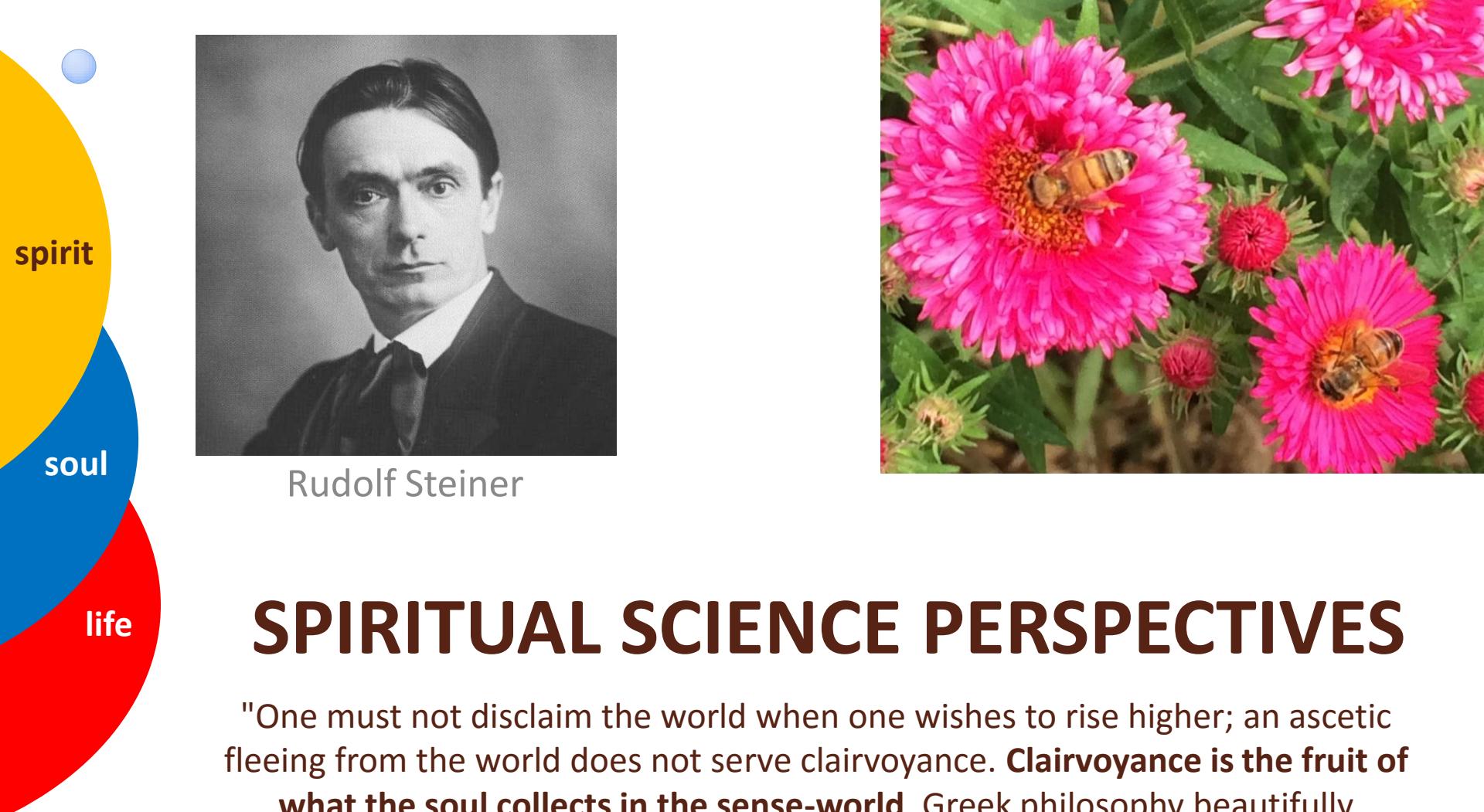
Resonance and Moral Technologies

- Strader Machine diagrams/history
- “**Introduce life into things he makes**”
- “Whoever is doing this at the laboratory bench will have to be capable of drawing out of himself – let us call them the **oscillations of his etheric body** – and carrying them over into **that which is to receive life**” [what is this?]
- Knowledge of how to do this is guarded by the White Lodge and will only be released when men have learned the secret of **sacramentalism**”

Machines and the Human Spirit



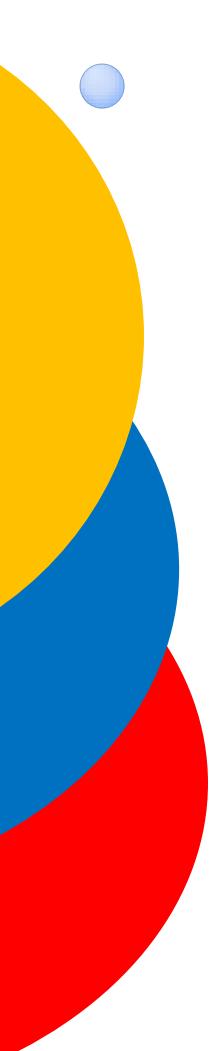
Paul Emberson



SPIRITUAL SCIENCE PERSPECTIVES

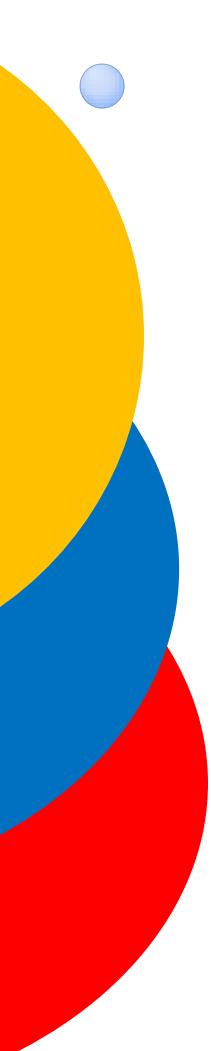
"One must not disclaim the world when one wishes to rise higher; an ascetic fleeing from the world does not serve clairvoyance. **Clairvoyance is the fruit of what the soul collects in the sense-world.** Greek philosophy beautifully compared the human **soul with a bee.** The world of color and light offers the soul honey which it brings with it into the higher world. **The soul must spiritualize sense experience and carry it up into higher worlds.**"

The Origin of Suffering, Origin of Evil, Illness, and Death, GA 55 – Berlin, 22nd November 1906



