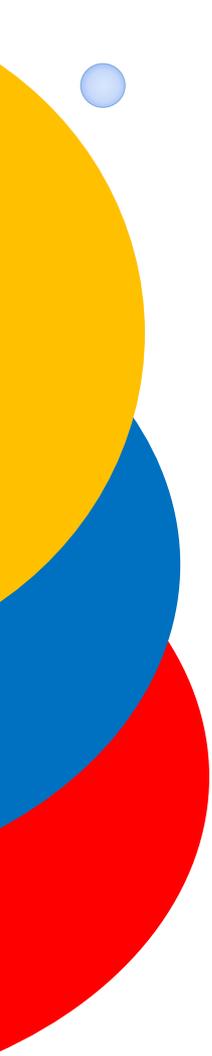


State of MysTech **And the Three Occultisms**

With Andrew Linnell



**Center for
Anthroposophical
Endeavors**



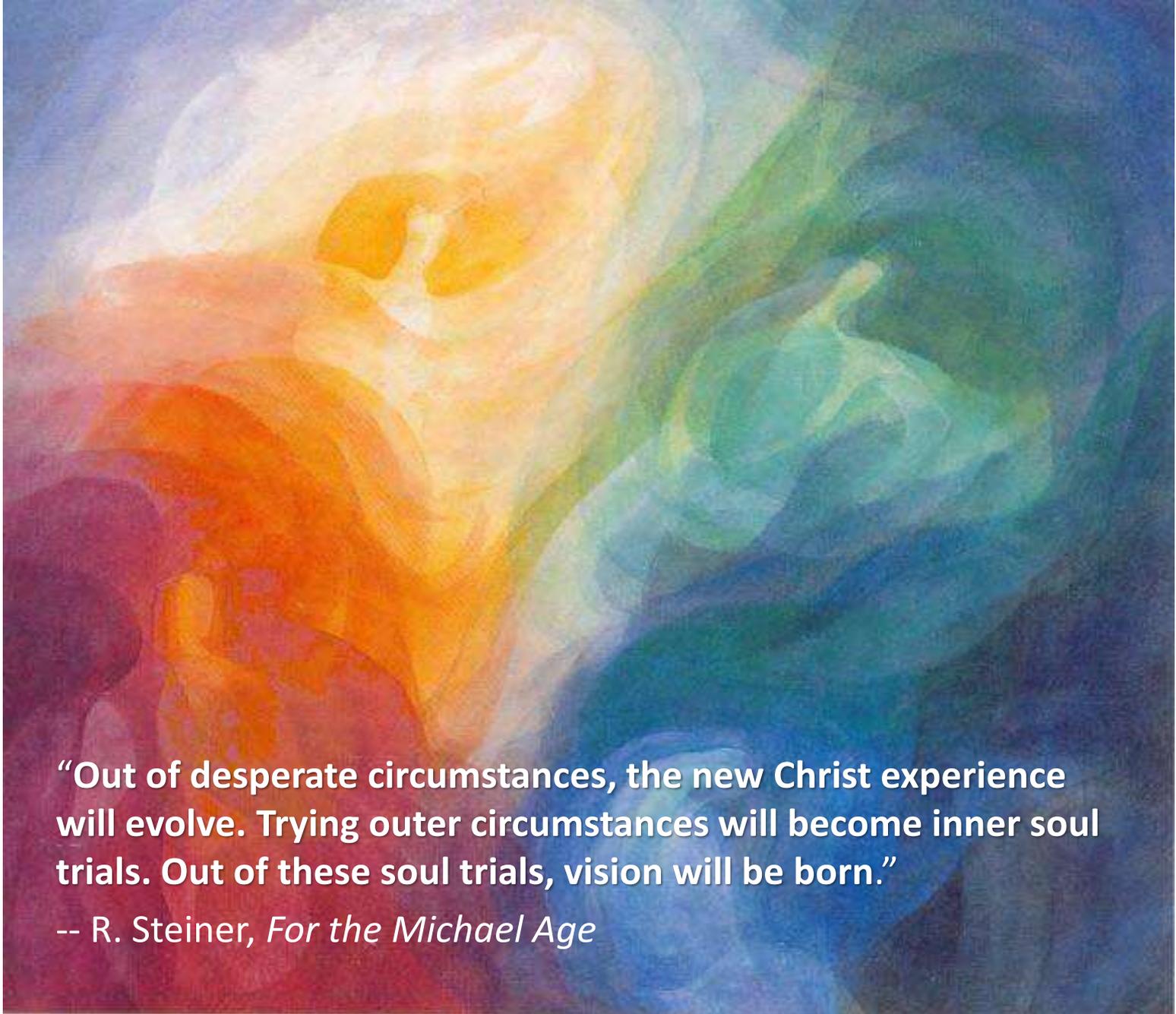
Schedule (times are CDT)

Friday, March 20

- 7:30—9:30 pm: ***The Iron Necessity of Our Technological Age***

Saturday, March 21

- 9:00 - 9:30 Coffee, tea, and social time (*at home*)
- 9:30 - 10:30 ***The Human Double and Its Future***
- 10:30 - 11 Break
- 11 - 12 ***Discussion: Counter-balances, Children & Tech***
- 12 - 1 Lunch (BYO)
- 1 – 2 pm **Lecture: The Three Occultisms, About MysTech**



“Out of desperate circumstances, the new Christ experience will evolve. Trying outer circumstances will become inner soul trials. Out of these soul trials, vision will be born.”

-- R. Steiner, For the Michael Age

About MysTech

CFAE | MysTech: cfae.us > CFAEndeavors > MysTech

- Signup for online courses
- All info on MysTech

Social MysTech: social.mystech.org

- Signup for the social site.

MysTech Journal: rudolfsteinerbookstore.com > BOOKS > Journals & Publications

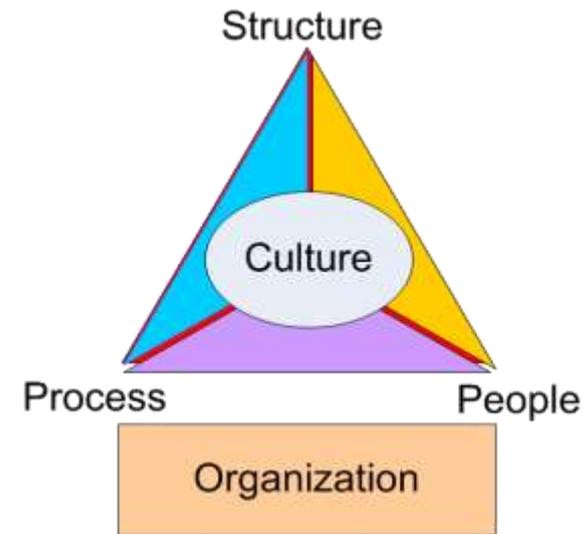
- Purchase single issues
- Purchase subscription

MysTech Membership: rudolfsteinerbookstore.com > About Us > Membership

- Purchase Membership

MysTech Events: cfae.us > Community Events

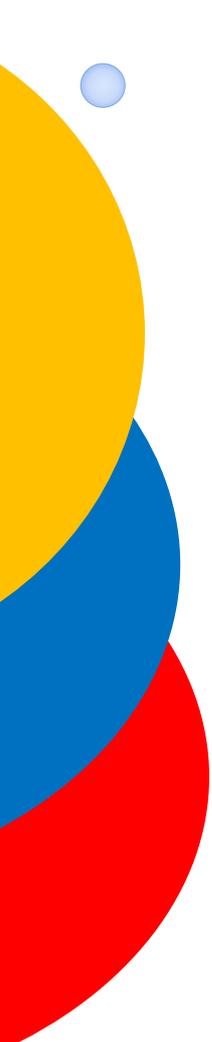
- Past and upcoming events & webinars



Goals of MysTech

- The Who and the How
 - Research
- Education (overcome fears)
 - Online study groups, study guide books available
 - Lectures, workshops, webinars, Facebook, website(s)
 - Journal, newsletter
- Deeds & Seeds
 - Social.mystech.org (social media without data tracking)
 - Counter-forces (3 Occultisms), health, age, 5G, screentime, etc.
 - Threefold Social Organism
- Outreach
 - Other organizations (ETI, Sections, Waldorf, Humane Tech,...)





MysTech: Mysteries of Technology

- Sponsored by The Center of Anthroposophical Endeavors (CFAE) of Seattle, WA. a 501c3
 - Non-profit, started in 1982 as Friends of Anthroposophy
 - Founded other Anthroposophical organizations
 - Hosted hundreds of lectures, workshops, and performances
- MysTech Membership to support R&D
 - Journal, website, classes – outreach, building awareness
 - Inner development – inreach, becoming builders
 - Moral interface to machines – cultivate
- MysTech.co: devoted to cultivating moral technologies
 - Founding meeting June 12, 2017, 10 founding members
 - Exploring waves, resonance, harmonics, boundaries, more

More info at: <http://rudolfsteinerbookstore.com/product/mystech-membership/>



State of MysTech
Work to be Done,
Social.MysTech.org

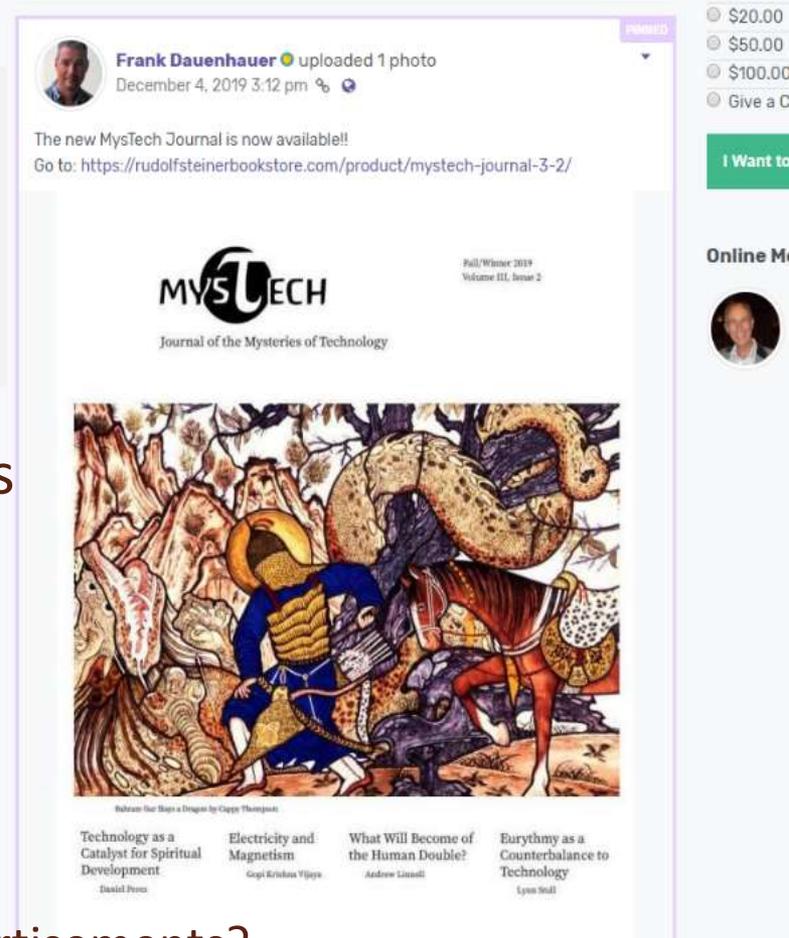
With Andrew Linnell



**Center for
Anthroposophical
Endeavors**

Social .mystech.org

- Pilot launched October 2019
- Common Social Media Features
 - You and others
 - Friends and events
 - Groups
 - Postings and comments
- No data tracking
 - Revenue: Donations alone? Advertisements?
- Perfect for Anthroposophical orgs
- MysTech study groups will move from FB to it in 2020
- Extend platform to (*who?*)

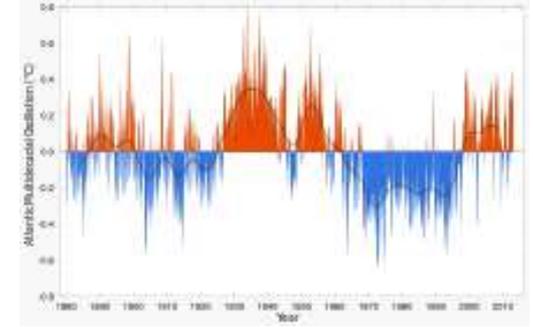


Impulses for MysTech

- Machines that will operate according to moral impulses
 - Moral impulse as free moral deed
- The mechanical & moral must interpenetrate each other
 - The mechanical is nothing without the moral
 - Building now for Jupiter
- Symbolized by the Tau sign – Holy Grail
 - From master craftsman of the inanimate
 - To master craftsman of the living
- Overcoming Tech Fear in Anthroposophy
 - Webinars, study groups, education

