

**exactphilosophy.net**



**Alain Stalder**

**Artecat**  
Alain Stalder







**exactphilosophy.net**



# **exactphilosophy.net**

Alain Stalder



Artecat  
2021

Copyright © 2021 by Alain Stalder  
All rights reserved.

First printing: 2021

ISBN 978-3-906914-10-7

Artecat Alain Stalder  
8134 Adliswil  
Switzerland

[www.artecat.ch](http://www.artecat.ch)

# Contents

Preface . . . . .	7
<b>Web Pages</b>	<b>9</b>
Welcome . . . . .	10
way . . . . .	11
space and time . . . . .	12
metamorphosis . . . . .	15
greek philosophy . . . . .	20
i ching . . . . .	27
origins . . . . .	36
evolutions . . . . .	50
mixed feelings . . . . .	51
star signs . . . . .	55
artemis . . . . .	59
synthesis . . . . .	62
measurement . . . . .	63
psyche . . . . .	65
References . . . . .	69
Seeds . . . . .	70
Links . . . . .	72
<b>Articles</b>	<b>73</b>
Welcome... . . . .	74
Welcome to my garden... . . . .	74
What is exactphilosophy ? . . . .	75
I Ching . . . . .	76
Elemental changes in the I Ching ? . . . .	76
Astro . . . . .	82
Elementary star signs . . . . .	82
How astrology might really work ? . . . .	98
Astro teasers . . . . .	109
Elements . . . . .	117
Sources of cognition . . . . .	117
The pyramids and the four elements ? . . . .	120
The roots of the four elements in Empedocles' poem, and similarly veiled in the Hippocratic Oath ? . . . .	122

Metaideas	127
Are dark matter and energy neutrinos ?	127
Paradoxes	128
Paradox of love	128
Paradox of measurement	129
Paradox of solar eclipses	130
Paradox of decoherence	131
Paradox of $\pi$ ?	133
Dug-up Facts	134
Birth time of Caesar Rodney	134
First mention of Lilith as second focal point of the lunar orbit	139
Dada and Duchamp's Fountain	143
Myths	145
White-red-black and triple moon goddess ?	145
White-red-black and the "green" goddess	155
Sleeping Beauty Dreaming	184
Public Relations	191
Teslcard Postcard Action 2010	191
Mountain Astrologer ads	193
Delphi for Palm OS	194
Zeitzeugnisse	198
Discoveries revisited	198
A few new discoveries in physics	199
Review of "A few new discoveries in physics" by Alain Stalder	228
Timeline / Unconscious Spacetime	229
Web archives	230
Magnified Small Text	233
A few new discoveries in physics	233
usenet odyssey	255
Mondfaden	256
Möbius lego	262
Timeline	266
Art	268
Die neugierige Statue	268
Elemental improvisation	271
Visual art gallery	277

## Preface

Contrary to previous editions this one does not carry the year in the title because there had been major new findings since the 2020 edition which gave my core findings about elements in principle critical mass. This means effectively that exactphilosophy.net will almost no longer evolve, will be preserved more or less as is, while projects to carry the core ideas to more people would take place essentially outside of exactphilosophy.net.

Articles have been streamlined and some have been removed compared to the 2020 edition, including all non-English articles for which there is an equivalent English version. You can still buy the 2020 edition or obtain the book for free as a PDF at [artecat.ch](http://artecat.ch), the Swiss National Library ([nb.admin.ch](http://nb.admin.ch)) or at the Internet Archive ([archive.org](http://archive.org)), and as a ZIP archive at [exactphilosophy.net](http://exactphilosophy.net) itself.

I published also a lot more thoughts around these themes in Usenet (see corresponding article here), at the forum at Astrodienst ([astro.com](http://astro.com)) and a few at the I Ching forum at [onlineclarity.co.uk](http://onlineclarity.co.uk). The Usenet posts have been preserved at various archives, for the other two it is not certain whether the posts will be preserved by the respective maintainers.

Adliswil 2021, Alain Stalder





# Web Pages

All web pages, in the order listed in the menu on the website.

## Note on small text

See [blue](#) headers on pages with small text for information on which page or pages magnified text can be found. If all else fails, use the online version on the website and zoom in, or do this with one of the free PDF editions from the places mentioned in the preface.

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
👁 artemis

### synthesis

measurement  
psyche

### References

### Seeds

### Links

## Welcome

I present a way of looking at the world here. That way or idea is not something that can be proven. But some of the fruits it contains might be considered for tending to, grow and become part of existing systems of thought.

Just click sequentially through all menu items on the left, like reading chapters in a book, and take your time, or go to '👁 artemis' for every- and nothing...

I am a physicist (\* 1966 in Zürich, Switzerland) and am doing this as a hobby.

Most of the time this site just 'rests by changing', in a way sleeping, dreaming like Sleeping Beauty...

Maybe also some growth outside, see 'Seeds' section.

Alain Stalder



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## way

After defining elements from immediate perception of the world, inspired by Kant and Schopenhauer, I relate these elements to physics, the ancient Greek elements, the eight trigrams of the Chinese I Ching, and more. . .



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

- way**
- space and time
  - metamorphosis
  - greek philosophy
  - i ching ☯
  - origins

- evolutions**
- mixed feelings
  - star signs
  - 🦋 artemis

- synthesis**
- measurement
  - psyche

## References

- Seeds**
- Links**

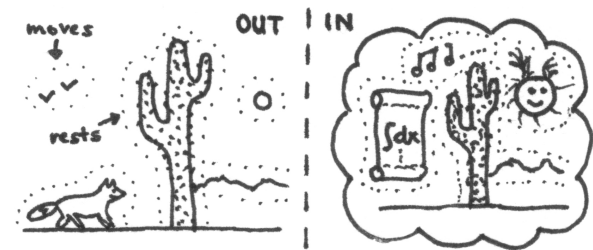
## space and time

Imagine you just now started to look at the world.



One of the first things you notice is space. There is you and an outside world you can see, and you can see more than one thing. What separates you and what you can see, and what separates the different things you see, is space in its most immediate definition.

Then you also quickly notice that some things move and others do not. This is time, again in its most immediate definition, as motion or being at rest.



Things can rest or move outside and inside the mind. Thus there would a priori be 4 different kinds of things: What moves outside, what rests outside, what moves inside, and what rests inside. Let me call them *elements* and give them the following names: *emo*, *ero*, *emi* and *eri*.

<b>emo</b>	<b>moves</b>	<b>outside</b>
<b>ero</b>	<b>rests</b>	<b>outside</b>
<b>emi</b>	<b>moves</b>	<b>inside</b>
<b>eri</b>	<b>rests</b>	<b>inside</b>

## leads

Some literature quotes, ideas and different points of view. Always also see '[🌀 artemis](#)' for eventually articles that may expose some topics in a more contemporarily amenable way.

- A priori there is just an experience of being, which encompasses all that is. In that sense, space and time or the elements as tentatively defined above, may already be all that is. A conscious mind or self separate of the elements may a priori not be necessary, nor would it have to be limited to only part of the elements (like inside). But still some considerations related to an observing self further below.
- Immanuel Kant. *The Critique of Pure Reason*. 1787.  
In the early chapters, Kant discloses that some observable things cannot be isolated from the self, but instead appear to be themselves *a priori* necessary for thinking and observation. These a priori concepts include space and time in their immediate sense—the structure in which things appear in the mind and seem to exist outside of it.
- “By means of the external sense (a property of the mind), we represent to ourselves objects as without us, and these all in space. Herein alone are their shape, dimensions, and relations to each other determined or determinable. [...] Space is not a conception which has been derived from outward experiences. For, in order that certain sensations may relate to something without me (that is, to something which occupies a different part of space from that in which I am); in like manner, in order that I may represent them not merely as without, of, and near to each other, but also in separate places, the representation of space must already exist as a foundation. [...] We never can imagine or make a representation to ourselves of the non-existence of space, though we may easily enough think that no objects are found in it.” (translated by J. Meiklejohn)
- “Time is not an empirical conception. For neither coexistence nor succession would be perceived by us, if the representation of time did not exist as a foundation a priori. [...] With regard to phenomena in general, we cannot think away time from them, and represent them to ourselves as out of and unconnected with time, but we can quite well represent to ourselves time void of phenomena.”