Steiner on Facing Human-Mechanical

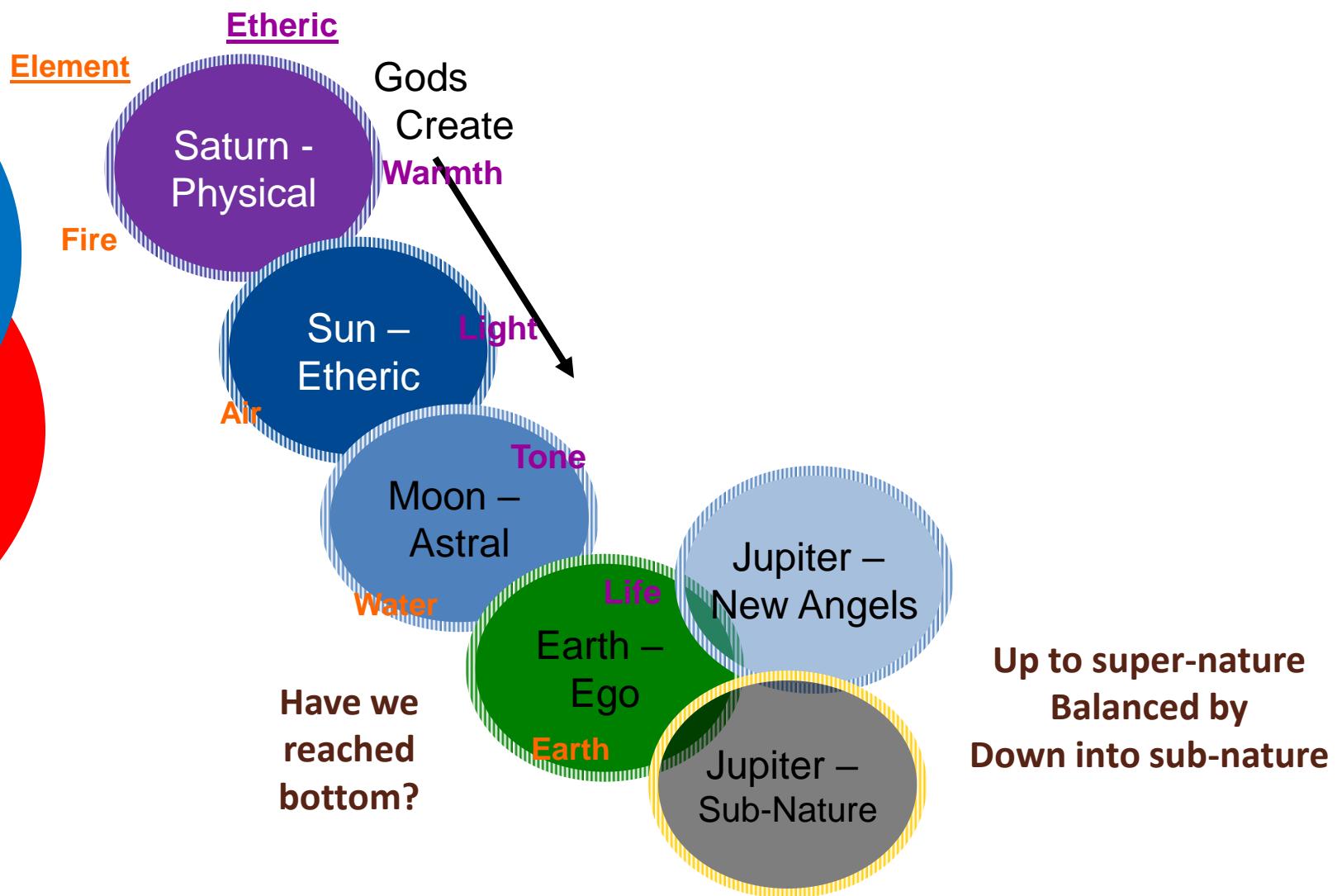
- “The will is there to harness human energy to mechanical energy
- Sympathetic Vibratory Physics
 - Fifth post-Atlantean period will have to solve the problem of how human moods, the motions of human moods, allow themselves to be translated into wave motions on machines, how man must be brought into connection with what must become mechanical
- These things should not be treated by fighting against them – that is a completely false view
- These will not fail to appear; they will come
 - What we are concerned with is whether, in the course of world history, they are entrusted to people who are familiar in a selfless way with the great aims of earthly evolution and who structure these things for the health of human being or whether they are enacted by groups of human beings who exploit these things in an egotistical or in a group-egotistical sense
- It is not a question of what; the what is sure to come; it is a question of the how, how one tackles these situations”
- Rudolf Steiner, *The Reappearance of Christ in the Etheric*, lecture 12

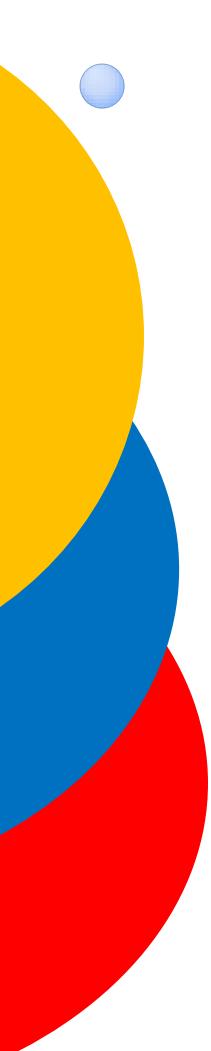


Facing a Future with Machines (Western Path)

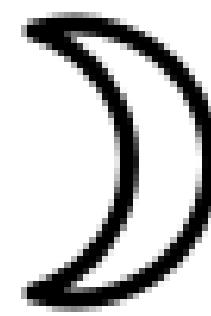
- “All that is present in the world today in terms of machines and instruments and is set in motion [to serve the **principle of utility**] will evolve into terrible, horrifying demons”
- “This can be stopped if we transform the utilitarian apparatus into something that also **proclaims beauty or the Divine.**”
- “Our feelings of **fear** are **nourishment** for evil beings.” –
Jan.26, 1908, Berlin, GA 245
- Will dead thinking of AI reveal human living thinking?
 - Will we see more clearly what the HB is? Moral impulses?