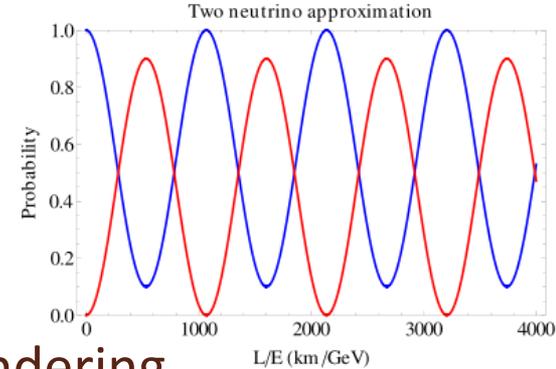


Secrets Disclosed



- “First, there are the capacities having to do with **material occultism**.
- By means of this capacity — and this is precisely the ideal of **British secret societies** — certain **social forms** at present basic within the industrial system shall be set up on an entirely different foundation.
- Every knowing member of these secret circles is aware that, solely by means of certain capacities that are still latent but evolving in man, and with the help of the **law of harmonious oscillations, machines and mechanical constructions and other things can be set in motion**.
- A small indication is to be found in what I connected with the person of **Strader** in my Mystery Dramas.
- These things are at present in **process of development**. They are **guarded as secrets** within those secret circles in the field of material occultism.
- **Motors can be set in motion, into activity, by an insignificant human influence through a knowledge of the corresponding curve of oscillation**. By means of this principle it will be possible to substitute merely mechanical forces for human forces **in many things.**”

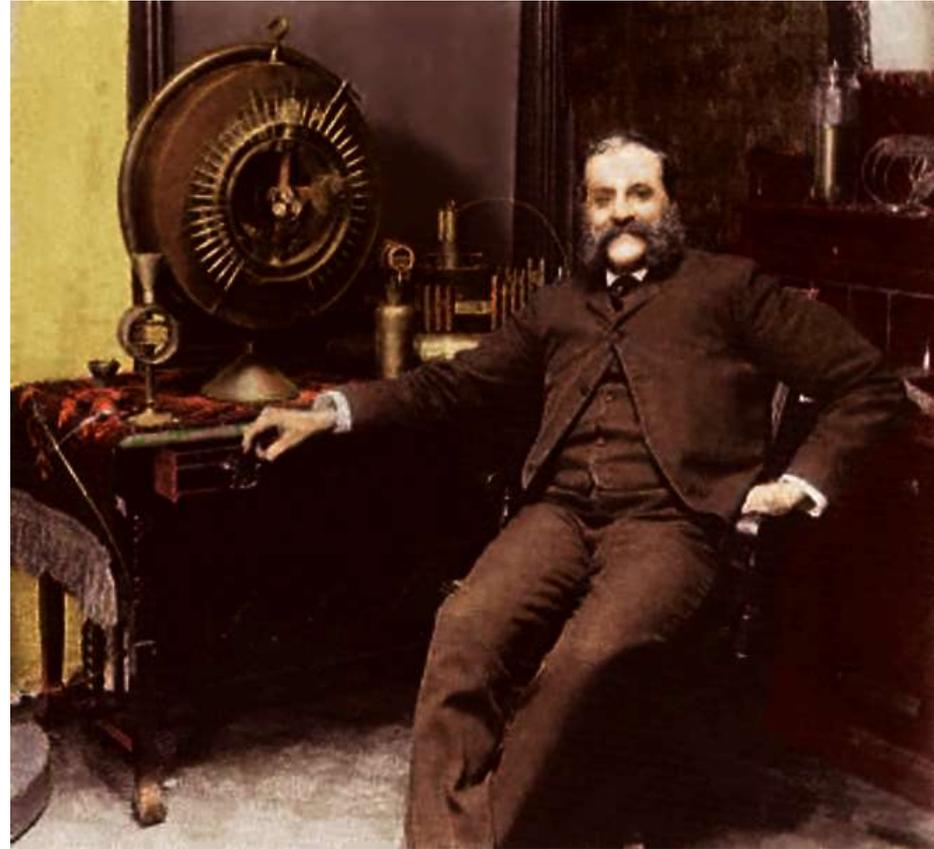
Mechanical Occultism



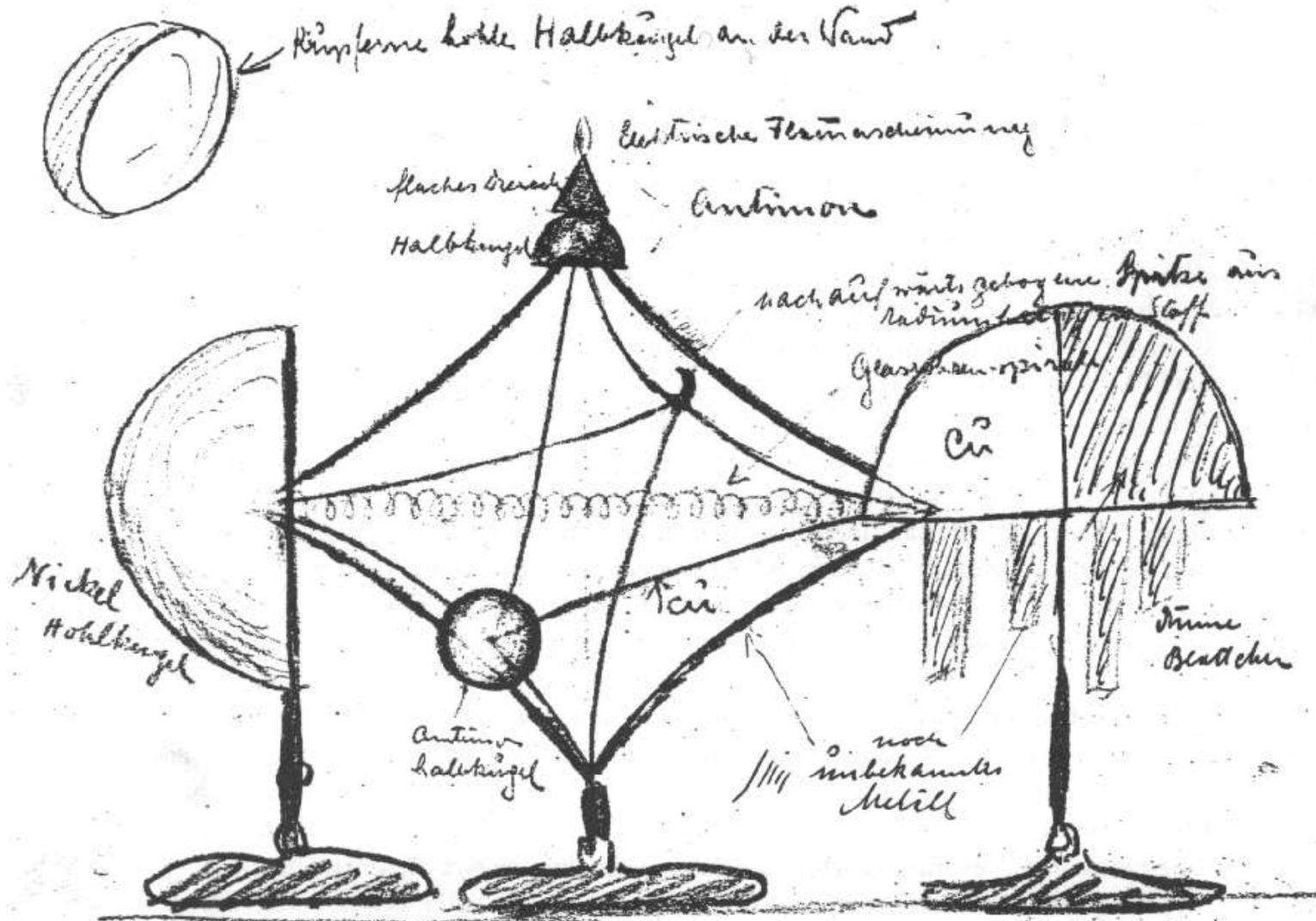
- “The possibility will thus come about of rendering unnecessary nine-tenths of the work of individuals within the regions of the English-speaking peoples.
- **Mechanistic occultism will not only render it possible to do without nine-tenths of the labor still performed at present by human hands, but will give the possibility also of paralyzing every uprising attempted by the then dissatisfied masses of humanity.**
- **The capacity to set motors in motion according to the laws of reciprocal oscillations will develop on a great scale among the English-speaking peoples.**
- This is known in their secret circles, and is counted upon as the means whereby the **mastery over the rest of the population of the earth shall be achieved even in the course of the Fifth PACA.”**
- The Challenge of the Times, Lecture 3, 1Dec1918, Dornach, GA 186

Keely & Resonance

- Mechanical Occultism
 - West
- Frequency & Wavelength
 - As long as we research in mere numbers, we'll not find this resonance
- Keely played **music** to start his machine
- Moral impulse using
 - Life ether, tone ether, and light ether
 - Lifted heavy objects