- Arthur Schopenhauer. *The World As Will And Idea*. 1819.  
 “[...] that the world which surrounds him is there only as idea, i.e., only in relation to something else, the consciousness, which is himself. If any truth can be asserted *a priori*, it is this: for it is the expression of the most general form of all possible and thinkable experience: a form which is more general than time, or space, or causality, for they all presuppose it; and each of these, which we have seen to be just so many modes of the principle of sufficient reason, is valid only for a particular class of ideas; whereas the antithesis of object and subject is the common form of all these classes, is that form under which alone any idea of whatever kind it may be, abstract or intuitive, pure or empirical, is possible and thinkable.” (translated by R. Haldane and J. Kemp)  
 The word “Vorstellung” (for “idea”) in the original means literally something “put in front of or before you”.
- If I can imagine something, is it then really inside of me? Isn't there already a separation (space) between me and what I imagine? Such an extreme definition of *self* or *inside* would mean that the self cannot have any (consciously accessible) attributes, no memory etc., because any such attribute of the self would be something that can be considered by the self and would thus, by definition, not be part of the self. . .
- This definition of *self* reminds of the *Tao* (“way”) in Taoism. Lao Tzu starts the *Tao Te Ching* with “The Tao that can be Tao'ed (trodden/spoken), is not the real (unchanging) Tao”.
- In today's science, organs of perception wire back what is outside to the brain, where also mind and self would be. Maybe the self would even be considered “more inside than inside”, looking out first at what else is inside and then even further out at what is outside. But how much of that is paradigm, and might thus change again over centuries?
- How would rest/move be defined for other senses than vision? How could eri and emi be measured inside? Would the only “objective” way be to measure brain activity outside? Would that be fundamental enough in this context? Could the self (observer) be measured?
- Would a female observer also consider what is seen as not being part of herself or would she rather tend to identify with what she sees? (Is the own body part of the self? And lovers, family, friends, house, garden, etc.?) In other words, is the distinction between in and out hard or soft (gradual)?
- What about sleep, dreaming, trance, drunkenness? Why only have a fully conscious observer?

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## metamorphosis

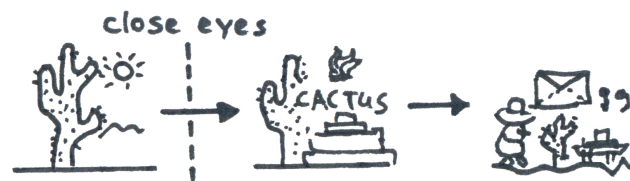
The next thing that one notices is that motion can start and stop, and that changes outside and inside seem not to be independent of each other. In other words, the elements change, maybe even metamorphose into each other.

What causes or allows these changes? Whatever it is, it must be something fundamental, like the four elements. So let me simply call it the fifth element, e5.

Free will seems to be a part of e5. It is possible to lift a spoon and then to throw it away, i.e. to get something outside that rests into motion (ero → emo). However, free will cannot be identical to e5, as some things are much harder to control (try lifting a tree) and things transform all the time without conscious influence.

Freedom inside the mind seems larger than outside. It is much easier to lift a tree in the mind, than a real tree. But let me tackle things from a different angle: Outside on average more things rest than move, while inside the mind, things are almost always more flowing.

For example, a tree is at rest in most situations, except for a little movement of leaves and maybe branches. But if you close your eyes and try to imagine a tree at rest, it will get very hard after a few seconds not to deviate to other thoughts and to keep the tree at rest.

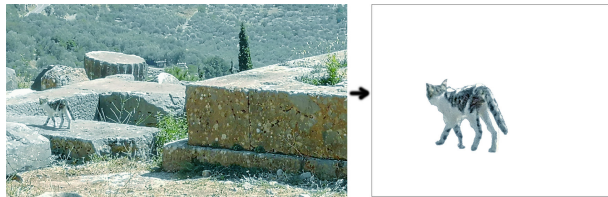


In conclusion, on average outside activity is needed to get things moving, while inside activity is needed to keep things at rest. More abstractly, emo and eri are thus active, ero and emi are passive. Also, what is outside resists motion on average more than what is inside. So emo and ero are hard (out), emi and eri are soft (in). What moves usually does so in various directions. Hence what rests appears to bind, what moves appears to release.

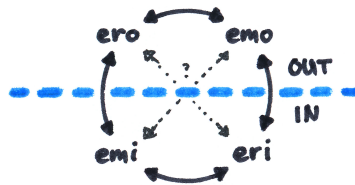
<b>emo</b>	moves	outside	active	hard	release
<b>ero</b>	rests	outside	passive	hard	bind
<b>emi</b>	moves	inside	passive	soft	release
<b>eri</b>	rests	inside	active	soft	bind
<b>e5</b>	transforms the above elements				

A camera can only register ero and emo, and thus only transitions  $\text{ero} \leftrightarrow \text{emo}$ , while transitions that would cross between in and out seem impossible. Personal experience might be a bit different, albeit a bit paradox, as follows.

If you leisurely observe a scene outside, like at the beach, usually most things will be resting, but there will be some movement. If you then close your eyes, in my experience, what will be immediately visible after closing your eyes will be the few things that moved, but frozen in movement, hence apparently a transition  $\text{emo} \rightarrow \text{eri}$ , a transition in which activity is preserved.



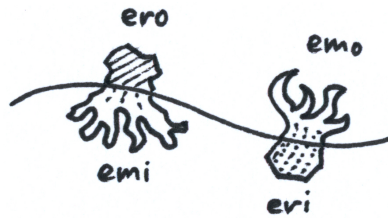
Accordingly, passivity outside would then yield passivity inside,  $\text{ero} \rightarrow \text{emi}$ . Actively created change outside, which more often means to get something in motion than the other way round, usually needs active focus inside first. Hence transitions in  $\leftrightarrow$  out would go both ways,  $\text{emo} \leftrightarrow \text{eri}$  and  $\text{ero} \leftrightarrow \text{emi}$ . Motion outside can also come to be and stop without much activity inside, like when an apple falls from a tree. Similarly, such things can also happen inside without much activity outside. Hence there would apparently also be transitions  $\text{emo} \leftrightarrow \text{ero}$  and  $\text{emi} \leftrightarrow \text{eri}$ . All in all, apparently a circle  $\text{ero} \leftrightarrow \text{emo} \leftrightarrow \text{eri} \leftrightarrow \text{emi} \leftrightarrow \text{ero}$ , while other transitions would at least be less frequent.





The elements could a priori interface in six ways: emo-ero, emi-eri, emo-emi, ero-eri, emo-eri, emi-ero. Any interface between elements must be unobservable, because otherwise it would be something that is perceived inside or outside, i.e. it would *be* one of the four elements. The same argument can be made for e5, of course.

Let me imagine an interface in-out as an infinitely thin membrane. And imagine, say, a blob of ero at the interface. If it remained passive, it could start to flow while permeating inside, becoming emi, or the other way round, and similarly for emo and eri.



Since interfaces between elements would be invisible, just like e5, they might a priori have an arbitrarily complex nature, so that the above picture is a priori maybe just one of the simplest ways of seeing them.

## leads

- If free will or the observing self is a part of e5, what is the rest? Cause and effect, fate, destiny, the free will of others, the own or collective unconscious? Quantum mechanics has relativized the first assumption somewhat, or maybe not.
- What property of the issue of free will or not leads to millions of variations when thinking about it? Could it possibly even be literally the effect of many “transformations” in the mind, even in circles, whatever that may mean precisely?
- Freedom to lift a spoon does not automatically mean freedom of choice whether to want to lift the spoon or not.
- The interface ero-emi could be seen as the arrangement of things outside related to a mood, a flow of feelings inside.
- When I say that outside more things rest than move, I mean this in a very specific sense: Relative macroscopic motion at time scales that human beings can register.