Next Cosmic Stage of the Human Condition





Trouble for Old Moon's Humans



- Old Moon: current Angeloi were at the human stage
 - Beings with an appearance quite different from ours
 - There were quite different conditions upon the ancient Moon
- Alongside these Moon-men (Angeloī) we developed
 - **During the descending phase** we constituted a **troublesome concern** for them
 - **A pre-state of the Earth evolution** such that Angeloī had to take us into consideration
 - Same is the case with us during **descending** Earth evolution
- R. Steiner, *The Mission of the Archangel Michael*, The Michael Deed and the Michael Influence as Counter-pole of the Ahrimanic Influence, 29Nov19

24

Now Entering Earth's Stage

Important result of spiritual-scientific research:

- **Earth evolution has entered its descending phases**
 - Other beings make themselves felt
- “We have already entered the period of Earth evolution when **certain beings make themselves felt who upon Jupiter** — the next state of Earth evolution — will have advanced to the form of man, a different form of man, to be sure, but which, nevertheless, may be compared with the being of man”
 - “For we will be different beings on Jupiter
- **“These so-to-speak Jupiter-men exist already now just as we existed upon the Moon**
 - **They exist, of course not externally visible.** Supersensibly these beings are very decidedly present.”
 - R. Steiner, *The Mission of the Archangel Michael*, The Michael Deed and the Michael Influence as Counter-pole of the Ahrimanic Influence, 29Nov19

Overlapping Evolutions

- In our **descending evolution** (now) the Jupiter Humans arise
 - On Jupiter, they will have advanced to a new & different form of human
 - These Jupiter men exist already now just as we existed upon Old Moon
 - They exist not externally visible but as supersensible beings
- We become responsible for them similarly to how angels became our guardian angels



The Mission of the Archangel Michael, V, The Michael Deed and the Michael Influence as Counter-pole of the Ahrimanic Influence, November 29, 1919

Shouldn't We Test Drive The Jupiter Bodies?

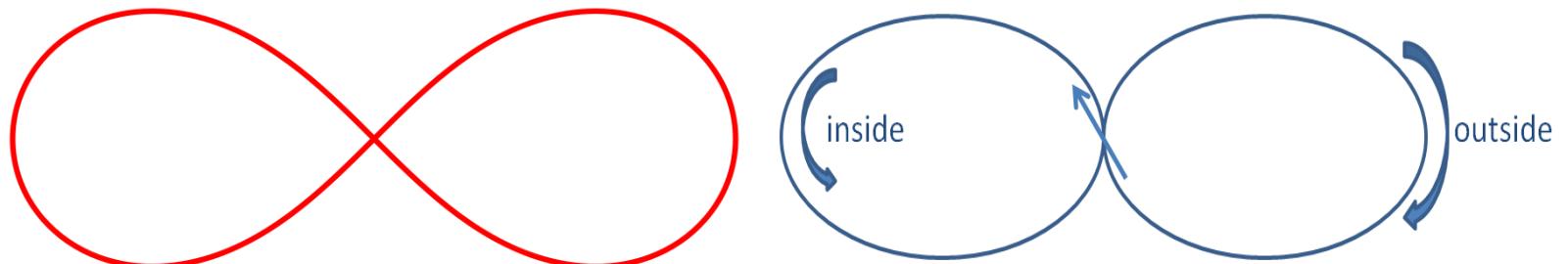
- Get it right before asking new beings to drive them
- Man-Machine Hybrids
- Ability to drop into the controls as an avatar
- What kind of world will they experience?

Automaton Talos, Athenian red figure Krater 4th C B.C., Jatta Museum, Ruvo

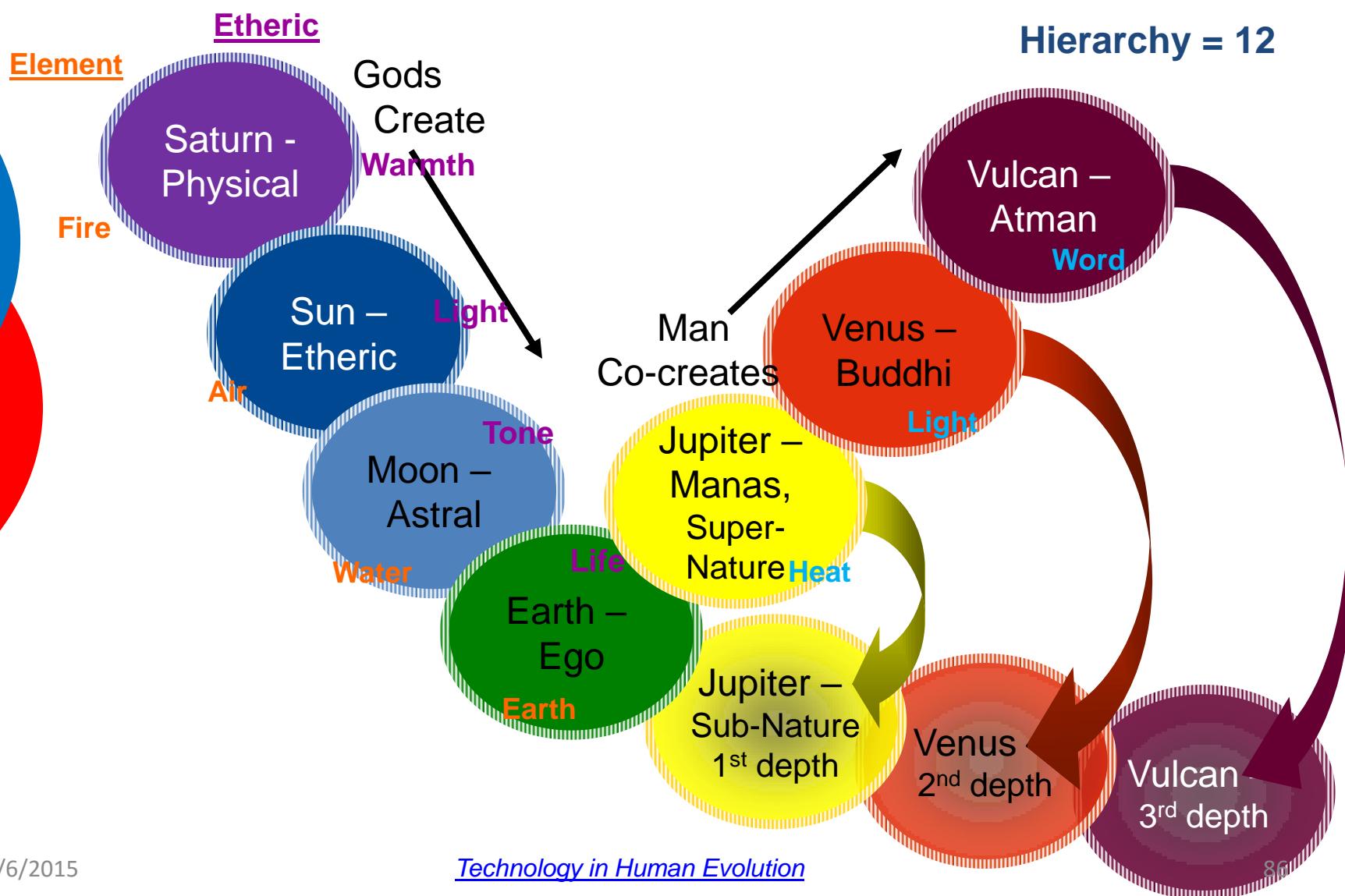


What Will Be Our Future World?