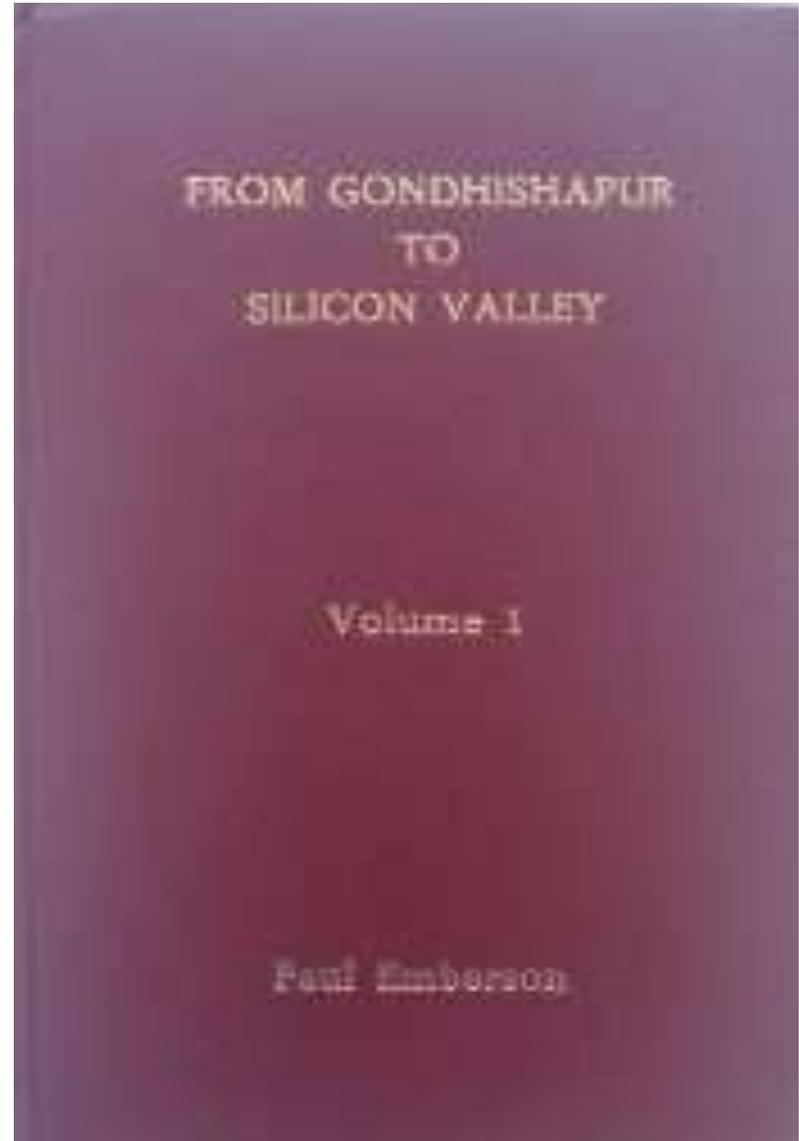


Towards Keely & Strader Machines



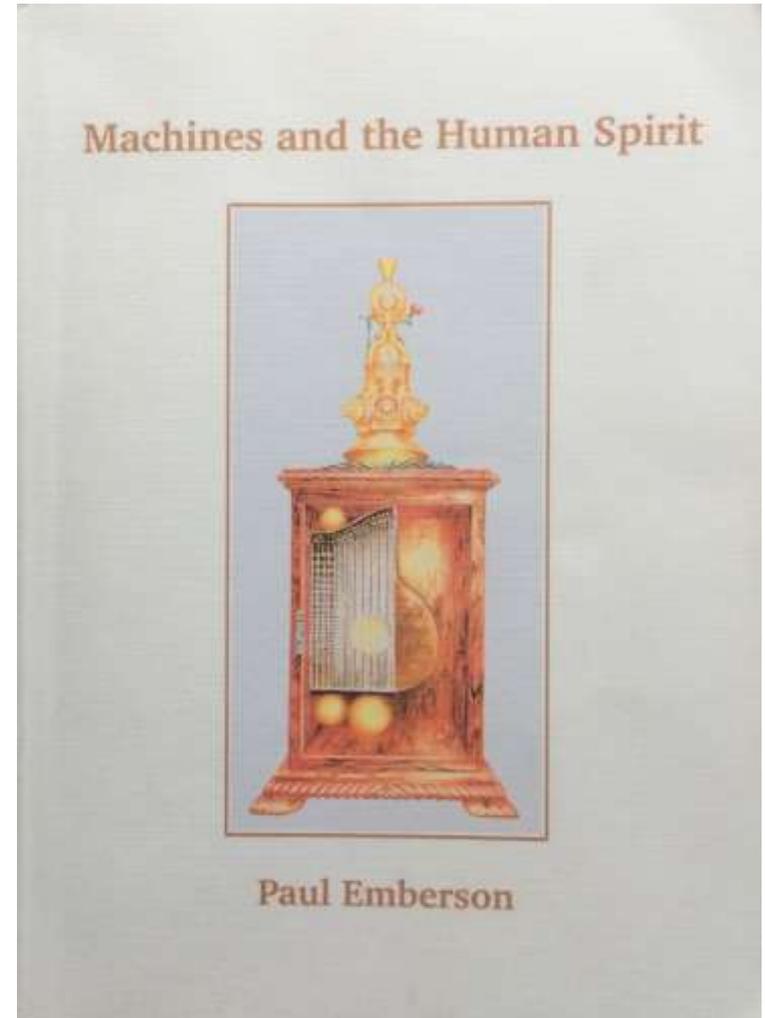
One Perspective

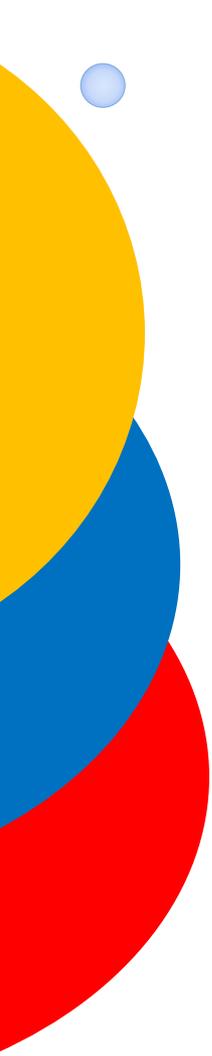
- “One of the most wide-spread delusions of our time is that binary computers were developed by human beings to serve mankind.
- This is not the case. **Binary computers were developed by the ahrimanic double in man, to serve Sorat and his hosts.**
- Man was but the instrument of the double's activity. Only ahrimanic beings have a comprehensive grasp of what is happening in computer technology. Men are lulled to sleep by visions of knowledge and power.”
- “Computers will physically be semi-living beings ... Indeed, we may say **this incarnation of Ahriman is the incarnation of the Binary Beast.**”



Moral Technology?

- “**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**”
- 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”
- Spirits of Birth and Death

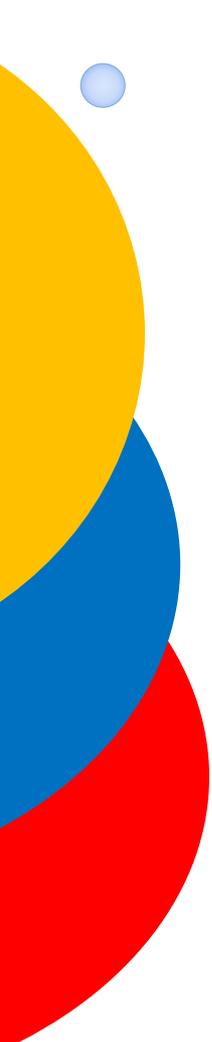




Must We Merge With Machines?

“I’d rather not” ... Eric Utne, 2011

- Google, the company whose maxim is “Don’t be evil,” has given itself over to a vision of the future in which human and machine morph into a monstrous hybrid.
- As Google’s cofounder Sergey Brin recently declared, “We want to make Google the third half of your brain.”
- Brin and Larry Page, the visionary entrepreneurs who together founded Google, are unabashed enthusiasts and promoters of what has come to be known as “**the Singularity**,” a vision of the near future in which human beings and machines merge so that illness, old age, and even death become things of the past.



Anthroposophy Answers this Q

Yes, we must! ***What???***

1. Ending of the Age of Incarnation (infertility) < 6000 CE
 - But physical earthly life must continue another 2000 years
 - Procreation through the larynx comes much, much later
2. “Weld” with machine
 - “The welding together of the human nature with the mechanical nature will be a problem of great significance for the remainder of earthly evolution.”
 - “It is not a question of the *what* in this case; the *what* is sure to come. It is a question of the *how*, how one tackles these situations. The *what* lies in the meaning of earthly evolution. “
3. Giving Ahrimanic beings a physical embodiment
4. Moral and mechanical belong together

Attachment of a Second Being

“During the **course of the Fifth PACA**, so many problems have lost all inner, vital warmth. The countless questions which confront us when we study Spiritual Science with any depth, simply do not exist for the modern man with his materialistic outlook.

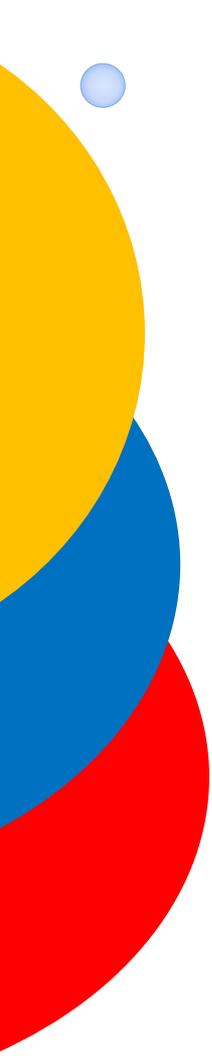
“**A different form of experience will come to the man of modern times.** In his own opinion he knows ever so well; he observes the material world, **uses his *intellect* to establish the interconnections between its phenomena** and believes that all its riddles are solved in this way, never realizing that he is simply groping in a phantasmagoria.

“**But this way of working coarsens and dries up his ether-body,** with the ultimate result that the [Ahrimanic] powers, ***like a second nature, will attach themselves to him.***

The Balance in the World and Man, Lucifer and Ahriman, Rudolf Steiner

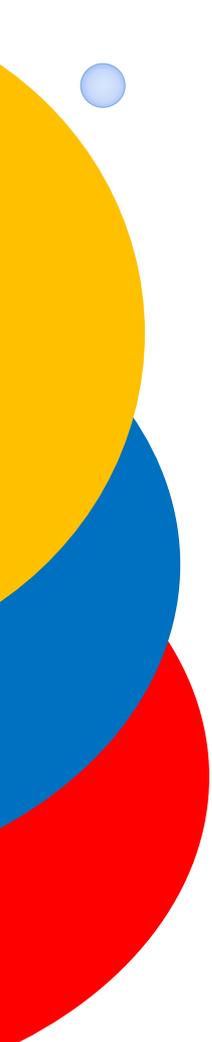
Note similarity to Angel as a second being as well as the Double





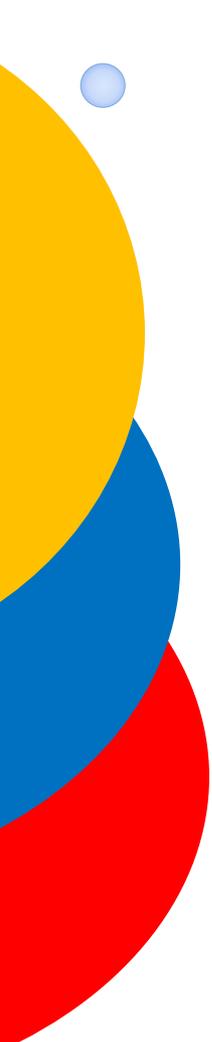
Merging Man and Machine

- “Now I will turn again to the fact that in this 5th PACA humanity will have to find ways of **dealing with great life-problems** which in a certain sense were veiled by the wisdom of the past.
- One of these great problems will be concerned with finding out how to **place the spiritual *etheric* forces at the service of practical life.**
- I have told you that in this epoch we have to solve the problem of how the **radiations from human *states of mind* are carried over into machines**; of how human beings are to be brought into relation with an **environment which must become increasingly *mechanized*.**
- – *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178



Wrong and Right ways

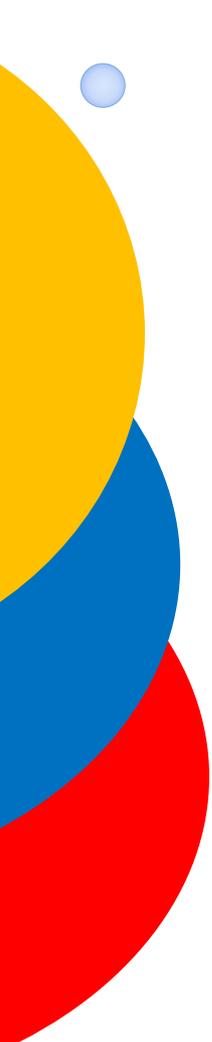
- “The **wise beings of the cosmos** will enter into the struggle
- One side will use the **morning and evening** processes in the way I have indicated; the **West** will prefer the **midday** processes, shutting out the morning and evening ones; and the **East** will prefer the **midnight** ones.
- Men will no longer manufacture substances on the basis merely of chemical attraction and repulsion; they will know that different substances arise according to whether they are made with morning and evening processes, or with midday and midnight ones. It will be known that such substances act in a quite different way on the triad: God, virtue, and immortality — gold, health, and prolongation of life.
- When the forces of **Pisces and Virgo** act in co-operation, **nothing wrongful** can be brought into being.” – *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178



Wrong Polarity through Gemini

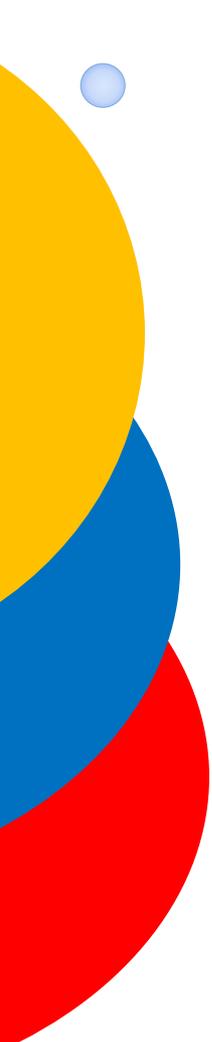
Magnetism and the Ahrimanic Double

- “These forces, however, will be left aside by those who try to achieve their whole purpose through the polaric duality of positive and negative forces.
- The forces which enable the spiritual to stream down to earth with the aid of positive and negative magnetism come from Gemini;
- **Midday forces**
- In ancient times it was known that cosmic influences were involved in this, and to-day even exoteric scientists are aware that in some or other way **positive and negative magnetism** lie behind Gemini in the Zodiac.
- The aim will be to paralyze all that could be gained through a revelation of the true duality in the cosmos — to paralyze it in a materialistic, egotistic way by means of the forces which stream in particularly from Gemini and can be placed entirely at the service of the **human “Double.”**
- *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178



Wrong and Right ways

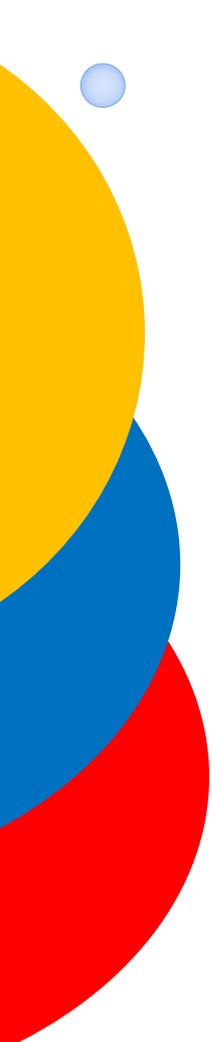
- “But from the other side many endeavors will be made to **introduce the dead** into human existence by **artificial means**. Along the ***indirect path through Gemini*** the dead will be led into human life, with the result that **human vibrations will pass over into the mechanism of machines and will continue to vibrate there** in a quite definite way. The **cosmos will impart motion to the machines** by ***the indirect path*** I have indicated.”
- – *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178