At long time scales, all things move; microscopically everything is in motion, as heat is nothing but random motion of atoms or molecules. When I turn my head, all objects move, but relative motion between them remains small.

- Some things outside keep moving, but often in a way “that rests by changing”, reminding of Heraclitus, like a river that remains the same despite its water flowing, or often waves in the sea that move sort of periodically and only drastically change their average size and shape over longer periods of time than immediately observable. Fast moving clouds, however, can take on quite different shapes. And so on; all in all, categorizing outside as “hard” is not absolute.

- The present approach to nature is consequently centered on the human perspective, on direct experience of nature. Modern science usually differs from that by trying to pick a point of view from which a problem is easy to describe.

The oldest example for this is astronomy that has been greatly simplified by solar centered calculations instead of using many arbitrary epicycles in geocentric calculations.

- Modern science is a very valuable companion for the present approach, especially for helping to exclude naive mistakes.
- Can my observations about motion, activity and hardness outside and inside be formalized and thus proven? How would such a mathematical representation look like? What assumptions would it be based on?

- In any closed system, *entropy*, roughly a measure of disorder, can at best remain constant, but usually it increases. With time, macroscopic directed motion and structures decay into microscopic random motion, which is, by definition, heat. Life manages to escape this fate by operating in *open* systems, by exporting disorder into the environment. That way, living beings can grow from microscopic seeds to complex structures and animals can repeatedly create directed motion.

Since science considers the outside world to be mainly inanimate and the mind to be located in a piece of organic matter, the brain, it predicts that outside motion tends to disappear, while inside the conscious mind has a hard time focusing on something, because lots of mostly unconscious activity in the brain keeps stirring things up.

Science is thus essentially compatible with the considerations presented so far, except for science's qualitative notion that creating motion inside the mind is active, requires energy, like outside. This might, however, simply be due to the viewpoint of science, which only considers facts in the outer, material world and might thus not be able to describe inner processes as experienced from the inside. . .

- In meditation, calmness of the mind (*eri*) is often sought by actively focussing the mind on something, thus reducing *emi*.

- In daily life, the outer world seems often bigger and stronger than the inner one. If you look at a bicycle and then close your eyes, you can quite quickly imagine the bicycle in your mind, but if you then imagine, say, that you add wings, and open your eyes again, you will usually not see a winged bicycle.

Conversely, you can usually make everything outside disappear by just closing your eyes (“turn black”, ero), or you can turn your head or walk away, so that the influence on what one sees outside is immediately very strong in that sense.

Adding wings to a bicycle outside is still possible, but harder, because the outer world is harder. It requires several steps involving eri (planning, focussing), which then lead, via emo, to a different arrangement of ero, a winged bicycle.

- In *The World as Will and Idea*, Schopenhauer puts will before a distinction between subject and object:

“[...] as feeling, a knowledge that his will is the real inner nature of his phenomenal being, which manifests itself to him as idea, both in his actions and in their permanent substratum, his body, and that his will is that which is most immediate in his consciousness, though it has not as such completely passed into the form of idea in which object and subject stand over against each other, but makes itself known to him in a direct manner, in which he does not quite clearly distinguish subject and object, yet is not known as a whole to the individual himself, but only in its particular acts,—whoever, I say, has with me gained this conviction will find that of itself it affords him the key to the knowledge of the inmost being of the whole of nature; for he now transfers it to all those phenomena which are not given to him, like his own phenomenal existence, both in direct and indirect knowledge, but only in the latter, thus merely one-sidedly as idea alone.” (§ 21)

- There is usually less emo than ero and less eri than emi, but emo and eri are on average not disappearing. So transitions would have to be balanced and/or to return in loops.

In today's science, the source of recurring activity would be the sun. The earth receives about the same amount of energy as light from the sun as it radiates back into the universe, which is why the temperature of earth is roughly constant. But since the earth receives energy from a single point in space and exports energy into all directions, it effectively exports entropy into space, thus preserving life on earth.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

- way
  - space and time
  - metamorphosis
  - greek philosophy
  - i ching ☯
  - origins

- evolutions
  - mixed feelings
  - star signs
  - ☾ artemis

- synthesis
  - measurement
  - psyche

## References

## Seeds

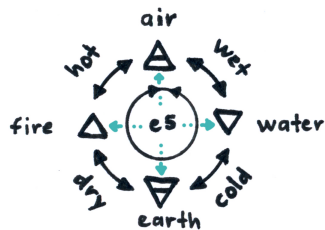
## Links

## greek philosophy

Aristotle defines elements to be composed of properties that can be felt by touching. He uses two pairs of opposites, hot-cold and wet-dry, to define four elements, which he names *fire*, *earth*, *water* and *air*. And he identifies wet-dry with soft-hard, viscous-brittle and smooth-rough. Unlike later commonly the case, he does not consistently identify hot-cold with active-passive and light-heavy. If you do, you get a one-to-one correspondence to my previous definition of the elements in terms of in/out and rest/move:

△	fire	hot (active)	dry (hard)	emo
▽	earth	cold (passive)	dry (hard)	ero
▽	water	cold (passive)	wet (soft)	emi
△	air	hot (active)	wet (soft)	eri

Aristotle defines a fifth element as immutable, moving only in circles and existing only in space, while the other four elements move linearly. And he also arranges the four elements essentially in a circle in which they transform into each other by flipping one of hot↔cold or wet↔dry at each transition, while not completely excluding transitions that flip both at the same time, but considering them more difficult and slower. The shared theme of a circle links the transformation of elements to the fifth element.



In other words, the same circle as tentatively derived earlier on from my definition of the elements, and a similar meaning related to e5, as also derived earlier.

Passive is inertial in a sense: Outside ero resists more to get into motion than emo resists to get to rest; inside emi resists more to get to rest than eri resists to get into motion. In rough equivalence to inertial and gravitational mass in physics, inert (passive) would be heavy and dense, swift (active) would be light and thin.

## leads

- Aristotle. *On Generation and Corruption*. Around 350 BCE.
- “Since, then, we are looking for ‘originative sources’ of perceptible body; and since ‘perceptible’ is equivalent to ‘tangible’, and ‘tangible’ is that of which the perception is touch; it is clear that not all the contraries constitute ‘forms’ and ‘originative sources’ of body, but only those which correspond to touch.” (Book II, translated by H. Joachim)
- “From moist and dry are derived (iii) the fine and coarse, viscous and brittle, hard and soft, and the remaining tangible differences. For (a) since the moist has no determinate shape, but is readily adaptable and follows the outline of that which is in contact with it, it is characteristic of it to be ‘such as to fill up’. Now ‘the fine’ is ‘such as to fill up’. For ‘the fine’ consists of subtle particles; but that which consists of small particles is ‘such as to fill up’, inasmuch as it is in contact whole with whole—and ‘the fine’ exhibits this character in a superlative degree. Hence it is evident that the fine derives from the moist, while the coarse derives from the dry. Again (b) ‘the viscous’ derives from the moist: for ‘the viscous’ (e.g. oil) is a ‘moist’ modified in a certain way. ‘The brittle’, on the other hand, derives from the dry: for ‘brittle’ is that which is completely dry—so completely, that its solidification has actually been due to failure of moisture. Further (c) ‘the soft’ derives from the moist. For ‘soft’ is that which yields to pressure by retiring into itself, though it does not yield by total displacement as the moist does—which explains why the moist is not ‘soft’, although ‘the soft’ derives from the moist. ‘The hard’, on the other hand, derives from the dry: for ‘hard’ is that which is solidified, and the solidified is dry.”
- “The elementary qualities are four [...]. Hence it is evident that the ‘couplings’ of the elementary qualities will be four: hot with dry and moist with hot, and again cold with dry and cold with moist. [...] Fire is hot and dry, whereas Air is hot and moist (Air being a sort of aqueous vapour); and Water is cold and moist, while Earth is cold and dry.”