- “**What is now around you will become your *inner life*.**
 - “You will take into yourselves what is now the mineral kingdom and it will become part of your inner being; similarly the plant kingdom.
 - “What surrounds you in nature will become your inner being
- “**What we ourselves prepare and make ready in the world — that is what will constitute our future existence**
 - “The measure of what you yourself place into the world is the measure of the consciousness that the world will give back to you
- “**What we do with the mineral world, with the plant world, with the animal world, and with men, that we shall surely become”**
 - “If you found a charitable institution or have contributed something to its foundation, what you have contributed will become an integral part of you”
- R. Steiner, *The Atom as Coagulated Electricity*, GA93



7 Stages of Human Condition



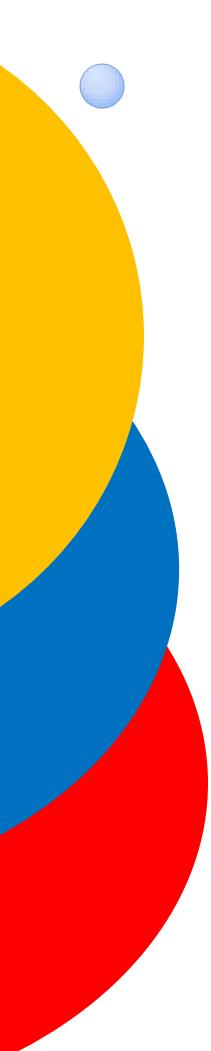
Gifts of Technology

- Emancipation
 - Labor, typing, reading, ...
- New ways of establishing relationships
 - Must permeate these with spiritual science
 - Man-Machine interface through sympathetic subtle vibrations
- Lifts the Veils of Materialism
 - Dead vs living thinking
 - Intelligence vs Wisdom
 - Analysis vs Creativity
 - Supremeness of consciousness
 - More than intelligence
 - Consciousness soul “discovers” its ego (not in AI or robots)
- If we can endow, were we endowed?



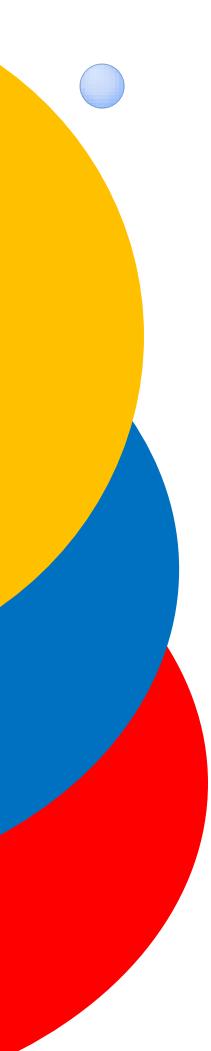
What is it NOT?

- Companion?
- 12 senses?
- Living?
- Soul?
- Spirit?



Review

- Software Engineering
 - Binary logic as basis for both math and artificial intelligence
- Evolution
 - Emancipation from labor
 - Elemental spiritual beings
 - Jupiter-men entering Earth-stage now
- Robotics and Artificial Intelligence
 - Western Path: Man-machine interface and relationship
- Conclusion
 - We should not fear; rather we should be defining the “how”
 - Because it can be used for evil purposes, so should we be involved
 - We must wrest from Ahriman what will be necessary for Jupiter



Conclusion: There is a Social Future

But very different from what we know today

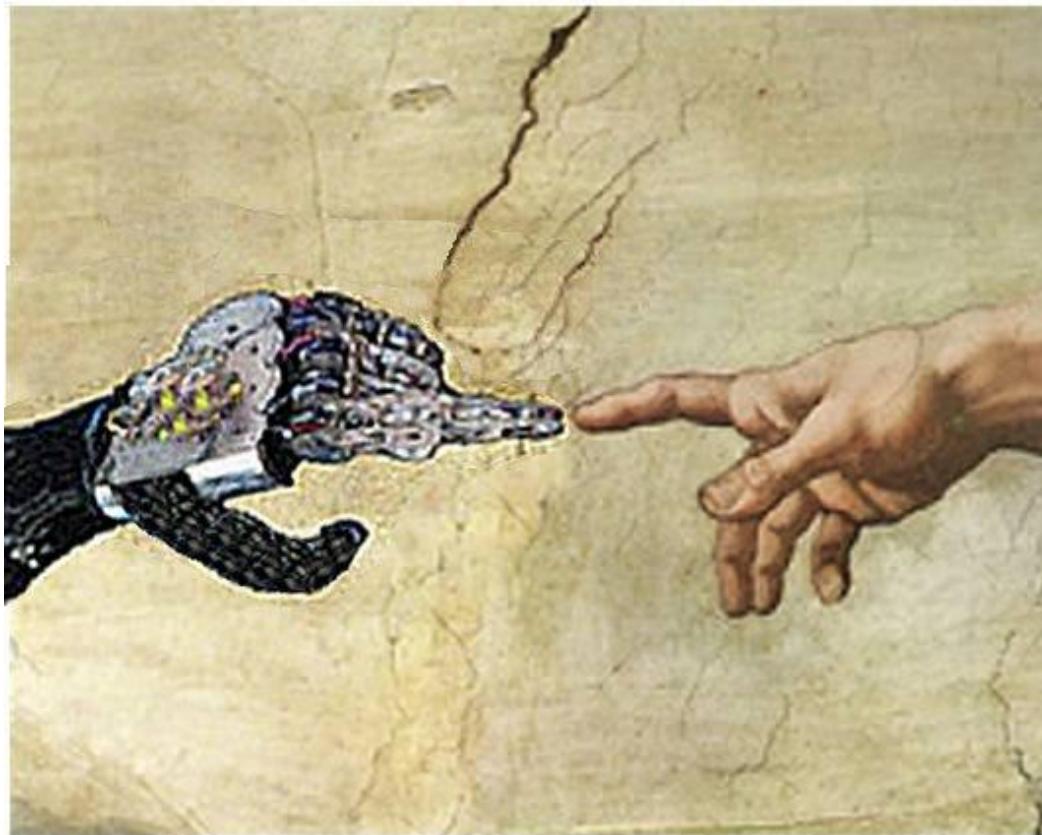
- 1. Western destiny is with technology especially machines**
 - It actually is a battle for the etheric realm and for elementals
 - Many dangers prevail crying in the wilderness
 - Nanotechnology, e.g., is a dangerous frontier
 - Time to fully wake-up, know what truly is the human being
 - We must go this path but not lose what it is to be a Human
 - Fear or hatred of the future feeds Ahriman
 - Parallel development of spirit and body for Jupiter-Men underway
 - Beginning through the will, Man's contact with and responsibility for Jupiter-humans will increase
- 2. Man must be a balance of sub & super Nature, dark & light, male & female wisdom, and other polarities**
 - New mysteries arise through this balance
 - Who will build the **new Masonic mysteries?**
- 3. Man will co-create Jupiter and beyond**
 - “Oh Man, Know Thou Thyself” itself evolves
 - We start now becoming the guardian angels to the Jupiter-human