Wrong Polarity through Sagittarius

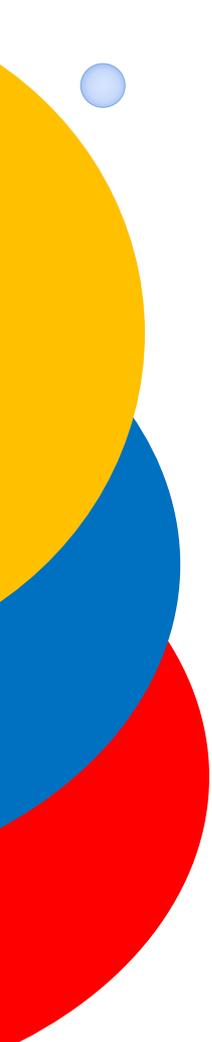
Duality of Human Nature (Centaur)

- “Other **brotherhoods**, concerned above all to divert attention from the Mystery of Golgotha, will try to make use of the **duality in human nature** — the duality which in our epoch embraces man as a unity, but includes within him his lower animal nature [sacrifice of Chiron].
- A human being is really a **centaur** in a certain sense: his humanity rests on his lower animal nature in its **astral** form [Chiron]
- This working together of the **duality** in man gives rise to a **duality of forces**. This duality of forces will be utilized particularly by certain egotistic brotherhoods, chiefly from the side of **India and the East**, in order to **mislead eastern Europe**, whose task it is to prepare for the Sixth PACA.
- **Midnight forces**
- And this will be done with the aid of the forces which work in from Sagittarius.”
- *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178



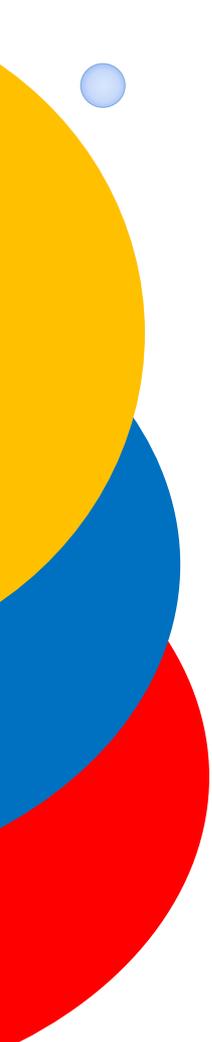
Wrong and Right ways

- “It will thus be essential, when these problems emerge, that no improper methods should be applied to them, but **only those elemental forces which belong to nature on their own account**, and great care will have to be taken **not to introduce improper forces** into the realm of machines.”
- -- *The Wrong and Right Use of Esoteric Knowledge*, lecture 3, 25Nov1917, Dornach, GA 178
- **Summary**
 - Right: morning & evening (Pisces and Virgo)
 - Wrong: mid-day & midnight (Gemini and Sagittarius)



HOW TO RECEIVE AHRIMAN'S GIFTS?

- “And how can we train ourselves to do this? By **permeating** what takes **ahrimanic** form within us with a strongly **luciferic** element.
- What is it that arises in modern people in an Ahrimanic form? It is his knowledge of the outer world. There is nothing more ahrimanic than this **knowledge of the material world**, for it is sheer **illusion**.
- Nevertheless if the fata morgana that arises out of chemistry, out of physics, out of astronomy and the like can fill us with **fiery enthusiasm** and interest, then through our interest — which is itself luciferic — **we can wrest from Ahriman what is his own.**
 - *Influences of Lucifer/Ahriman*, Lecture Two, GA191



Freedom must be Real

“He, for the salvation of mankind, has united His own living Being with the deadness of divine existence in the kingdom of Ahriman. Mankind have thus the twofold possibility, which is the pledge of their freedom: Either to

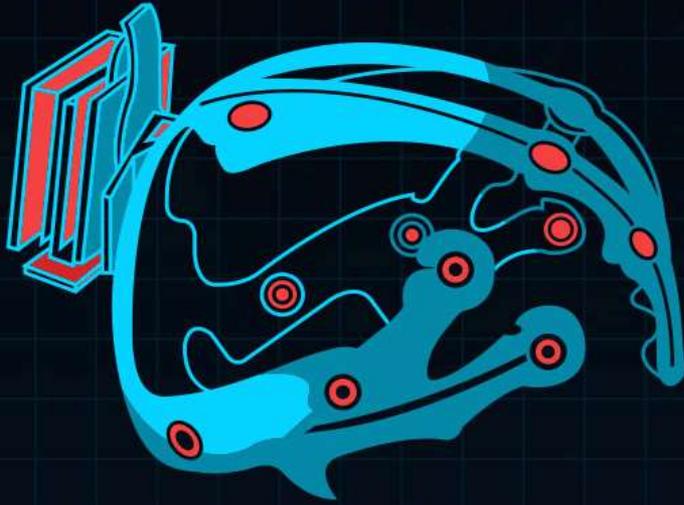
1. **Turn to Christ** in that mind and spirit which was theirs subconsciously when they came down from the vision of supersensible life in the Spirit until they could use Intelligence, — but to **do this now** in consciousness.
2. **Detach from Spirit-life** to seek to enjoy the sense of themselves — and thereby fall a prey to the Powers of Ahriman and be carried in the **Ahrimanic direction of evolution.**”

- *Michael Mystery*, Chapter IV, Michael's Task in the Sphere of Ahriman, GA 26



RESEARCH AVENUES

Brain-Computer Interfaces



NONINVASIVE

Involves simple wearables that register the EM transmissions of neurons, with no expensive or dangerous surgery needed. This technique is certainly easier, but suffers from poor resolution caused by the skull's interference with signals.

PARTIALLY INVASIVE

Devices are implanted within the skull but not within the brain tissues. Produce higher quality signals than noninvasive techniques by circumventing the skull's dampening effect on transmissions, and has less risk of scar tissue buildup.



Helping with Locked-in syndrome

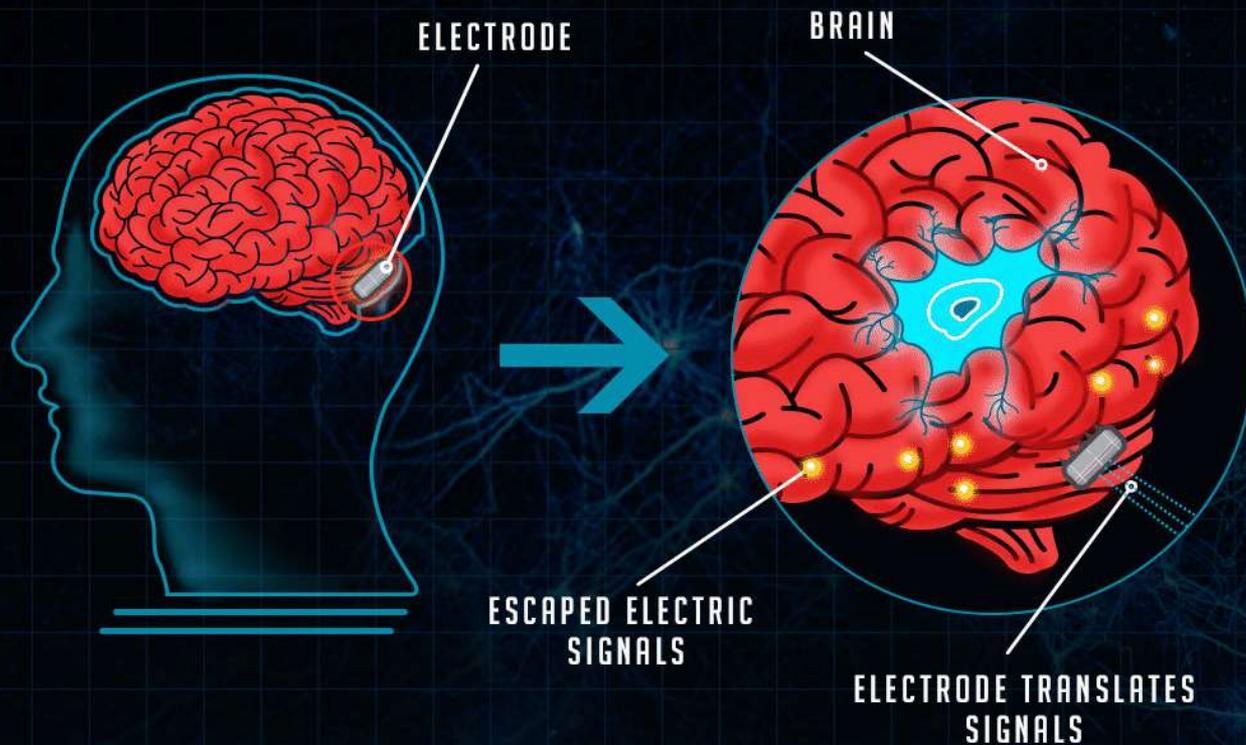
- Uses near-infrared spectroscopy (NIRS) and electroencephalography (EEG) to measure blood oxygenation and vibratory activity in the brain
- After calibration, the patients were able to respond questions with a "yes" or "no" using their 'thoughts'
- Slippery slope



Brain-Computer Interfaces

INVASIVE

Signal-transmitting devices are implanted directly in the brain's gray matter. This method produces the highest quality signals, but scar tissue buildup can cause signal degradation.

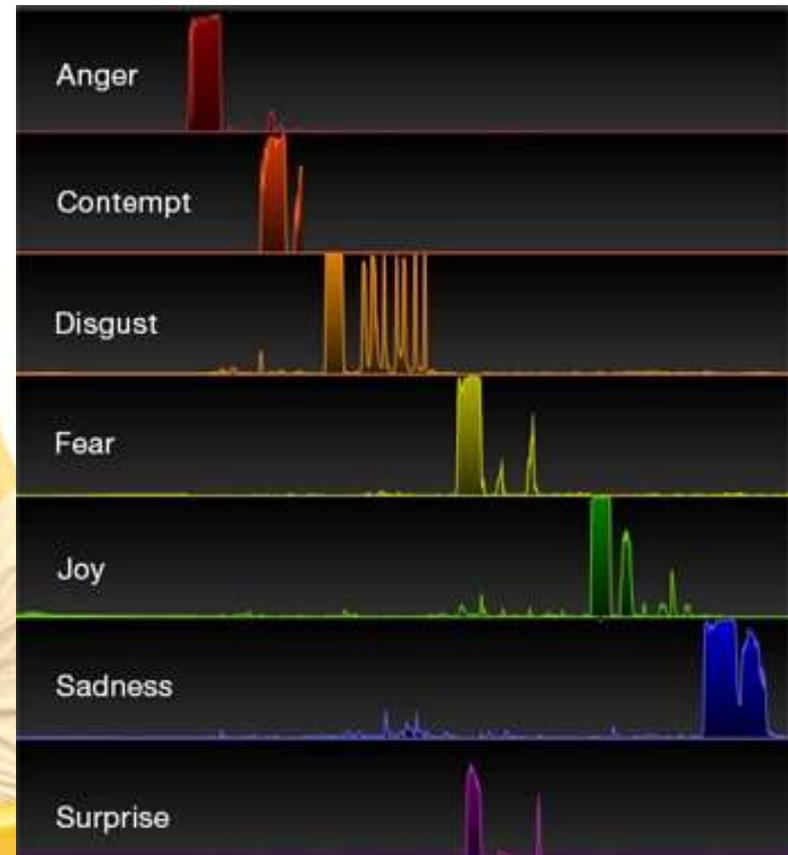


Brain-Computer Interfaces

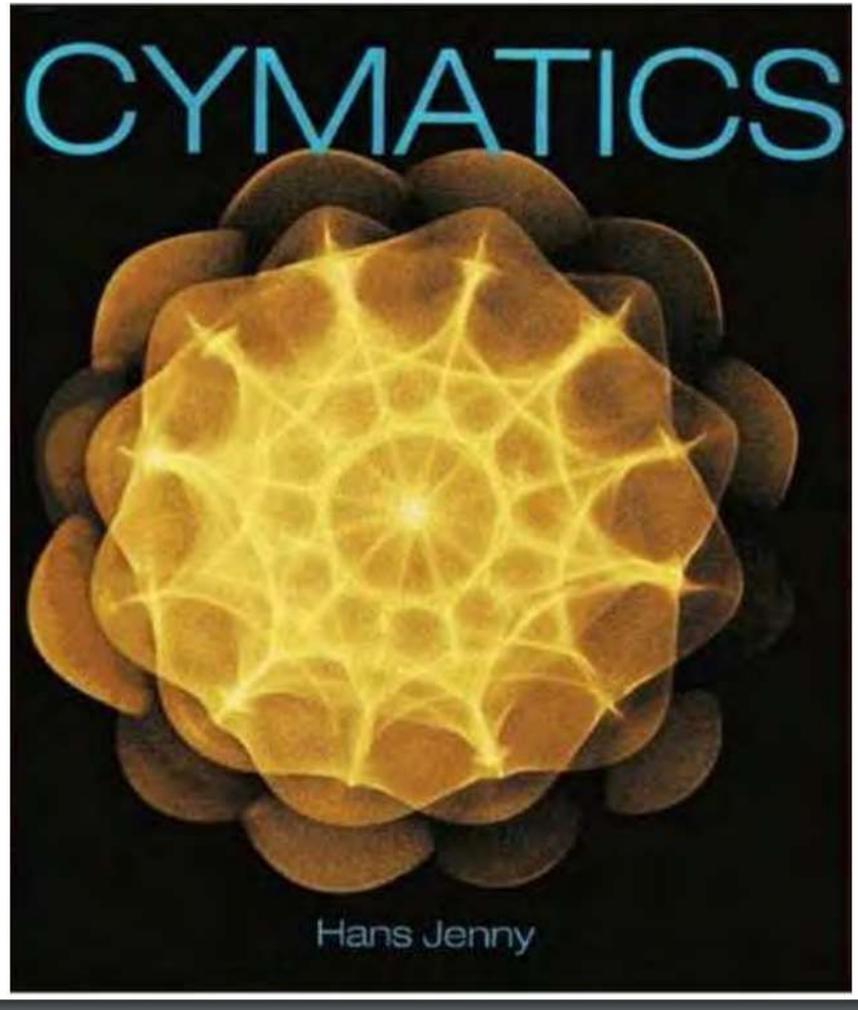
4. External, **Body**-Computer Interface