- Aristotle arranges the elements in a cycle fire-air-water-earth:  
“Thus (i) the process of conversion will be quick between those which have interchangeable ‘complementary factors’, but slow between those which have none. The reason is that it is easier for a single thing to change than for many. Air, e.g. will result from Fire if a single quality changes: for Fire, as we saw, is hot and dry while Air is hot and moist, so that there will be Air if the dry be overcome by the moist. Again, Water will result from Air if the hot be overcome by the cold: for Air, as we saw, is hot and moist while Water is cold and moist, so that, if the hot changes, there will be Water. So too, in the same manner, Earth will result from Water and Fire from Earth, since the two ‘elements’ in both these couples have interchangeable ‘complementary factors’. For Water is moist and cold while Earth is cold and dry—so that, if the moist be overcome, there will be Earth: and again, since Fire is dry and hot while Earth is cold and dry, Fire will result from Earth if the cold pass-away. [...] (ii) the transformation of Fire into Water and of Air into Earth, and again of Water and Earth into Fire and Air respectively, though possible, is more difficult because it involves the change of more qualities.”
- In *On Generation and Corruption*, Aristotle considers light-heavy not to be an attribute of any specific elements:  
“(i) heavy and light are neither active nor susceptible. Things are not called ‘heavy’ and ‘light’ because they act upon, or suffer action from, other things. But the ‘elements’ must be reciprocally active and susceptible, since they ‘combine’ and are transformed into one another. On the other hand (ii) hot and cold, and dry and moist, are terms, of which the first pair implies power to act and the second pair susceptibility.”

But in *On the Heavens*, he considers air and fire as light and water and earth as heavy, in the order earth-water-air-fire, and postulates the existence of an immutable fifth element that dominates in the sky, is neither light nor heavy and moves in circles, while the first four elements move linearly:

"[...] all locomotion, as we term it, is either straight or circular or a combination of these two, which are the only simple movements. [...] Now revolution about the centre is circular motion, while the upward and downward movements are in a straight line, 'upward' meaning motion away from the centre, and 'downward' motion towards it. [...] For if the natural motion is upward, it will be fire or air, and if downward, water or earth. [...] circular motion is necessarily primary. For the perfect is naturally prior to the imperfect, and the circle is a perfect thing. [...] These premises clearly give the conclusion that there is in nature some bodily substance other than the formations we know, prior to them all and more divine than they. [...] there is something beyond the bodies that are about us on this earth, different and separate from them; and that the superior glory of its nature is proportionate to its distance from this world of ours. [...] things are heavy and light relatively to one another; air, for instance, is light relatively to water, and water light relatively to earth. The body, then, which moves in a circle cannot possibly possess either heaviness or lightness. For neither naturally nor unnaturally can it move either towards or away from the centre. [...] this body will be ungenerated and indestructible and exempt from increase and alteration [...] earth is enclosed by water, water by air, air by fire, and these similarly by the upper bodies" (Book I, translated by J. Stocks)

- Aristotle appears to consistently consider the pair of opposites hot/cold active and the pair wet/dry passive, see the quote from *On Generation and Corruption* above, or the following quote from *Meteorology*:  
 "All this makes it clear that bodies are formed by heat and cold and that these agents operate by thickening and solidifying. It is because these qualities fashion bodies that we find heat in all of them, and in some cold in so far as heat is absent. These qualities, then, are present as active, and the moist and the dry as passive, and consequently all four are found in mixed bodies." (Book IV, translated by E. Webster)
- In the outside world, the elements water and air (essentially liquids and gases or gas-like phenomena like clouds or smoke) appear softer and more fluidly in motion than the element earth (solid matter). The element fire (flames, lightning), however, does not appear to be visibly hard, while, like earth, quite closely related to dryness.

- While many works of Aristotle and Plato have been preserved in their entirety, works of earlier philosophers, as well of many later ones, like the Stoics, have usually only survived as fragmentary quotes by later philosophers, typically around early CE or even later. Since this was also the time in which the “canonical view” on the elements emerged for centuries to follow in astrology, alchemy, medicine, etc., it is difficult to reconstruct other views with certainty. Moreover, it seems that some schools of philosophy might have had oaths which would bind their members not to speak about certain fundamental views, or only in carefully veiled form.

In a nutshell, the earliest source I know of that attributes fire and air to active, and water and earth to passive is Cicero in *Academica* (45 BCE), possibly influenced by the Stoics. The first attribution of the same elements to male-female in astrology is Vettius Valens in *Anthologia* (2nd century CE). Aristotle names Empedocles at least twice as the first to have considered four elements. Plato introduces a fifth element in the *Timaeus*, most likely predating Aristotle.

A fragmentary closer look below and in following sections.

- David Sedley writes in chapter 11 of *The Cambridge History of Hellenistic Philosophy* (2000) that the Stoic’s identification of fire and air with active emerged from medical tradition, from *pneuma*, breath, which was seen as a mixture of fire and air, and mentions also that this identification was originally not exclusively the only view of the Stoics in their time.
- In *Academica* (45 BCE), Cicero lets Antiochus of Ascalon say the following, influenced by Aristotle and maybe the Stoics: “Accordingly air [...] and fire and water and earth are primary; while their derivatives are the species of living creatures and of the things that grow out of the earth. Therefore those things are termed [...] elements; and among them air and fire have motive and efficient force, and the remaining divisions [...] water and earth, receptive and ‘passive’ capacity. Aristotle deemed that there existed a certain fifth sort of element, in a class by itself and unlike the four that I have mentioned above, which was the source of the stars and of thinking minds.” (Book I 26, translated by H. Rackham)
- A bit later astrological views emerged that see fire and air as male, and water and earth as female. See Vettius Valens’s *Anthologia* in the 2nd century CE and hints in earlier texts by Dorotheus of Sidon and Marcus Manilius. These views have essentially prevailed, including in medieval alchemy and up to contemporary astrology.
- In contemporary astrology, the element fire is associated with (visual) imagination and impulse, air with (abstract) thinking and communication, water with feelings and faith, earth with pragmatic realism—to give just a rough summary.



- Most things in the sky beyond clouds are round or cyclic: sun and moon are round; planets, as well as stars during night and seasons, move periodically in predictable cycles.
- The fifth element is also called ether or aether and quint-essence. Many different views of the fifth element and closely related concepts have emerged over time.

Plato used the word aether to describe the purest form of air in the *Timaeus*. But there is also a strong association of the sky with fire, because stars and planets appear to emit light and the sun provides heat, and also because fire was often considered the lightest of the four elements.

The fifth element is generally considered “divine” because gods were often believed to live in heaven. And it is often also seen as special in other ways, like able to create life, or immortal like the soul or maybe pneuma, or able to create matter and to hold it together, or maybe identified by some alchemists with the philosopher’s stone, which was believed to be able to transform matter, like lead to gold, etc.?

- Do such associations (historically founded or not) fit well with the definition of e5 simply because they all keep going in circles around the same questions?
- According to Diogenes Laërtius in the third century CE, the Stoics would have identified fire with hot, earth with dry, water with wet, and air with cold (and dry):

“[. . .] the four elements are all equally an essence without any distinctive quality, namely, matter; but fire is the hot, water the moist, air the cold, and earth the dry—though this last quality is also common to the air. The fire is the highest, and that is called aether, in which first of all the sphere was generated in which the fixed stars are set, then that in which the planets revolve; after that the air, then the water; and the sediment as it were of all is the earth, which is placed in the centre of the rest.” (7. LXIX, translated by C. Yonge)

The papyrus *Anonymus Londinensis* from about the first century CE says essentially the same about Philistion (apparently Philistion of Locri, a contemporary of Plato):

“Philistion thinks that we are composed of four ‘forms’, that is, of four elements—fire, air, water, earth. Each of these too has its own power; of fire the power is the hot, of air it is the cold, of water the moist, and of earth the dry.” (XX 24, translated by W. Jones)

According to David Hahm in *The Origins of Stoic Cosmology* (1977), this view might have already been quite common among physicians in classical times. Aristotle's texts about biology seem to implicitly reflect that view, like that air is inhaled cold and exhaled hot (pneuma). Although there appear to be no contemporary sources that would directly prove such an identification, Hahm's detailed argumentation that the Stoics aimed for a unified view of the elements (unlike apparently Aristotle) across all fields seems plausible.