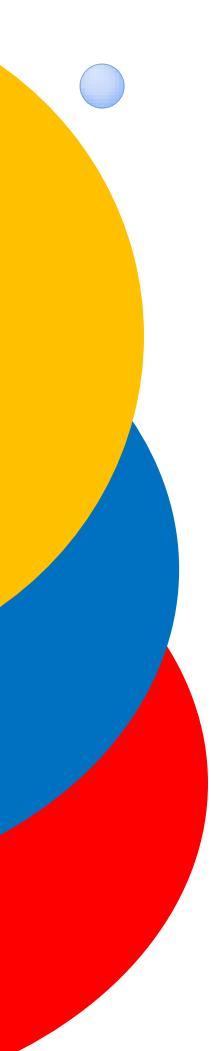
Questions?

As angels permeated Earth with Wisdom from the Kyriotetes, what beings will we assist to build a Jupiter permeated by Love?

And, thank you for sharing your insights!



END



Further Study

- Synesthesia: <https://www.youtube.com/watch?v=FTr1VnXKr4A>
 - See odors
 - Smell or hear colors
 - Feel images
 - Associate personalities with objects
 - Increasing, now 4% of population
- Mirror Touch Synesthesia:
<http://www.npr.org/programs/invisibilia/382451600/entanglement>
 - Physically feel what you see another is feeling

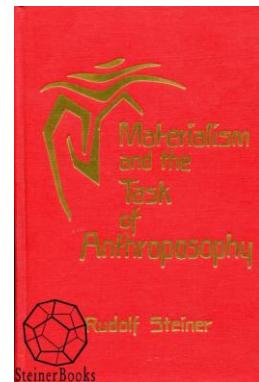
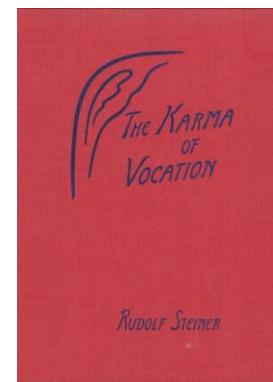
Background Material

By Rudolf Steiner:

- The Temple Legend
- Concerning Electricity
- The Mystery of the Human Double
- The Michael Deed and the Michael Influence as Counter-pole of the Ahrimanic Influence
- The Deed of Christ and the Opposing Spiritual Powers
- The Elemental World and the Future of Mankind
- Building Stones for an Understanding of the Mystery of Golgotha
- The Karma of Vocation
- The Challenge of the Times
- Inner Impulses of Evolution
- Materialism and the Task of Anthroposophy
- Foundations in Esotericism
- An Esoteric Cosmology
- The Elemental World & the Future of Mankind

By Others:

- The Battle for the Etheric, Nick Thomas, Temple Lodge Press, 2006
- I Corinthians 12:12-27, a passage ending with “Now ye are the body of Christ”
- The Futurist, March-April 2006, www.wfs.org
- Blue Brain Project, www.eetimes.com, May 28, 2008
- Alan Turing paper Computing Machinery and Intelligence, Mind, 1950
- Will Robots Inherit the Earth? Marvin Minsky, Scientific American, Oct 1994
- The Futurist, March-April 2006, www.wfs.org, pg. 42
- <http://www.cyberkineticsinc.com/>