- Not quite Moral Tech
 - Interface, not a ‘Driver’
- Signatures
- Microsoft [Project Oxford](#)
- Apple [Emotient](#)
- MIT [CSAIL](#)

Our Device

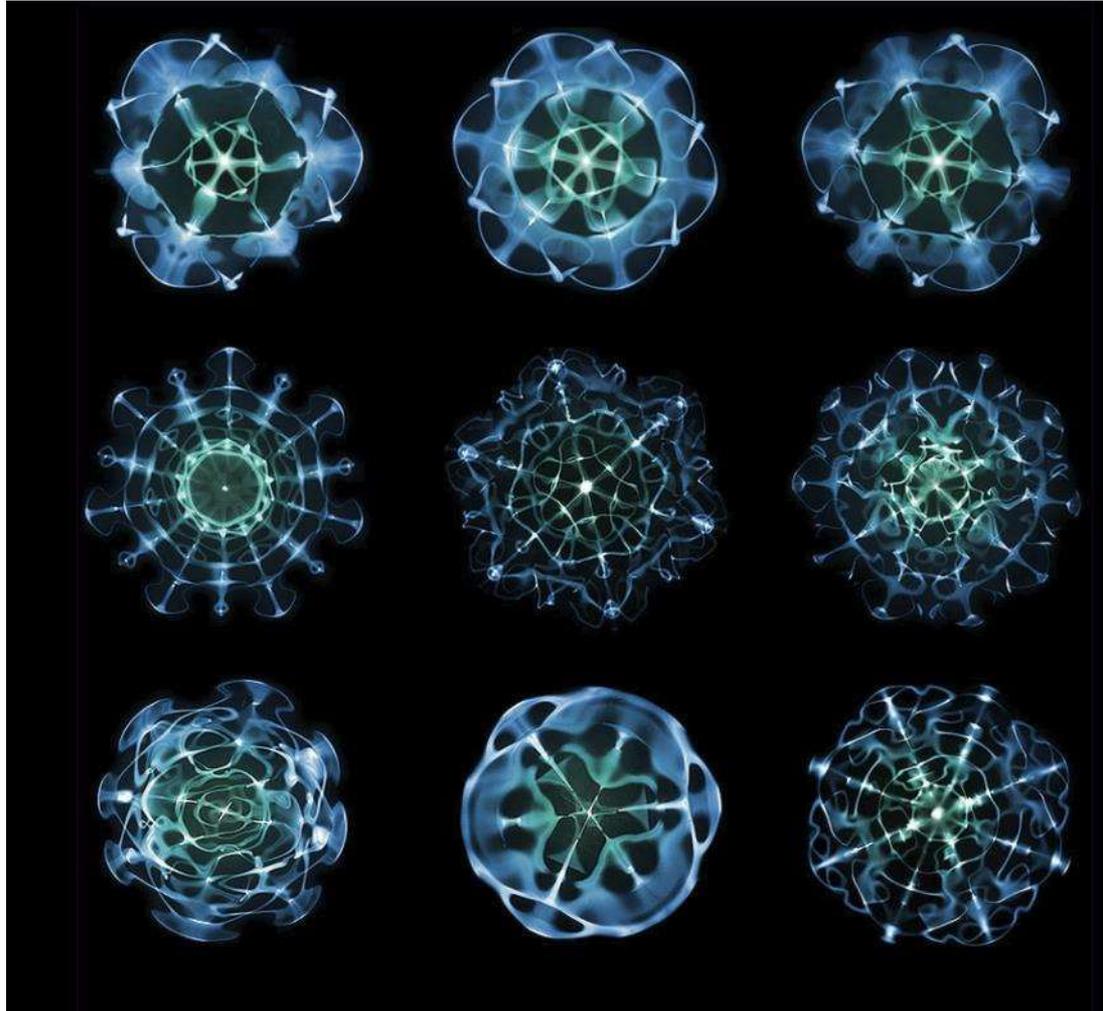


MysTech Pioneer: Hans Jenny

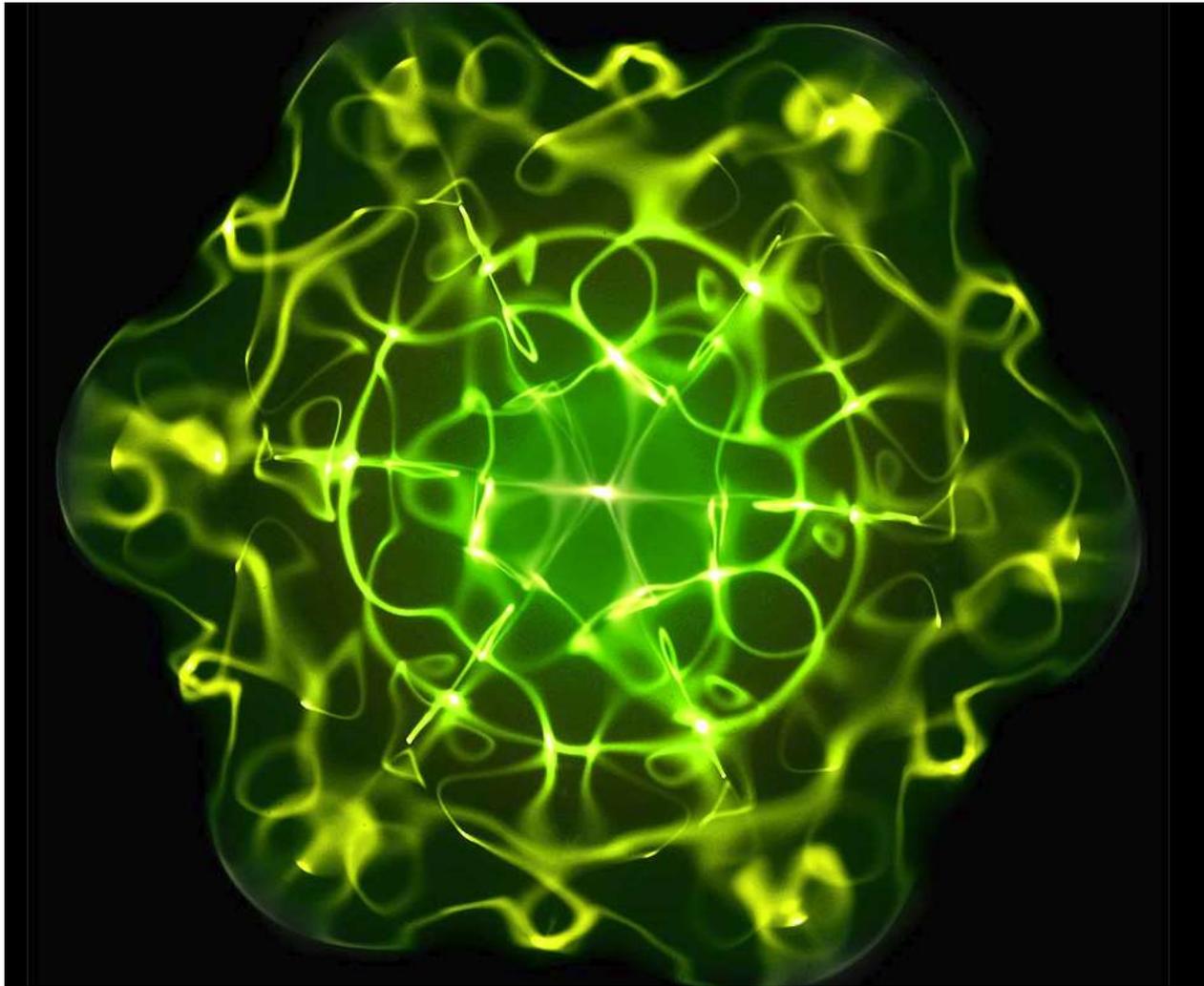
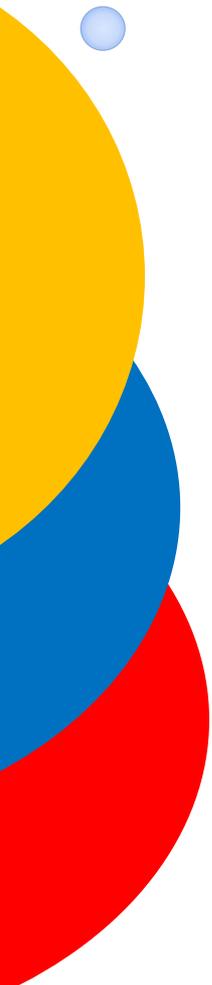


Cymatics.org

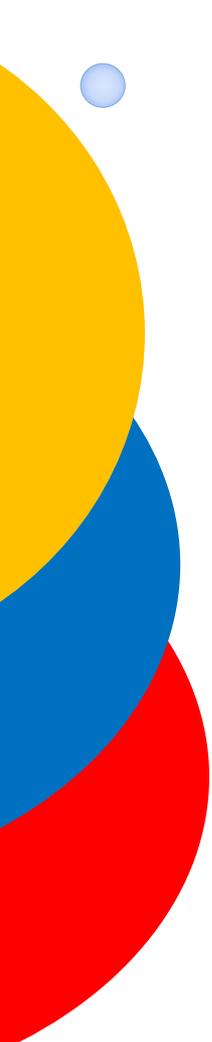
14hz to
30hz
sweep.
Square
wave



Cymatics.org



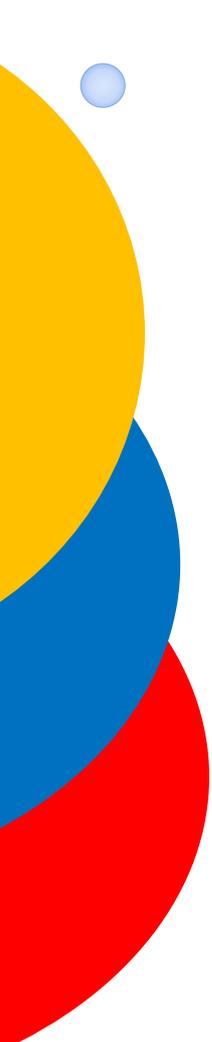
Sine
wave &
alcohol



A Goal of MysTech: Counter-forces

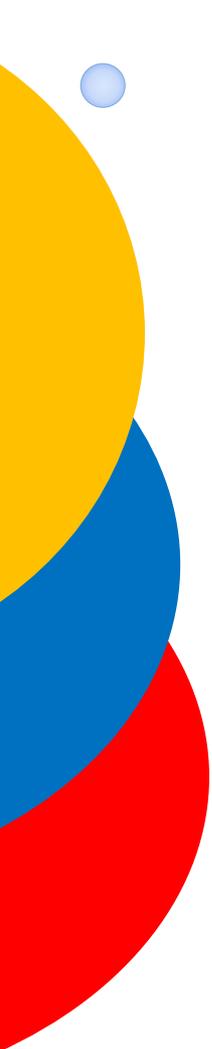
- “Do you imagine, when we imitate it here on a small scale and let it ray out again into the cosmic spaces, that it is of no significance? It is of very great significance for the cosmos.
- Here you can see at once: even the vibrations are given to the demon, whereby he may unfold his activity out into the cosmic spaces.”
- “It is not a question of abolition — not even of hostile criticism — for it goes without saying, these things are justified. Yet, if on the one hand these things must emerge in the progress of mankind, it is indeed a question on the other hand of our creating **counter-forces** to bring about the necessary **balance**.
- Compensating forces must be created, and that can only be when humanity understands once more the principle of Christ and finds the way to Christ.”