In Stoic belief, the cosmos emerged from fire via air to water to earth, and back (see Hahm for details), essentially along Aristotle's circle of the elements or light to heavy and back.

- In ancient Greek philosophy there was also the idea of matter consisting of indivisible physical units (atoms). In Plato's *Timaeus*, a model is presented that combines both views by associating the elements with the five Platonic solids: fire-tetrahedron, air-octahedron, water-icosahedron, earth-cube and the "roundest" one, the dodecahedron, for the whole world/universe (pan). Kepler's drawings (1619):



Today they are usually paired cube-octahedron, dodecahedron-icosahedron and tetrahedron-itself, because the centers of the surfaces yield the corners of the dual body.

In 4 dimensions there are 6 generalized Platonic solids, in 5 and more dimensions always only 3, namely generalizations of tetrahedron, cube and octahedron.

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## i ching ☯

All cultures seem to know some kinds of elements, but let me consider the 8 trigrams of the Chinese Book of Changes, the *I Ching* or *Yijing*, which may be quite fundamental.

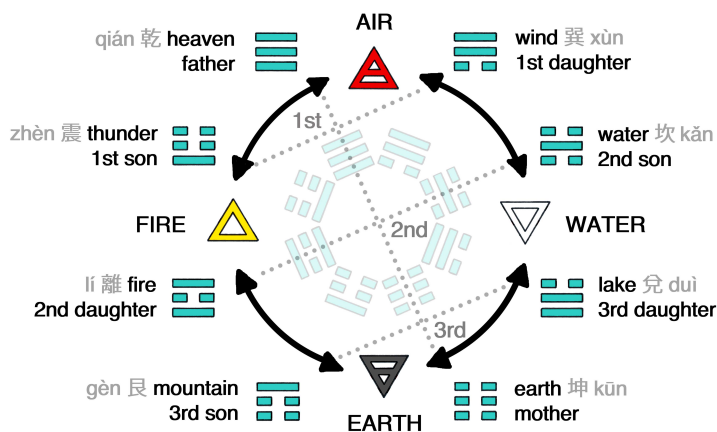
☰	heaven, strong, creative, father
☷	earth, devoted/yielding, receptive, mother
☳	thunder, inciting movement, arousing, 1st son
☵	water, dangerous, abysmal, 2nd son
☶	mountain, resting, keeping still, 3rd son
☴	wind/wood, penetrating, gentle, 1st daughter
☲	fire, light-giving, clinging, 2nd daughter
☱	lake, joyful, joyous, 3rd daughter

They seem to resemble Greek elements in pairs, namely heaven-wind (air), earth-mountain, fire-thunder and water-lake. Let me rearrange them into another table:

☰	heaven	<b>air</b>	rests	male
☴	wind/wood	<b>air</b>	moves	female
☶	mountain	<b>earth</b>	rests	male
☷	earth	<b>earth</b>	moves	female
☲	fire	<b>fire</b>	rests	female
☳	thunder	<b>fire</b>	moves	male
☱	lake	<b>water</b>	rests	female
☵	water	<b>water</b>	moves	male

Interestingly, the trigrams that correspond to the Greek elements, i.e. resting air and earth, moving fire and water, are exactly the male trigrams.

Let me map each trigram to the result of a transition between two elements in Aristotle's circle of the elements, ending with the corresponding element and starting with a male element (fire or air) for the male trigrams (father and sons) and with a female element (water or earth) for the female trigrams (mother and daughters):



The trigrams seem to fit closely: Thunder as fire that has suddenly come down as lightning from the sky (air), in contrast to fire steadily clinging to the matter (earth) it burns; wind as air that gently evaporated from water, in contrast to gases from a fire risen to heaven; a lake as water sprung from sources (earth), in contrast to water fallen down as rain from the sky (air); a mountain as earth solidified from lava (fire), in contrast to softly yielding earth from sediments deposited by water.


☰	heaven	<b>air</b> ← fire	rests	male
☴	wind	<b>air</b> ← water	moves	female
☶	mountain	<b>earth</b> ← fire	rests	male
☷	earth	<b>earth</b> ← water	moves	female
☲	fire	<b>fire</b> ← earth	rests	female
☳	thunder	<b>fire</b> ← air	moves	male
☱	lake	<b>water</b> ← earth	rests	female
☵	water	<b>water</b> ← air	moves	male

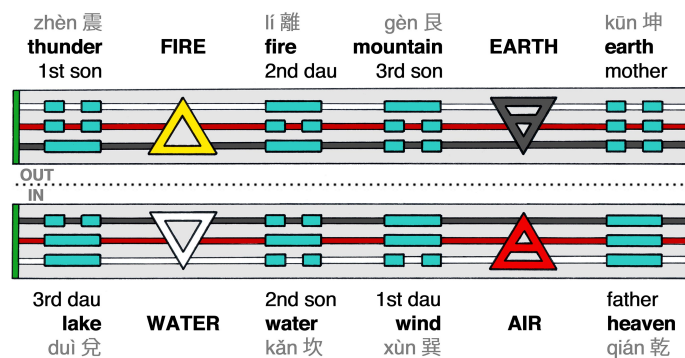
This arrangement is none of the two traditionally known ones, more similar to Earlier Heaven than Later Heaven:



More symmetries, some similar to Earlier Heaven:

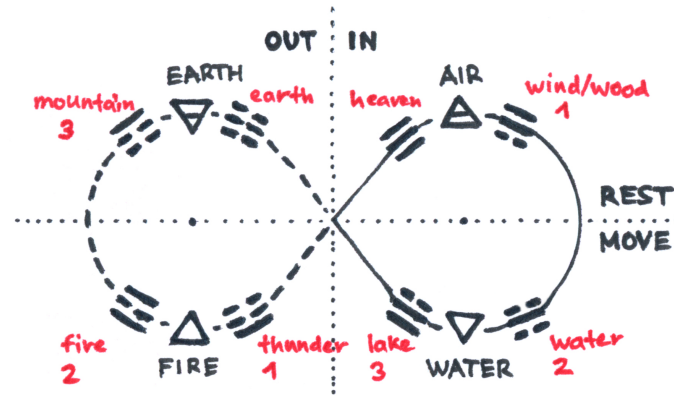
- Daughters and sons are arranged from father to first to second to third children, and finally to mother.
- Opposite trigrams in the circle mirror each other if you mirror each trigram at the middle line (i.e. swap first and third line) and invert all lines (yin ↔ yang).
- Trigrams that transform to or from outer elements have a broken (yin) line in the middle, which would fit with outer elements being harder and more brittle, breaking more easily.
- Excluding the middle line, between adjacent trigrams in the circle exactly one line is inverted (yin ↔ yang).

Let me arrange the circle of elements and trigrams onto a Möbius Strip  as follows (click for larger image):



Inner elements are placed on the inside of the strip, outer elements on the outside. That way, the strip reminds of the supposed permeable membrane between in and out, but with different elements touching: The symbols for the moving elements fire and water touch on opposite sides of the strip, coinciding perfectly, and the same is true for the resting elements earth and air. All lines of the trigrams on one side of the strip are mirrored by their inverted lines (yin ↔ yang) on the other side, so that yin and yang are different sides of the same on the strip.

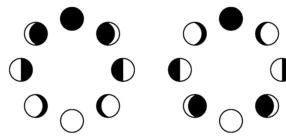
So, even though fire and water would touch, and maybe mirror each other between in and out, they could not transform directly into each other, only indirectly by going along the single surface of the strip via air or earth.