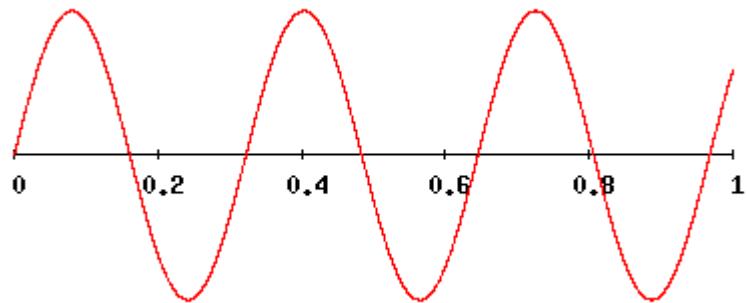


Additional Rudolf Steiner Bibliography

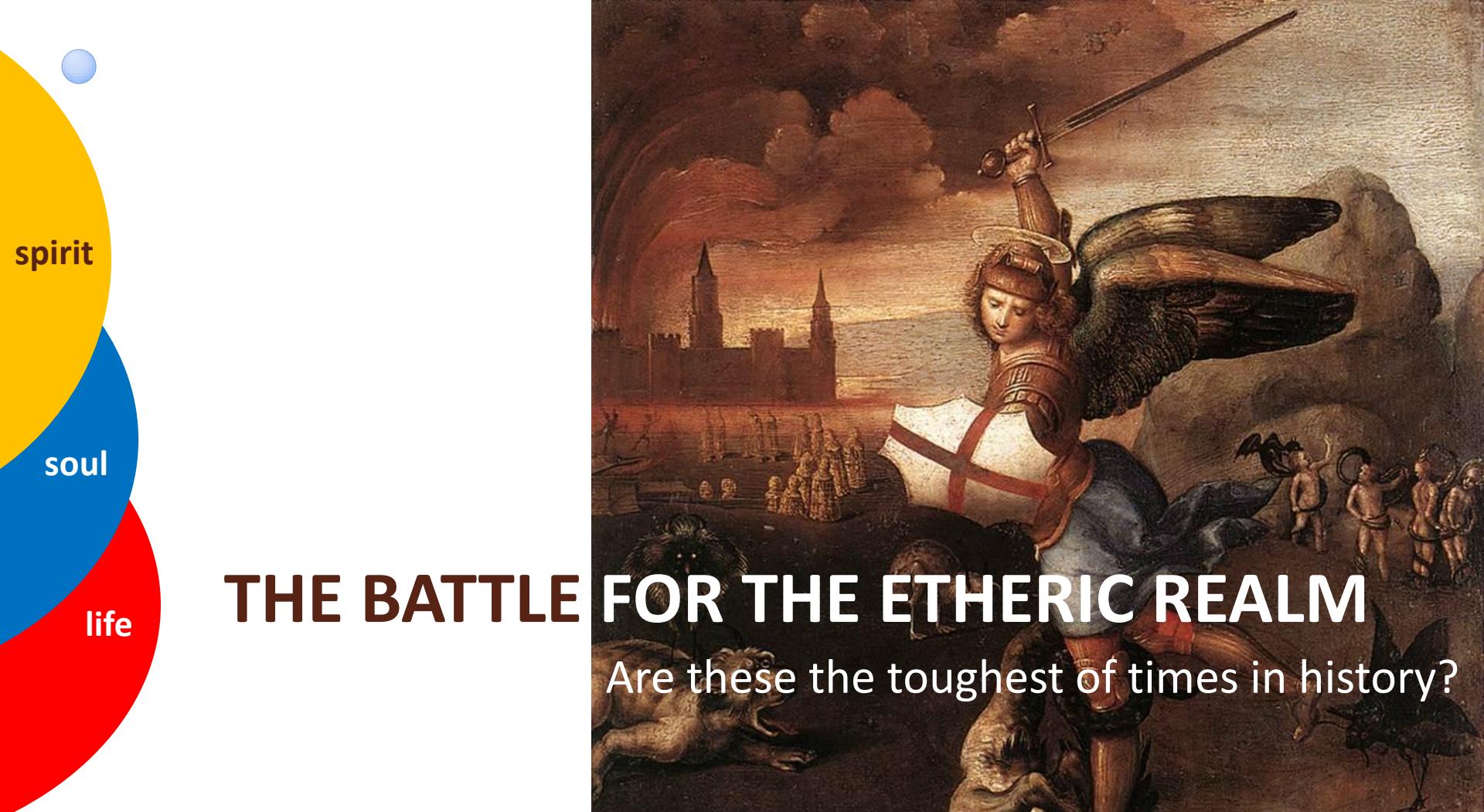
- An Outline of Occult Science, 1909
- Egyptian Myths and Mysteries, 9/2-14, 1908
- The Balance in the World and Man, 11/20-22, 1914
- The Realm of Language, The Lost Unison between Speaking and Thinking, 7/17-18, 1915
- The Work of the Angels in Man's Astral Body, 10/9/1918
- Rosicrucian Esotericism, 1909
- Theosophy of the Rosicrucian, 1907
- Evil and the Future of Man
- Building Stones for an Understanding of the Mystery of Golgotha
- Three Streams in the Evolution of Mankind
- Mysteries of Light, of Space, and of the Earth, 15Dec1919
- A Picture of Earth-Evolution in the Future, 13May1921, GA204
- The Challenge of the Times, 11/29 – 12/8, 1918
- The Influences of Lucifer and Ahriman, 11/1-15, 1919
- The Mission of the Archangel Michael, 11/21-30, 1919
- The Reappearance of Christ in the Etheric
- The Boundaries of Natural Science, 9/27 – 10/3, 1920
- Life between Death and a New Birth as Image of the Future Jupiter, 10/21, 1921
- Michealmas and the Soul-Forces of Man, 9/27 – 10/1, 1923
- The Michael Mystery, 3/1925

Key Theme: Rhythms

- Circadian – Nature/Seasons
 - Paper route
 - Monasteries
 - Business
- Cosmic: Spring equinox, 235 moons
- Adult (child different)
 - Heart ~1 Hz
 - Breath 0.2-0.3 Hz ($18 \times 60 \times 24 = 25,920$ breaths a day, image of sun thru zodiac)
 - Awakenings 365.24×70.97 years = 25,920 per lifetime (same as sun thru zodiac)
 - Audio range 20-16,000 Hz
 - Light range 430–770 THz (trillions)
 - Visual (Critical Flicker Fusion) 16-24 Hz
 - Brain (EEG)
 1. Beta 12-32 Hz
 2. Alpha 8-12 Hz
 3. Theta 4-8 Hz (heart thinking?)
 4. Delta < 4 Hz
- Animal (each species is different)
- Etheric & Astral

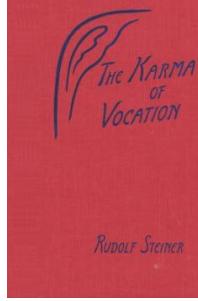


Rhythm has been implanted into matter by the spirit. Man, today, has these rhythms within him as a heritage of this spiritual origin.



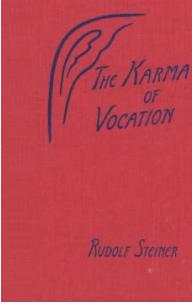
THE BATTLE FOR THE ETHERIC REALM

Are these the toughest of times in history?