- *The Relation of Man to the Hierarchies*, 26Nov1916, Dornach, GA 172



When is Modern Technology OK to Use?

- Transition Era: are children differently ‘equipped’?
- Let the foundations be constructed first
 - From where does a baby come?
- When the human “motor system” is ready (after)
 - Age 0: physical body born. Age 7: etheric body. 14: astral body
 - Importance of Play, Imitation of the Human
 - Lead by example like a god
- When what is built from above is ready for Earthly life
 - Puberty [Saturn&Sun then Moon&Earth]
- Importance of Movement
 - Postural alignment. Eurythmy. Rhythms. Harmonic oscillations.



Known but unspoken tech problems

Source: [HuffingtonPost](#)

1. Rapid brain growth continues until age 21
 - Delayed development results from insufficient movement
 - Epidemic obesity correlates with video game use
2. Sleep deprivation
 - 60% of parents do not supervise their child's technology usage, and 75% of children are allowed technology in their bedrooms
3. Mental illness
 - Technology overuse as a causal factor in rising rates of child depression, anxiety, attachment disorder, attention deficit, autism, bipolar disorder, psychosis
4. Aggression from violent media content
 - Poor manners, irreverent
5. Digital dementia: decreased concentration ability
6. Addiction
7. EMR emissions (cordless phone, WiFi router)

Children and Technology

Source: HuffingtonPost

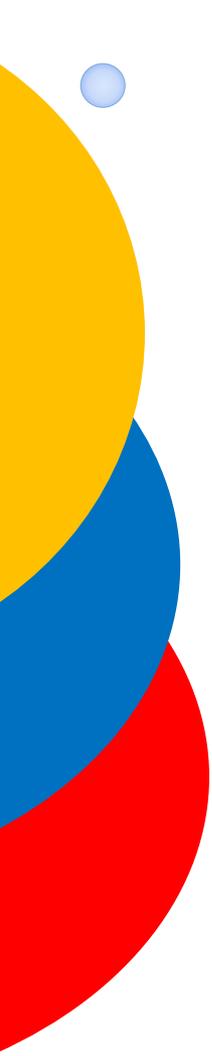
Developmental Age	How Much?	Non-violent TV	Handheld devices	Non-violent video games	Violent video games	Online violent video games and or pornography
0-2 years	none	never	never	never	never	never
3-5 years	1 hour/day	✓	never	never	never	never
6-12 years	2 hours/day	✓	never	never	never	never
13-18 years	2 hours/day	✓	✓	limit to 30 minutes/day		never



Children and Technology

- **Screen (blue light) time**
 - Disrupts sleep, desynchs circadian rhythm
 - Desensitized the brain's reward system
 - Light-at-night linked to depression
 - Stress reactions, hormonal, irritability, addiction
 - Overloads sensory system, fractures attention, depletes mental reserves
 - Limits movement, physical activity, and “green time”
- [“Screentime is Making Kids Moody, Crazy, and Lazy”](#)
 - Psychology Today, Victoria Dunckley, M.D.
 - **“Wired and tired”**
 - Chronic high arousal levels impact memory and relations
- [Digital Heroin](#), [Glow Kids](#)
- Let them **recapitulate** human history
 - Up to grade 8





Passive VS Active Screen Time

From

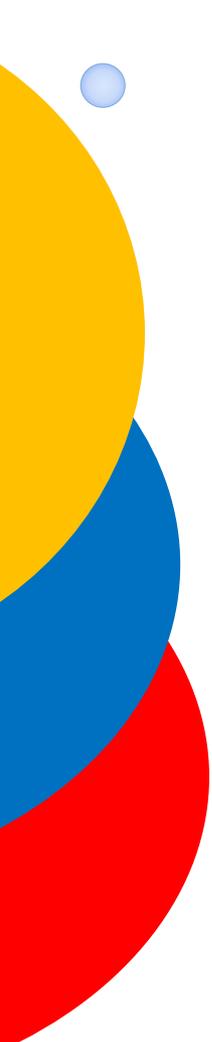
<http://education.penelopetrunk.com/2013/04/11/kids-who-play-video-games-do-better-as-adults/>

- Video games are mentally active
- Research showing:
 - Gamers are better at jobs that are intellectual
 - Gamers do better in jobs that are active
 - Gamers are happier over the long run
- TV is a bigger culprit (of passive, captured mind)

Cell Phone Safety

- Limit your cell phone use
 - Especially when reception is weak
 - Intensity $\sim 1/\text{distance}^2$
- Keep your phone distant, especially from organs
 - Where do you keep your phone?
 - Use the speaker phone or use a headset
 - Wireless and wired headsets emit EMFs even when you are not using your phone: Bluetooth vs 5G
 - Send text messages
 - Do not **sleep** with your cell phone near – keep sleep sacred
- No Children Allowed: Cocaine for Kids
 - <https://www.facebook.com/HealthForAllKids/videos/301316260295203/>





EMR Sources

- Wireless (Wi-Fi) networks
- Smart meters
- Cell Phones
- Bluetooth devices
- Power lines
- Computers and printers
- Microwave ovens
- MRIs

Protections

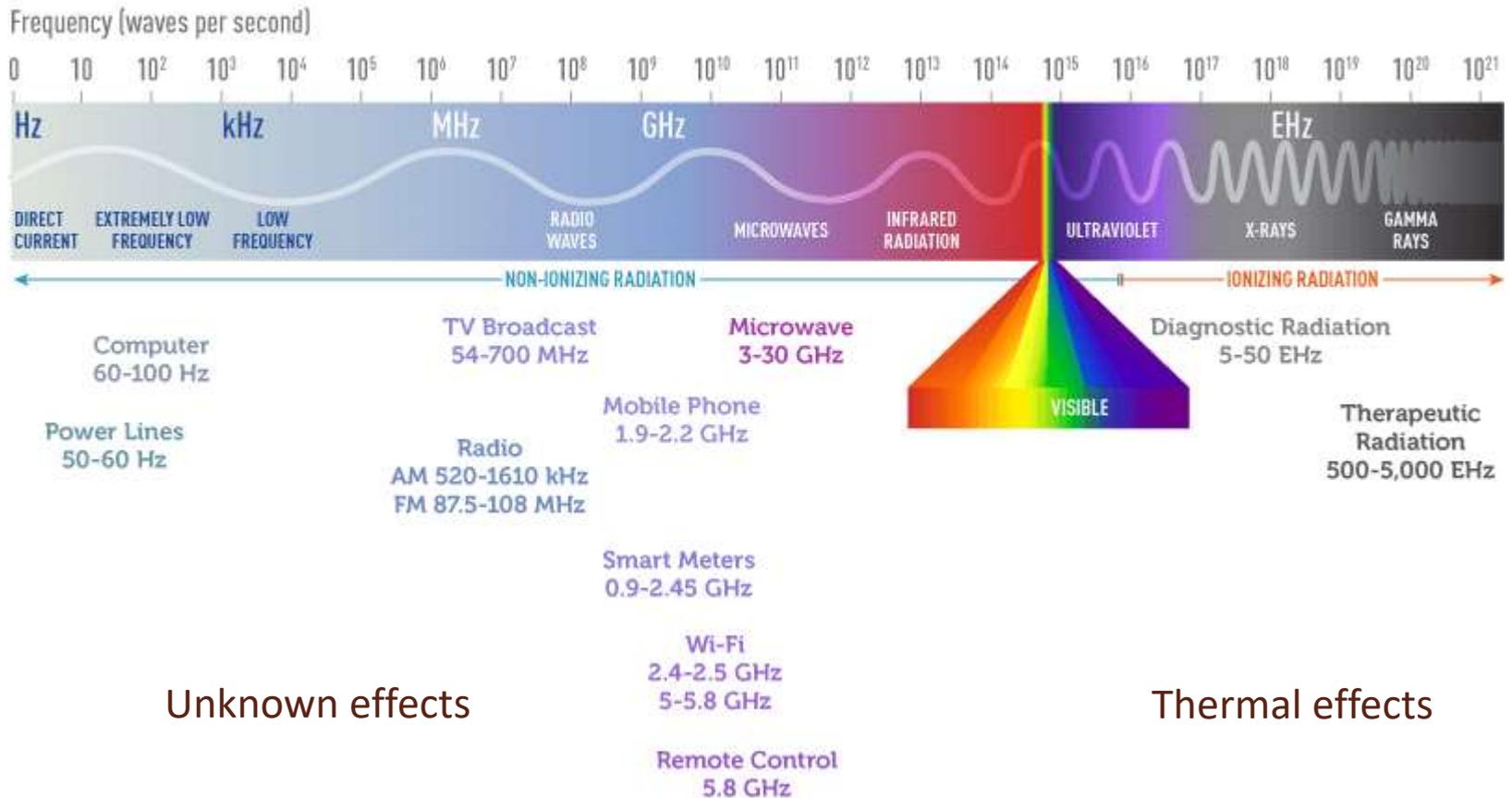
- Time of exposure
- Distance from source
- Shielding
- Spiritual development(?)

Types

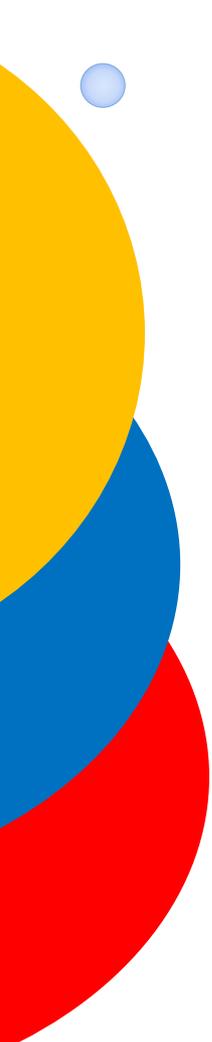
- **ELF: Extremely low frequencies**
 - Time-varying electromagnetic fields e.g. produced by electrical appliances
 - Frequencies up to 300 Hz
 - Electricity power supply (60 or 50 Hz)
- **IF: Intermediate Frequencies**
 - 300 Hz to 10 MHz
 - Computer screens, anti-theft devices and security systems
- **RF: Radio frequencies**
 - 10 MHz to 300 GHz
 - Radio, television, radar, cell & cordless phones, microwaves

Governments mandate what frequency can be used

Electromagnetic Spectrum



Steiner indicated that this EMR linear spectrum is invalid.