## leads

- The I Ching is a divination system. By tossing coins or drawing yarrow sticks, one determines hexagrams (two trigrams) that are given meanings in the text of the I Ching. More precisely, the oracle results in two hexagrams, describing the evolution of the current situation to a new situation.
- This new arrangement of the 8 trigrams and 4 elements in a circle was inspired by a passage in the introduction of Richard Wilhelm's translation of the *I Ching or Book of Changes* (translated from German to English by Cary F. Baynes):  
 "The eight trigrams are symbols standing for changing transitional states; they are images that are constantly undergoing change. Attention centers not on things in their state of being—as is chiefly the case in the Occident—but upon their movements in change. The eight trigrams therefore are not representations of things as such but of their tendencies in movement."  
 So the 8 Chinese trigrams would express essentially the same elements and changes in a circle as the 4+1 Greek elements, i.e. the fifth element would be contained in the trigrams.
- Also in terms of bind/release, the trigrams seem to fit closely: Fire, heaven, lake and mountain hold their element in place; thunder, wind, water and earth let it go.
- No common historical roots are known, nor any roots of the above arrangement of trigrams in Chinese history, so did both cultures mirror nature independently, even unknowingly?  
 Interpreting earth-water-air as the states of matter solid-fluid-gas and fire as a chemical reaction or physical phenomenon that produces light and maybe heat, the elements could be considered what is most commonly encountered in nature.  
 The elements represent also *elementary* needs: air to breathe, water to drink, food to eat, sunlight and fire as energy.  
 Conversely, the very nature of oracles is that things are connected, maybe also globally to some degree?

- Each trigram is part of 15 hexagrams. In the images of the hexagrams, the wind/wood trigram appears 10 times as wind, 5 times as wood or tree(s); fire 11 times as fire, two times as lightning, one time as light, one time as sun; water 11 times as water, two times as clouds, one time as rain, one time as spring well. The other trigrams appear as themselves.
- In the yarrow stalk method of consulting the I Ching, one starts with 50 yarrow stalks and initially puts one away. This seems to be a reference to the cycles of moon and sun, because 50+49 lunar months are only about 1.5 days short of 8 solar years, which is also why the Olympics in ancient Greece were held alternatively every 50 and 49 lunar months. Hence the moon advances about 3/8 of the circle every solar year, drawing an eight-pointed star over eight years, as well as appearing in eight different lunar phases.



Venus never separates more than about 1/8 of the circle from the sun and appears to stand still 5 times in 8 years, drawing a pentagram that shifts only slightly between cycles. The Mesopotamian goddess of love Ishtar was associated with Venus, usually depicted as an eight-pointed star and sometimes shown together with sun and moon.

The yin-yang symbol ☯ reminds of moon phases.

"In its primary meaning yin is 'the cloudy', 'the overcast' and yang means actually 'banners waving in the sun', that is, something 'shone upon', or bright. By transference the two concepts were applied to the light and dark sides of a mountain or of a river." (Wilhelm/Baynes, introduction)

- The five Chinese Wu Xing, water, metal, fire, wood and earth, which are often called "elements" in the West, but literally mean "moving", stand most immediately for the five planets visible to the naked eye, Mercury, Venus, Mars, Jupiter and Saturn, while the "Four Symbols", black turtle (plus snake), white tiger, vermillion bird (phoenix) and azure dragon stand for the four directions and for constellations in the sky (each for a group of 7 of the 28 mansions). Together with the I Ching maybe standing for sun and moon, this would complete the sky and what it was believed to reflect down on earth.
- In the five Wu Xing, earth often has a somewhat central role, surrounded by things that emerge from it and go back to it: water from springs, fire from volcanoes, wood growing from earth and metal mined from it; four very useful ingredients for humans to shape their worlds, like using fire to smelt ore into metal tools, which can then be used to cut wood into houses, furniture, bows, plows, water wheels, etc.

- In the Chinese zodiac, four star signs are assigned to earth, arranged in a cross, and in the four sectors in between the two star signs there are assigned to water, metal, fire and wood, respectively. This reminds a lot of Aristotle's circle with trigrams above, so maybe the Wu Xing earth would correspond to the static Greek elements and the other four Wu Xing to the trigrams of the I Ching for the corresponding transformation? Can this be identified in the attributes of the star signs of the Chinese zodiac?
- Is the association of trigrams with elements and their changes also closely mirrored in the hexagrams and their changes?
- When consulting the I Ching as an oracle, the different lines are assigned the numbers 6 to 9:

6	old (changing) yin	-- to —	-x-
7	new (unchanging) yang	— to —	—
8	new (unchanging) yin	-- to --	--
9	old (changing) yang	— to --	-o-

These numbers are also associated with the Wu Xing and derived from 5 (earth) plus 1 to 4 (water, fire, wood, metal), see the Yellow River Map, e.g. in Wilhelm/Baynes.

As a different approach, let me number the elements in Aristotle's circle as 1-2-3-4, starting a priori with any element and going in either direction of the circle. Now, map transformations of elements to the sum of the three elements involved,  $1+2+3 = 6$ ,  $2+3+4 = 9$ ,  $3+4+1 = 8$  and  $4+1+2 = 7$ , where the element in the middle is the one that is transformed.

This gives also the numbers from 6 to 9 and note that new yin and yang are obtained for the sequences that cross from 4 to 1, i.e. into a *new* cycle.

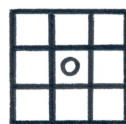
Let me number the elements 1-fire, 2-air, 3-water, 4-earth (starting with the lightest element according to Aristotle):

6	transformation of air	$36 = 6 \times 6$ Stratagems
7	transformation of fire	$49 = 7 \times 7$ Qixi (Ch'i?)
8	transformation of earth	$64 = 8 \times 8$ I Ching
9	transformation of water	$81 = 9 \times 9$ Tao Te Ching

This fits astonishingly well with contemporary Western astrological views of the elements. The 36 Stratagems provide stratagems to use in politics and war, which fits well with air as conscious planning mind. The I Ching yields a priori images of changes in the outer, material world, the element earth, which are then interpreted in a more detached way. The Tao Te Ching, which comes in 81 sections, often has something that flows like water. Besides the 50/49 yarrow stalks, there is the Qixi Festival on the 7th day of the 7th month of the year when magpies mythologically build a bridge across the milky way to briefly reunite two lovers, and ch'i (qì) stands for life energy and breath (which reminds of pneuma), and is pronounced almost like the word for 7 (qī) in Chinese.



In ancient China, fields in agriculture used to be divided into squares of  $9 = 3 \times 3$  fields, with 8 fields (earth) owned by individual families around a central 9th field that belonged to all families and contained the well (water).



- The most ancient Chinese oracles used bones (typically shoulder bones of oxen) or turtle plastrons (the belly part of the turtle shell). Holes were drilled and heated with a heat source from the back of the plastron to produce cracks on the front, which were typically T-shaped. Although many oracle bones and plastrons have been found and the ancient writing can now be read to quite some degree, little seems to be known about how cracks were interpreted. There seems to be no direct evidence for an influence on the I Ching, so far.

A plastron consists essentially of 6 pairs of scutes (shields), anal, femoral, abdominal, pectoral, humeral and gular, with a flexible hinge between the first and the last 3 pairs of scutes, which reminds of the structure of hexagrams.


Applying heat to a plastron can cause it to crack, to become broken. Are yin and yang lines as broken (weak) resp. unbroken (strong) lines in the I Ching thus related to more ancient oracles involving heat?

Heat dries up, makes brittle, so would a yang line correspond to no crack emerging, because it was wet to start with, hence be considered strong in the sense of resisting heat?

On the northern hemisphere, stars appear to rotate around the north pole in the sky, the direction assigned to the turtle of the four symbols. Is the turtle with its shell maybe a model of the world, with the plastron standing for what is down on earth and the upper part of the shell for the sky? And similarly lower and upper trigrams of the I Ching? Would a plastron oracle have mirrored below what is above?

The hexagons on the upper part of the shell could be seen to form 6 unbroken/yang lines (heaven) and the pairs of plastron scutes 6 broken/yin lines (earth).



- See Billy Culver's *Energy Language* website, which inspired me once to reconsider old attempts to arrange elements and trigrams on a Möbius Strip  or an infinity symbol  $\infty$  and whose style influenced the graphics above, but in my feeling his images carry more potential than that.