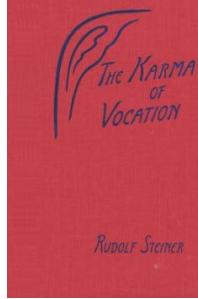
Vocation In Our Fifth Post-Atlantean Age

- All human **relationships** will be essentially **modified** in comparison with those that prevailed in earlier PAAs
 - Before the Fifth, one carried out relationships instinctively
 - Inspiration gave one the direction to go
 - Groups and its members were led by their Mystery Center
 - This came to a close by the 4th century
 - Today human freedom reigns and is respected by the Sp.World
- Vocation is important part of Evolution & it evolves
 - Future evolution of vocational life will consist in the ever increasing differentiation and specialization
 - Connection between what is produced and what it means for the world is being lost



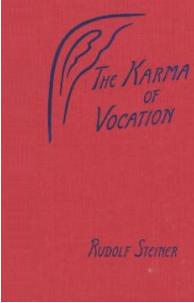
The Evolution of Vocation

- People *must* increasingly lose interest in their work
 - They must surrender **like automatons** to their work
 - World demands increasingly that one excel, become specialist
- One's inner nature acquires the color of their outer work
 - Vocational life influences soul life, specializing it
 - Vocation means an inner calling but this calling no longer exists
- Impact on Education (is it vocational training?)
 - How shall I place my child into the evolution of humanity?
 - Should children be directed to become what corresponds to their observed talents?
 - In the near future, life will be so complicated that the word profession will take on an entirely different meaning



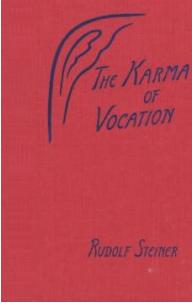
Impact On Human Relationships

- What humanity accomplishes through vocational activity is now detached from man himself; it becomes objective
- Vocation now joins cosmic evolution thru Jupiter – Vulcan
- [Where once social bonds were easily built based on shared vocation, this today is disappearing]
 - [Development of Consciousness Soul – I'll relate from my home]
- Vocational life becomes detached from human interests
 - Must develop relationships possessing a cosmic significance
 - Universe requires things to be unified through polar opposites
 - When vocational labor is separated from the human being, it necessarily creates the first cosmic potentiality for a far-reaching cosmic evolution



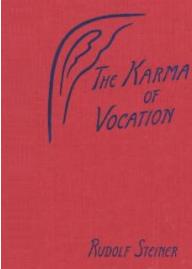
Labor and Elemental Spiritual Beings

- Everything that happens in the evolution of the world is related to the spiritual
 - What we create, whether by bodily or by mental labor, there lies the possibility for the incarnation of spiritual beings
- At present, during this earth stage, these spiritual beings are of an elemental kind
 - The labor in the objective vocational process is detached from us and becomes the external sheath for elemental beings who thereby continue their development
 - What we produce in our vocational life can become meaningful for the Vulcan evolution, but something else is prerequisite to this
 - Just as positive electricity is necessary for negative, and the male necessary for the female, so also what will be released continuously from humanity as activity will require an opposite pole



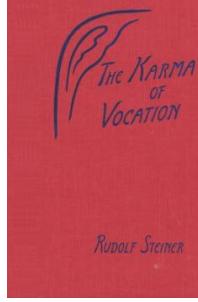
The Polarity to Vocational Life

- It is important that we come to see more clearly how in earlier times man's emotional life was intricately related with his professional life and how subsequently the latter has increasingly become disengaged from man's emotional life and must continue to do so
- For this reason, the polar opposite of vocational life must become something different from what it was earlier.
- Pole to vocational life is life dedicated to religious conceptions
- The buildings in which professions are practiced and in the midst of these, the church, have become the shell of culture
 - Five to six days of the week reserved for work
 - Sunday reserved for the needs of the soul – this will change



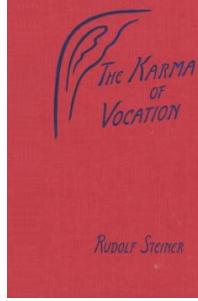
The Need for Rich Religious Conceptions

- It would be one of the greatest mistakes that could be made to suppose that this other pole as it is still conceived today by the religious denominations could remain as it is
 - It was made to fit a vocational life still bound up with the emotions
- In the past, the elemental spiritual being that an individual creates in his vocation was not so separated from him, thus old religious conceptions sufficed to maintain balance
- Today religious conceptions are no longer sufficient
 - And they will become less so the farther we advance
- The ability to form concrete concepts regarding the spiritual worlds must NOW enter into evolution
- It is important that the elemental spiritual beings shall come into existence in the right way
 - Elemental spirits both destructive and helpful to the world process can come into being
 - The elemental beings that are created and released through vocational labor must be fructified by the human soul with what it takes into itself from impulses striving upward to the spiritual regions



Machines of the Future

- “Today, machines are constructed. Of course, at present, they are objective containing little of human element
- “But it will not always be so: the course of the world tends to bring about a **connection between what the human being is and what he brings into existence**
 - “This connection will become ever more intimate
 - “It will appear first in those areas that furnish the **foundation for closer relations** between one person and another.”
 - Each human being should fill his soul with what brings him close to every other human being regardless of vocation (or race)
- “Human beings will again, in the future, perform their work but from different impulses”
 - R. Steiner, *The Karma of Vocation*, lecture 4



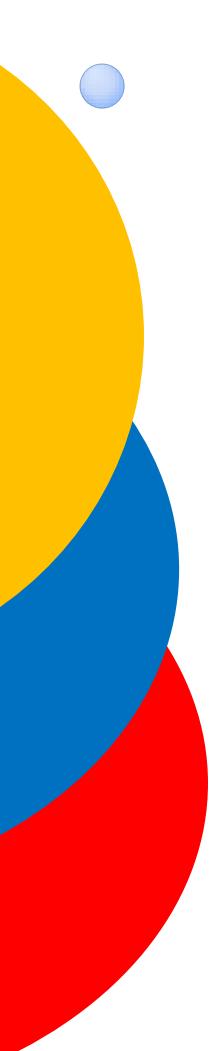
Sympathetic Vibratory Physics

- Subtle pulsations lying in the human being's disposition incorporate themselves gradually into what he produces
- It will soon no longer be possible for people to bestow the warmth gained from the enthusiasm and joy derived from their work on the things produced
- An entire factory will operate in a completely individual way that will be in keeping with the one who directs it
- His or her attitude of mind will enter into the factory and will pass over into the way in which machines work
 - Human beings will blend with this objectivity
 - Everything touched will come to bear a human impression
- Through the vibrations of the air caused by arm movements, a motor adjusted beforehand will respond and set to work
 - Such settings could exclude those with poor moral intentions
 - The former enthusiasm for producing now becomes a motor force