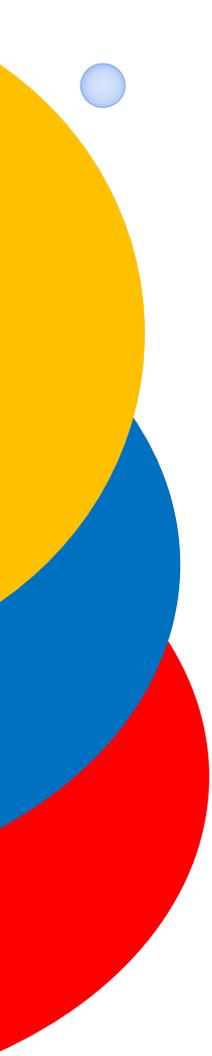
Electromagnetic Hypersensitivity

Study describes a science-based protocol for evaluating patients for electromagnetic hypersensitivity (EHS)

- **EHS** has been *mischaracterized as a psychological issue*, resulting in profound suffering and violations of basic human rights
- "These different tests can be performed under less polluted, environmentally controlled conditions to diagnose chemical and electrical sensitivity precisely"
- Takes the guess work out of the diagnosis
 - Performed in 30,000 patients seen at the EHC-D in the last 35 years
- "The pitfalls of ignoring the principles and facts developed,...can lead to errors in diagnosis and treatment"

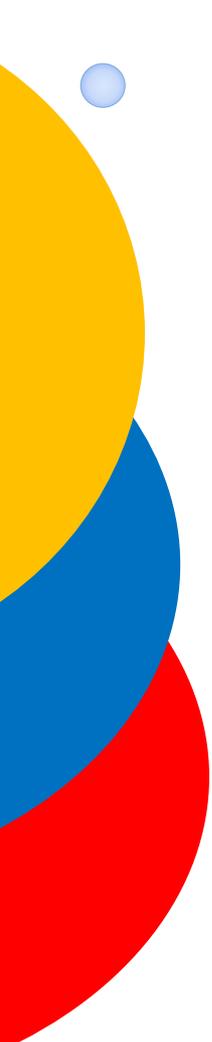
Source: Dr. William Rea of the American Academy of Environmental Medicine article: *History of Chemical Sensitivity and Diagnosis*

- <http://www.degruyter.com/downloadpdf/j/reveh.ahead-of-print/reveh-2015-0021/reveh-2015-0021.xml>



Possible Issues

- Rarely immediate health issue (other than headache)
 - 2016: Risk of Glioma (tumor in “gluey” tissue of the brain)
- Neurological (NDD) – contributor to dementia
 - Dr. Nora D. Volkow, National Institute on Drug Abuse: “changes in brain glucose metabolism after cell phone use”
- Cancer (especially breast)
 - 2011: WHO listed cell phone radiation as a 2B carcinogen
- Immune system & blood-filters (toxins pass through ‘holes’)
- References
 - <https://draxe.com/electromagnetic-radiation/>
 - <http://www.trueactivist.com/10-ways-to-protect-against-emf-emissions/>
 - <https://www.globalhealingcenter.com/natural-health/protect-your-house-emf-pollution/>
 - <http://articles.mercola.com/sites/articles/archive/2009/08/25/simple-inexpensive-solution-to-radically-lower-emf-exposure.aspx>



Sensible counter-balances to 5G

This is not a medical list, not a protection list:

- Walk at least an hour a day outside. Best if done with a buddy for conversation at done at the same time everyday to set a rhythm (and thus to experience the yearly rhythms). Absorption of sunshine and clean air is key here. No sunglasses.
- Movement exercises such as eurythmy (e.g. Halleluiah, planets, I think speech) or yoga
- Music - live, playing, enjoying, being uplifted (again a social aspect is best) – Art Time.
- Screen time and placement - 20/20/20 rule. Have a window behind or near where your computer screen is placed. After every 20 minutes of staring at a screen (fixed distance), look away at something at least 20 yards away for at least 20 seconds.
- Stop screen time an hour before sleep time. Take a warm bath with essential oils. Read from a book or meditate (e.g. review of one's day)
- Follow all the safety rules regarding cell phones (never hold it to one's ears, never carry next to one's skin, etc.)
- Ensure your bedroom is EMR-free. If not, turn off your router at night. Make sleep sacred.
- Clean, healthy water for drinking (not from a plastic bottle). Never microwave food/water.
- Diet: the death-forces from wireless need to be met with as much life-forces as possible, thus live foodUse sprouted (non-gmo) grains for breakfast (use the grain of the day) - sprouting grains is easy and involves you in a life process
- Lifestyle reexamination: does one seek entertainment as a consumption goal? Can one cancel a TV show and use the time to be creative? Art? Baking? Social interaction? Hobby?
- I believe shifting from fear and need for protection to a call-to-duty and counter-balances is the healthy approach.

Remedies

- Generational differences
- EMR-“free” zones in your home
 - Children’s bedroom (no wireless monitors)
 - Ethernet cables or turn off Wi-Fi at night
- Where you carry it (mobile phone)
 - High EMR while talking – use speakerphone
 - Don’t sleep with your phone or carry close to body
- Movement (vs longing for comfort)
 - Mind/Soul – passive vs active
 - Body and posture – wholeness in movement, standing desks
 - Senses – move your focus, variation (temperature, distance, ...)
 - Etheric exercises
- Lifestyle (longing to be entertained vs to do)
 - Fasting, friends, food, nature, ...
 - Diet: High Oxygen Radical Absorbance Capacity (ORAC) foods



Recommendations



1. Measure your home's EMR
 - Android [app](#) (Kirlian Photography)
 - iPhone [app](#) (Fallen Angel Creations)
2. Place screen near window – look outside often
 - 20-20-20 rule: Every 20 minutes, look at something at least 20 feet away for 20 seconds
 - Go everyday, same time, for an hour walk
3. Get up once per hour, 10K steps per day
 - Move, get tea
 - Barefoot on the earth
4. Shut down at night
 - And at dinner, make it engaging
5. Annual blood tests

Q&A



Jennifer Gidley

- Australian psychologist and educator
- University of Technology, Sydney
 - Institute of Sustainable Futures
- President of the *World Futures Studies Federation*
- On Australian **Steiner** National Curriculum Project team
- “We are at a critical point today in research into human futures. **Two divergent streams** show up in the human futures conversations. Which direction we choose will also decide the fate of earth futures in the sense of **Earth’s dual role as home for humans, and habitat for life. ...**



Comparing our 2 Views of Us



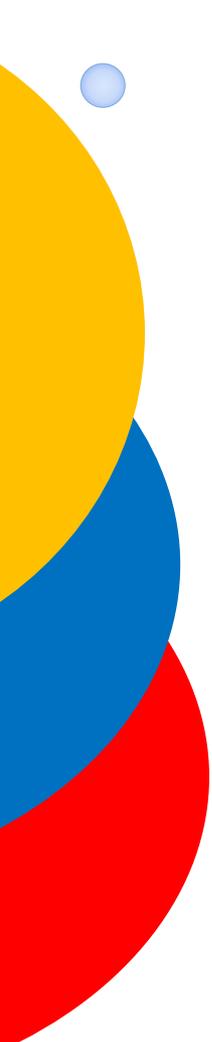
1. **Scientific:** dehumanising and atomistic

- based on a mechanistic, behaviourist **model of the human being**, with a thin cybernetic view of intelligence.
- **Transhumanist** ambition to create future techno-humans is anti-human and anti-evolutionary.
- Involves technological, biological, & genetic enhancement of us

2. **Humanitarian:** philosophical and ecological

- based on a view of humans as kind, fair, consciously evolving
- peaceful agents of change with a responsibility to maintain the ecological balance between humans, Earth, and cosmos”

-- *Contrasting Futures for Humanity: Technotopian or Human-Centred?*
Paradigm Explorer, Sept. 2017



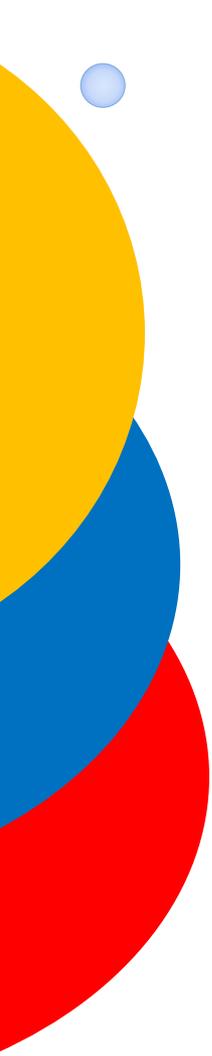
Other Work and Groups

- Advocates for Safe Technology
- **Women's Initiative to Reduce Electro-Smog**
- Dr Mary Redmayne



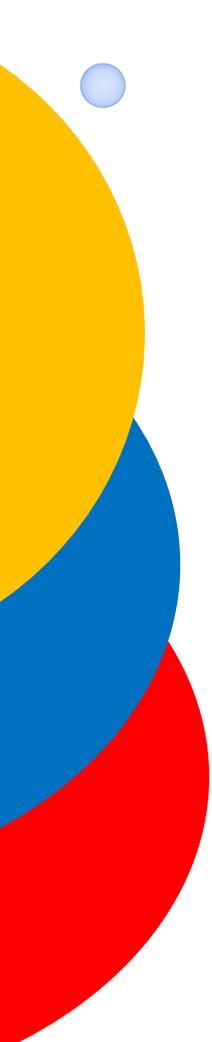
TECH AND EDUCATION

[Eliant Position Paper on Digital Media and Childhood](#)



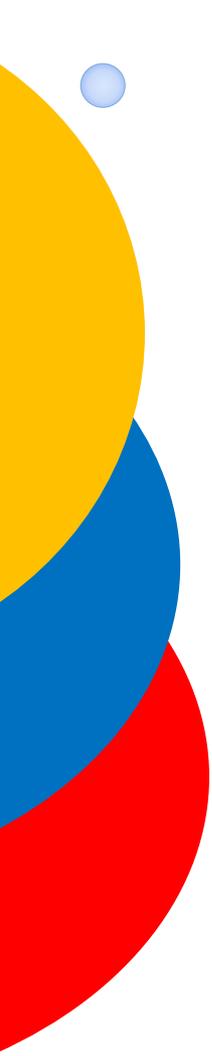
What Constitutes Good Education?

- Draws out from within
- Many Studies, e.g. John Hattie (2008, 2011)
- The teacher's inner being, character, love, wisdom
- Learning without a teacher – ineffective
 - App on screen as teacher – very ineffective
 - Robot as teacher – ?
- Teacher's role
 - Activator of the inner (soul), respectful & loving
 - Coach, grading & grating



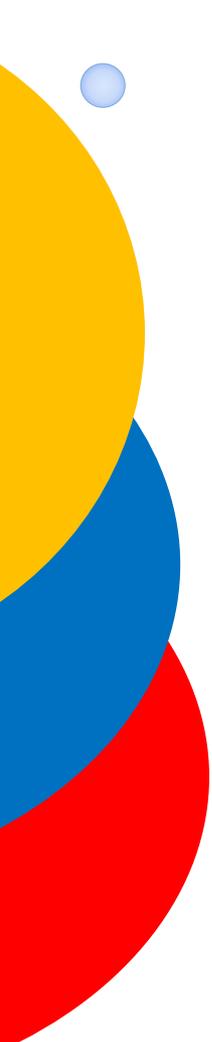
Hand-Eye SensoriMotor Skills

- 2-D surface lacks depth
- Eye movement restricted to the plane
- Sensory wholeness not active, not practiced
 - 12 Senses work together
 - What is absorbed through the senses?
 - Experience of wind, warmth, and light
- Compare:
 - Experience of images while outdoors or in classroom
 - Recess
 - Experience of images while online
 - Computer gaming



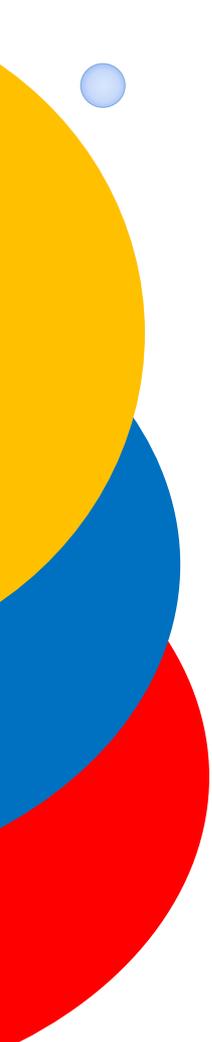
Learning thru Bodily Interaction

- Balance while in movement
- Experience of whole body during movement
 - Resistance, support, surface, texture, viscosity, moisture
 - Separateness (ego), agency, ability to alter, change environment
- Experiences before their abstraction
- Affect on cognitive and social learning
 - Impairments (Leonard 2016)
- ADHD training ground
 - Computer gaming: very rapid mental reaction
 - No past or future, total absorption in the game
 - Addiction, dopamine stimulation



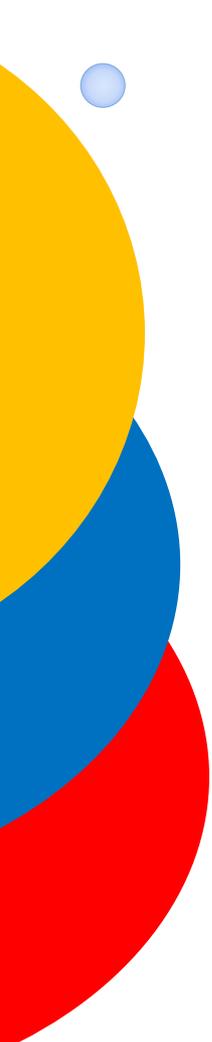
Effects of Digital Exposure

- Diminished eye contact, social interaction, interaffectivity
- Undeveloped social skills: collaboration, group-work
 - Ekeocha & Brennan (2008): individual memory of an event was significantly worse after watching a movie on computer screen alone than at a theatre with 2 or more others (thought to be due to group discussion afterward)
- Fear of social exclusion



Extensive Digital Media Use

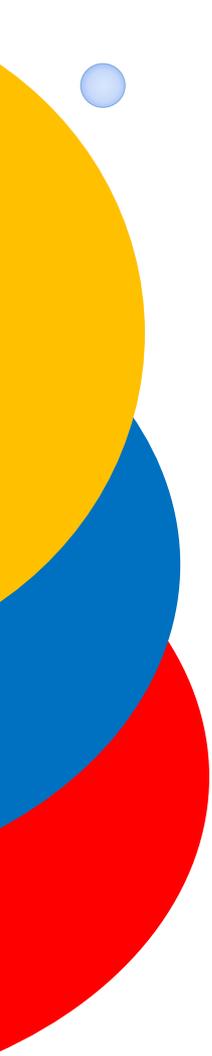
- Zimmerman (2007): Impairs language acquisition, attention disorders
- Weis & Cerankosky (2010): Impairs reading and writing, behavior at school
- Richards et al. (2010): Impairs empathy
- Sanders et al. (2000) and Lepp et al. (2014): Depression, less satisfaction, impairs school performance
- Zheng et al. (2014): Increases ADD
- Hancox et al. (2004): Increases obesity
- BLIKK (2017, 5500 children): impairs concentration, play ability, language, and increases hyperactivity & obesity



Empathy

Konrath et al. (2011)

- Drew from 72 studies between 1979 and 2009
- Decline of 40% in American college-aged students
- Most of the decline from 2000 to 2009.