- Is the female fire trigram a form of inner fire, emo mapped to some form of eri, that is clinging to a dream, an idea, a wish despite all outer hardness? Is the female earth trigram a form of inner earth, ero mapped to some form of emi, something that can yield devotedly to outer hardness? Is the female lake trigram a form of outer water, emi mapped to some form of ero, which brings calm to the outside world without hardness? Is the female wind trigram a form of outer air, eri mapped to some form of emo, free flowing mind and communication?
- Is the Chinese approach thus more balanced? Conversely, is the Greek approach more likely to start new things, exactly because it is maybe initially more imbalanced? Are both needed for 'full' balance? Is there more?

- In *Psychologische Typen* (1921), C. G. Jung combines extra- and introversion with implicitly the four elements, which he terms thinking (air), feeling (water), intuition (fire) and sensation (earth), into 8 psychological types, possibly already implicitly inspired by the 8 trigrams of the I Ching:

"I first met Richard Wilhelm [...] in the early twenties. In 1923 we invited him to Zürich [...]. Even before meeting him I had been interested in Oriental philosophy, and around ["etwa"] 1920 had begun experimenting with the I Ching." (*Memories, Dreams, Reflections*, Appendix IV, recorded and edited by A. Jaffé, translated by R. and C. Winston, 1961)

Also in *Psychologische Typen*, Jung additionally categorizes thinking and feeling as "rational" or "judging", because they would judge the world based on their inside, and conversely intuition and sensation as "irrational", but even writes:

"But I am prepared to grant that we may equally well entertain a precisely opposite conception of such a psychology, and present it accordingly. I am also convinced that, had I myself chanced to possess a different individual psychology, I should have described the rational types in the reversed way, from the standpoint of the unconscious—as irrational, therefore." (X A III 5, translated by H. G. Baynes)

In that sense, what Jung calls "irrational" could also be considered "realistic", as judging the world rather based on measurement outside than on inner conceptions, just like in science, as opposed to e.g. medieval Christian views, where looking at Jupiter's moons through Galileo's telescope could apparently not have convinced people that not everything revolves around earth. In astrology, rationality is typically air, reality typically earth, but both air and water (which is usually considered rather irrational and related to the unconscious) have to do with judgment, which is maybe not so astonishing, considering that eri and emi would be inner elements.

So Jung would have been quite close in a way, with the first text I know of to bring “in/out” near “elements”, with extra-/introverted and judging from within or without.

His definition of rational/irrational seems also to reflect the difference between medieval world views, where inner worlds had quite some weight, and newer ones, from the Renaissance on, where the outer world generally gained precedence.

- Love and happiness are felt inside, so maybe ideally not too much focus outside? Nor inside? But still sometimes? Or simply be with someone with a different perspective?

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
🦋 artemis

### synthesis

measurement  
psyche

## References

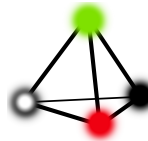
## Seeds

## Links

## origins

It is my impression that a notion of first three “elements” and later ‘1+3’, as opposed to four equitable elements plus a fifth element, ‘4+1’, as defined by Aristotle, may have been subliminally prominent throughout the ages long before recorded history and Greek philosophers.

In a nutshell, ‘1’ would have become what makes things move, energy, fire, and ‘3’ would have evolved to air-water-earth, the states of matter gas-liquid-solid. Colors would have been implicitly the light **green** of catkins and explicitly **white-red-black** in the order of a ripening mulberry, with roots in prehistoric cults around fire, and likely the moon, both as single creatress and in triplicity, world-wide.



First named colors in virtually all languages were white-red-black as the colors of fire (light): **black** as dark, **white** as bright, and **red** as the colors of fire from flame to embers, yellow to red. Fire, humanity’s first major discovery, would have initially been preserved in a raised mound of ashes (white) around a core of glowing coal (red around black). There would also have been cults around this, most likely a universal “white” moon/fire creatress/goddess. In ancient Greece sacrifices were given into fire and the first sacrifice always given to Hestia, the goddess of the hearth.



One of the earliest Indian Upanishads, the Chandogya Upanishad, which dates back to at least around 700 BCE, relates these three colors to “elements”: **red**-fire, **white**-water and **black**-earth, probably also since water is more transparent (and hence “brighter”) and ashes more “fluid” than earth resp. coal. It appears that at some point red became associated with air instead and the goddess came to represent fire and moon as the ruler of a triplicity of air-water-earth or sky, sea and underworld. Colors assigned to elements by Antiochus of Athens around the second century CE were accordingly **yellow**-fire, **white**-water, **red**-air and **black**-earth, and at least today’s symbols are triangles.



Contrary to Aristotle’s model, which is a priori based on touchable properties in the outer world, the present model involves also things inside the mind. In the outer world, emo and ero could be mapped via fire/earth to “energy/matter” and matter split up into its 3 main states.

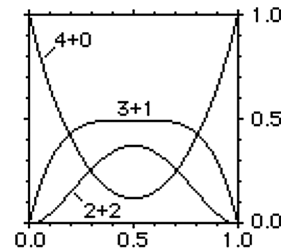
Maybe inside, since ‘states’ suggests resting, emi could be ‘1’ and eri could be split into 3 ‘states of mind’: memory (‘earth’), logical constructs including language (‘air’) and free imagination (‘fire’), with increasing degrees of freedom similar to solid-liquid-gas (‘earth-water-air’) outside, yielding 8 ‘elements’, similar to the trigrams of the I Ching?

See the section *psyche* for a simple tentative explanation of why first just three “proto-elements”, **black** earth (ero), **white** water (emi), and **red** fire (eri+emo) of life.

## leads

- Could three main states of matter outside be derived from the model or would that have to be added via experimental facts, like the observation that freedom inside seems larger than outside, which lead to passive/active, soft/hard, etc.?
- In the I Ching, poles of ‘1+3’ are father-mother resp. heaven-earth plus their 3 daughters and 3 sons. Similarly, Cronos and Rhea had 3 daughters and 3 sons, and their parents Ouranos and Gaia were also heaven (or mountain) and earth.

- If you toss four coins, there is a 50% chance to get '3+1', a 37.5% chance to get '2+2' and only 12.5% to get '4+0'. Even if coins are skew, '3+1' is always more probable than '2+2', and '4+0' only becomes the most probable result once they are about 1:4 skew. Thus, whenever there are 4 things in nature, chances are a priori high that they come as '3+1'.



- Time and space come as '1+3'. Their homogeneity implies preservation of energy and momentum. The isotropy of space implies preservation of angular momentum, while time is not invariant to reversal, as entropy never decreases.

The 4 forces of nature known to date (at everyday energies), electromagnetic, strong, weak and gravitational forces, come as '3+1', since gravitation is the only one closely intertwined with spacetime and without quantum theory.

- In *The Animate and the Inanimate* (1925), William James Sidis observes that inanimate processes can appear alive if time is reversed, using the example of drops of mercury that flow together on a metal surface and then amalgamate with the surface. Reversed in time, drops of mercury would appear to grow out of the metal surface and divide like living cells.
- A trinity is both 3 parts and 1 unit, so 3 turns almost automatically to 3+1, and 4 to 4+1, or a couple+baby, 2+1.

See also the pythagorean tetractys further below. The image for the universe may have developed from a hill via tetrahedron/pyramid to the dodecahedron in Plato's *Timaeus*, with increasing focus on the number 5 related to Venus, due to the 5 stations of Venus on a 5-pointed star, which is again related to the golden ratio, to harmony, beauty, roundness.

- Before writing, myths were only preserved if people kept remembering and retelling them to younger generations. Thus only stories people really cared about survived. This does, however, not imply that they necessarily consciously understood myths analytically. In a way, myths are sort of informal laws of nature, condense all kinds of experiences into a story. Exploring such unconscious or even intentionally veiled legacy spans ages, is still unfolding, even after Freud and Jung.

People living in ancient cultures were not wise just from that connotation of 'old'; they were rather young and fresh compared to us who can look back so far into history. But they were also still closer to the 'source' and knew things that got lost or were maybe never explicitly written down. Some things were also truly archaic then, simpler and more brutal; see Homer's *Iliad* and *Odyssey*, for example.