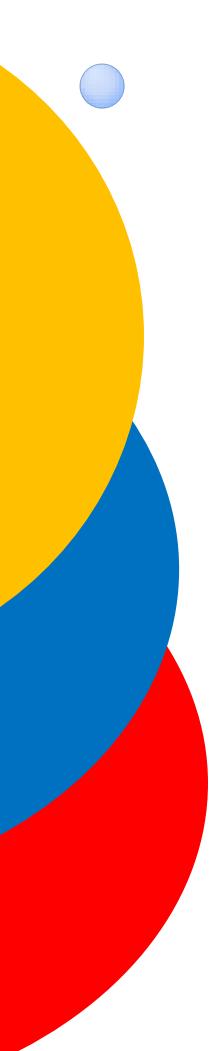
Awakening to the Elemental Beings

- Elemental spiritual beings are active behind all this, and it is **essential that man should acquire insight into their characteristics**
- During the period in which man developed the intellect from the first third of the fifteenth century to the end of the nineteenth century — these elemental beings were pushed to one side, as it were
 - While the intellect played a creative part in man's cultural life there was not much they could do, and because the elemental beings dwelling in solids had, in a certain sense, to hold back and leave the intellect to man, they also held back the beings of water and air
- Now we live at a time when the **intellect has begun to decline** within the civilized world; it is falling into decadence
- **If mankind does not become receptive to what streams towards him from the spiritual world**, then the result of this dullness on man's part will be — and there are signs already of it happening — that these **elemental beings will gather together to form a kind of union and place themselves under the leadership of the supreme intellectual power: Ahriman**
- R. Steiner, *The Elemental World and the Future of Mankind*, Dornach, 28 May 1922



Elemental Beings of the Ethers

- Just as the lower elements of earth, water and air are inhabited by elemental beings, so are the higher elements of light ether, chemical ether and life ether
 - The beings of the earth element strive the most to become uncountable **multitudes**
 - The beings of light, and of life, do not aim at becoming multitudes, rather **unity**
- The beings of the etheric element are difficult to differentiate; they do not express any individuality and rather strive to amalgamate
- The strong tendency of these elements towards unification created an influence which resulted in the strict **monotheism** of Judaism
 - The religion which is based on the worship of Jehovah originated mainly from a spiritual vision of the realm of the ethers
 - In this realm live spiritual beings **seek to become a unity**
- If these beings are disregarded by man, if man's comprehension stops at the external material aspect, then the probability exists that these beings will unite with ahrimanic powers
- - Source: R. Steiner, *The Elemental World and the Future of Mankind*, Dornach, 28 May 1922



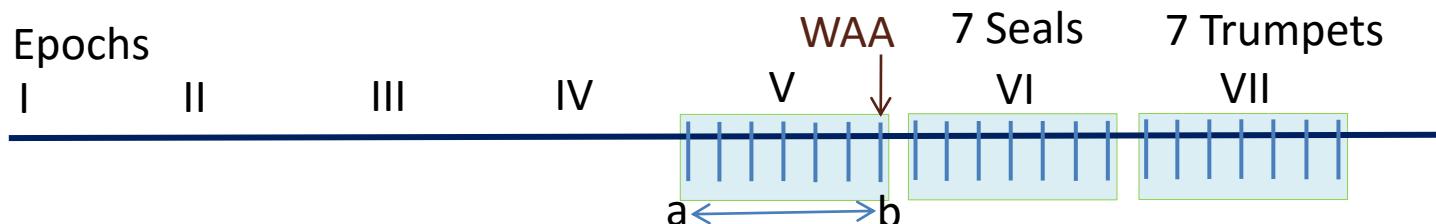
Necessity of Spiritual Knowledge

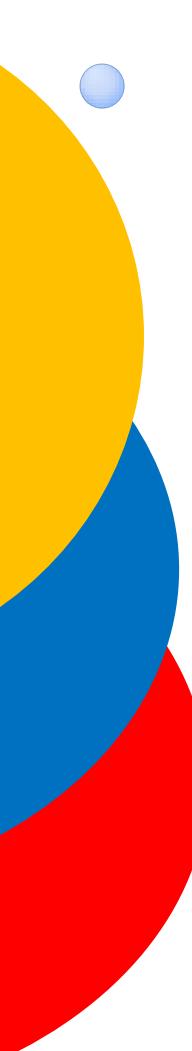
- In order for the earth to become what it was originally intended to become
 - Man must wake up to the dangers that threaten from both sides:
 1. Danger that lower elemental beings will join forces with ahrimanic powers
 2. Higher elementals, in their striving for unity, will unite with Ahrimanic powers
 - Significance of spiritual knowledge for man's earthly destiny cannot be emphasized enough
 - **Unless man draws near to spiritual reality something completely different from what ought to happen will happen to the earth**
- Chemistry and physics have no value whatever beyond the earth
 - When earth evolution ends, all mineral substances will dissolve in the cosmos
 - Only what pertains to the plant, animal and human world will pass on to Jupiter
 - The achievements of the sciences are related only to what is transitory
- **Essential that knowledge is attained of what endures beyond the earth**

R. Steiner, *The Elemental World and the Future of Mankind*, Dornach, 28 May 1922

War of All Against All

- “In the **seventh epoch** of civilization, this War of All Against All will break out in the most terrible form.
- “Great and mighty forces will be let loose by the discoveries, turning the whole earth-globe into a kind of [self-functioning] live **electric mass**.
- “In a way that cannot be discussed, a tiny handful will be protected and preserved.”
- R. Steiner, *The Atom as Coagulated Electricity*, GA 93, 24 Dec. 1904





Future Ages and Epochs

- 6th PA Age (Russian) will found civilization after WAA
 - Not the last (7th – American), founds the 7 trumpets' civilization
 - Western Path: Taking on Evil (Mission of Mani)
 - 5th Atlantean race founded PA cultures
- 6th Epoch: Live in a **Descended** Astral World
 - Current images, expressions, manifestations
 - Unable to hide anything
 - Show good and evil in their faces
 - Evil man will express his evil, a good man will express the good
- 7th Epoch: Live in a **Descended** Devachan (Heavenly)
 - Impossible to hide what is in one's soul even in speech
 - Thought no longer remains dumb – becomes Word
 - Goal: All earthly beings become an astral heavenly body
 - Physical substance will be 'dissolved' as Archai achieve Atma
 - Countenance and words of beings as expression of Christ

Rudolf Steiner, *The Apocalypse of St. John*, Lectures on the Book of Revelation, 12 lectures from 17 to 30 June 1908