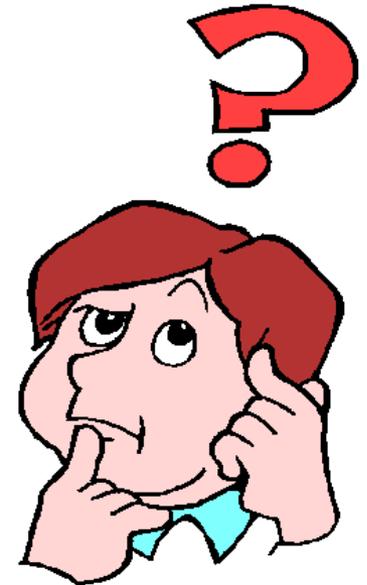
Conclusions

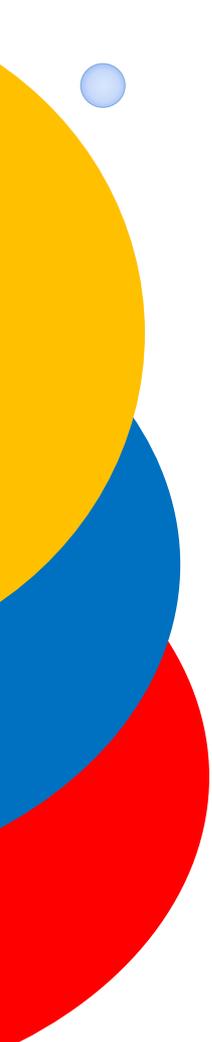
- Use of digital media during childhood negatively affects
 - Cognition
 - Emotional skills
 - Social skills
- Well-being with a warm human being as teacher
- Childhood sensory experiences cannot be replaced by computer images – play time
- Education of the child must include teacher and
 - Exploration and acting (imitation)
 - Feeling/emotional coupling (variety)
 - Understanding through the body before using abstractions



“Pleasure and joy are founded on pain; without it they cannot exist. Just like the pleasure of satiety depends on hunger, so do knowledge and joy originate in pain. That is also the reason why, in a tragedy, the sense of an expected redemption fills us with satisfaction. Everything that will have fullness in the future endures states of sadness and pain at present. The knowledge that what is now pain and suffering will in the future turn to plenitude comforts us.” Occult Signs and Symbols, 28Oct1907, Berlin, GA 101

Q&A





Example Counter-Balance

O Man,

You mould it to your service,

You reveal it according to the value of its substance

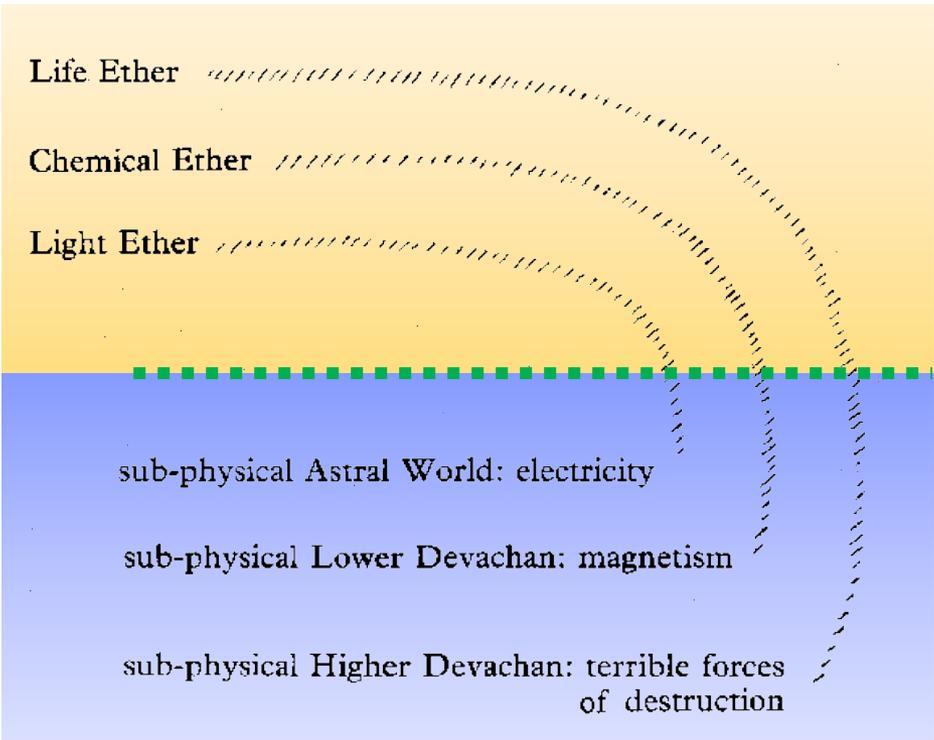
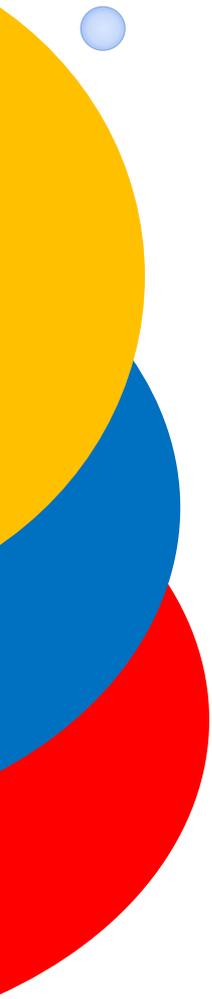
In many of your works.

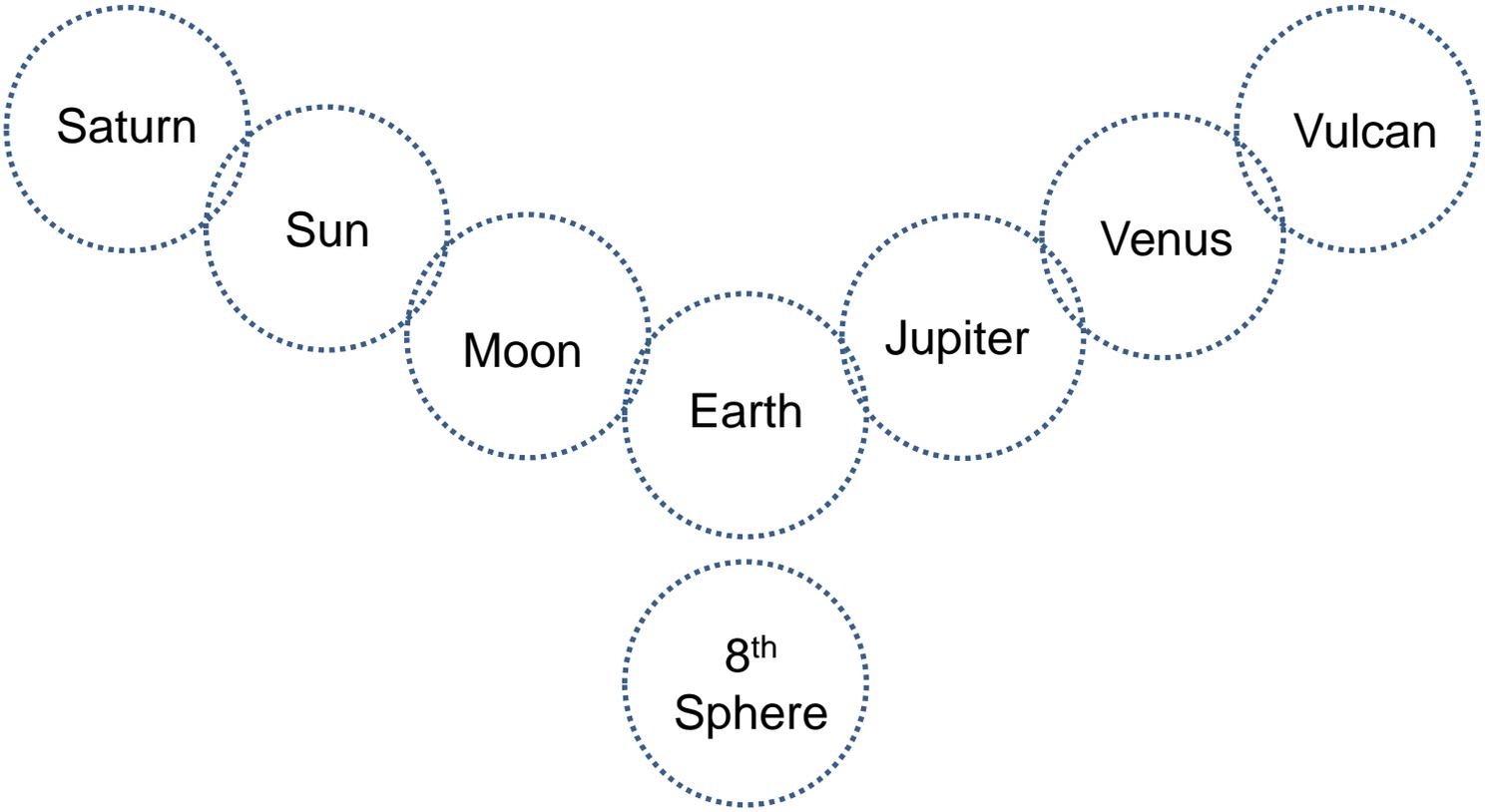
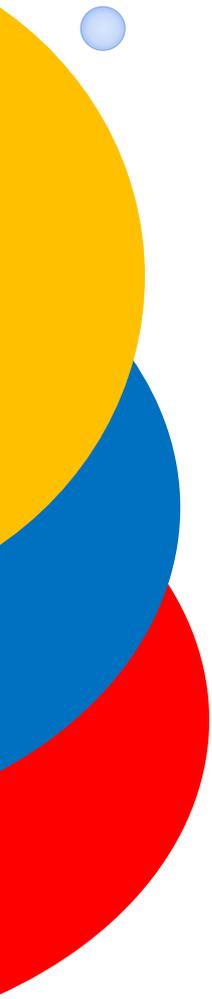
Yet it will bring you healing

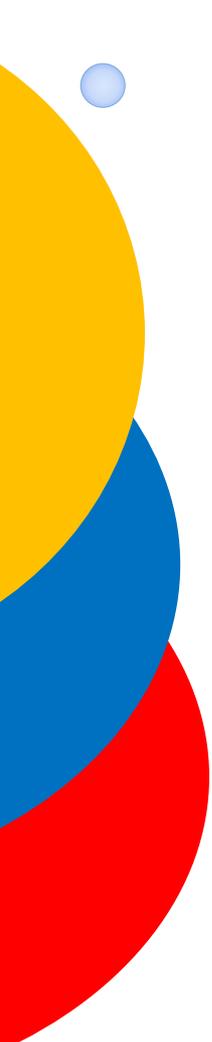
Only when it reveals to you

The lofty power of its spirit.

-- *Rudolf Steiner October 5, 1923*







Additional Closing Verse

- *In the spirit lay the germ of my body.
And the spirit has imprinted in my body
The eyes of sense,
That through them I may see
The lights of bodies.
And the spirit has imprinted in my body
Reason and sensation
And feeling and will,
That through them I may perceive bodies
And act upon them.
In the spirit lay the germ of my body.*
- *In my body lies the germ of the spirit.
And I will incorporate into my spirit
The super-sensible eyes
That through them I may behold the light of spirits.
And I will imprint in my spirit
Wisdom and power and love,
So that through me the spirits may act
And I become a self-conscious organ
Of their deeds.
In my body lies the germ of the spirit.*