- The complex of '1+3' and basic colors is very rich and beautiful, but also a 'can of worms' and only partially fits here, so just some gist below, and see my article "[White-red-black](#) and the "[green](#)" goddess" under [🦋 artemis](#) for more.
- One of the oldest ancient Indian Upanishads, the Chandogya Upanishad (around 700 BCE), speaks of three colors of fire: fire-red, water-white and earth-black.

"The red colour of [gross] fire is the colour of [the original] fire; the white colour of [gross] fire is the colour of [the original] water; the black colour of [gross] fire is the colour of [the original] earth. Thus vanishes from fire what is commonly called fire, the modification being only a name, arising from speech, while the three colours (forms) alone are true." (6.4.1, translated by Swami Nikhilananda)

These three colors, which appear as first colors in apparently all earliest cultures able to write them down, represent most likely a more archaic concept of color as light/fire, as follows.

Without light no colors; fire produces light; so color would be heavily related to light; thus the basic opposites white (bright) and black (dark), plus the color(s) of fire, red-orange-yellow. Water is transparent, earth is often intransparent, ashes are more "fluid" than coal, hence water-white and earth-black.

In ancient Greek, the words for black/white, *mélas/leukós*, still had, maybe even primarily, the connotation of dark/bright; the word for red, *pyrrós*, literally says color of fire.

In other words, no fire would have been black, lighting it red, and fire/light would have saturated at white.

- The first 3 of the 4 riders of the apocalypse have the colors white-red-black. The color of the fourth is *chlōrós* in ancient Greek, thus related to chlorophyll, the substance that makes leaves green. Colorwise, it was most likely a pale green/yellow color, like new shoots of plants or also the color of a corpse. In the fairy tale around Baba Yaga, three riders appear, white-day at dawn, red-sun when the sun rises, black-night when it gets dark. They are all explicitly servants of Baba Yaga, who also has three pairs of helping hands, which identify her as the triple moon goddess Hecate-Artemis, who is both a goddess of death and of birth, acting also as midwife in mythology. The idea behind this would be that the moon would be the ruling light in the sky because it alone can appear both at day and night, and can even shadow the sun during a total solar eclipse. In folklore, Baba Yaga's house is mobile, stands on chicken legs, the rooster being again a symbol of fire.

- Near the end of Apuleius' *The Golden Ass* (around 150 CE), Apuleius encounters the goddess Isis at full moon at the sea shortly after moonrise:

"Her many-coloured robe was of finest linen; part was glistening white, part crocus-yellow, part glowing red and along the entire hem a woven bordure of flowers and fruit clung swaying in the breeze. But what caught and held my eye more than anything else was the deep black lustre of her mantle. [...] It was embroidered with glittering stars on the hem and everywhere else, and in the middle beamed a full and fiery moon." (Chapter 17, translated by Robert Graves)

Shortly afterwards she describes herself:

"[...] mother of nature, encompassing mistress of elements, first progeny of times, highest power/deity/queen, queen of the dead, first/best (sky) deity, uniform face of gods and goddesses, whose heavenly shining summits, salty sea breezes [and] the dead down below in earth, silently weeped, are still ruled by me. A single/unique goddess in multiple guises, with changing rites, many names, worshipped all over the world." (translated by me)

Note that she may be saying that she rules over heaven, sea and earth, as in Zeus, Poseidon and Hades, hence a trinity of air-water-earth, which would make her potentially fire.

Astrologer Antiochus of Athens and physician Galenus of Pergamon attributed colors resp. body fluids (humors) to elements around the time Apuleius lived, based on older roots going back at least partially to Hippocrates: white to water (phlegm, phlegmatic), black to earth (black bile, melancholic), yellow to fire (yellow bile, choleric) and red to air (blood, sanguine), the colors of Isis' dress above, plus stars and moon for the round fifth element in the sky.

This suggests overall that maybe at some point in time air took the place of fire in the fire trinity as in the Chandogya Upanishad, maybe via breath as a mixture of air and fire, as in pneuma, or maybe Indian Aum (Om), plus maybe water.

<b>"green"</b>	moon	(rules)	<b>"energy"</b>	fire	<b>yellow</b>
white	day	water	liquid	water	white
red	sun	fire	gas	air	red
black	night	earth	solid	earth	black

- In alchemy, also since about at least the time Apuleius lived, the transition of materials toward the philosopher's stone was believed to be black-white-yellow-red, i.e. earth-water-fire-air, which is roughly in order of lightness of the elements and their relatively layered appearance on earth. It is apparently also the order of elements in the four tasks that Venus gives Psyche in *The Golden Ass*. All of this has ancient Egyptian roots, with Osiris, Isis, Horus, Seth, Nephthys, etc., as well as with ancient crafts of creating fake noble metals and gems.



- Fire must have made a great impression on humanity, as it allowed to keep warm and have light at night, to grill, cook and bake food, eventually to bake pottery and to forge metals. It has even been speculated that easier to digest grilled meat allowed humans to grow larger brains. At first presumably people did not know how to make fire themselves, so trees that were known or believed to attract lightning might have been sacred. As lightning comes from the sky, the “fires” in the sky, i.e. sun, moon, planets and stars, would have been identified with deities in the sky that give fire. Hence the main deity would have been in the sky, most likely the moon. The moon can be round like fruits and berries, but also slim and pointy like leaves, and it can grow from the shape of a “catkin” to the round one of a ripe fruit. Attributes of such a deity may thus have been the fruits ripening on such sacred trees in the colors of fire, like mulberries, or similar.

Anything in nature that was not white-red-black would have been unnamed first: green, blue, brown, pale colors like the moon, gleaming colors; often colors that signal something that is not crucial for survival, neither food nor danger. This could explain why green only entered languages late, despite being so predominant in nature. Shapes and colors of fruits may have adapted to preferences of its consumers and they, in turn, their sexually attractive body parts to fruits.

Imagine a child in prehistory in the arms of its mother on a tree at night, trying to “pluck” the moon in the sky, just as it used to pluck fruit and already earlier used to get food from the similarly round breasts of its mother, signaled also by her “red” nipples; thus the gentle, soft roundness of the mother so intimately linked to the moon and the colors of life/fire.

- Elements are elemental necessities of life with air to breathe, water to drink, food to eat, plus energy/warmth, and they are elemental and at times traumatic forces of nature with fires and volcano eruptions, inundations, storms and landslides.
- Robert Graves in the introduction of *The Greek Myths*:  
 “Ancient Europe had no gods. The Great Goddess was regarded as immortal, changeless, and omnipotent; and the concept of fatherhood had not been introduced into religious thought. She took lovers, but for pleasure, not to provide her children with a father. Men feared, adored, and obeyed the matriarch; the hearth which she tended in a cave or hut being their earliest social centre, and motherhood their prime mystery. Thus the first victim of a Greek public sacrifice was always offered to Hestia of the Hearth. The goddess’s white aniconic image, perhaps her most widespread emblem, which appears at Delphi as the *omphalos*, or navel-boss, may originally have represented the raised white mound of tightly-packed ash, enclosing live charcoal, which is the easiest means of preserving fire without smoke.”

Again a sequence white-red-black, ash-glow-coal, with almost certainly roots far back into prehistory. The triangle as the mountain on which deities lived, where lightning was more likely to strike, not to speak of volcanoes, or as a pyramid or the symbols for the elements, and so much more.

See also 20.2 and 90.3 in *The Greek Myths* about omphalos, tripods, white-red-black, Crete, the moon-cow Io, and more.

- The fifth element is round like the moon and cyclic motion in the sky; if the first element is fire, then so is the fifth in a circle of elements, thus the moon goddess also a “higher octave” of fire. Of the three goddesses Hera, Athena and Aphrodite, Paris hands the apple to Aphrodite (Venus) because if you cut an apple in half, you get a five-pointed star, like the five stations of Venus over 8 years, where also sun and moon return quite closely to the same positions.
- In the article “Red, White, and Black in Symbolic Thought: The Tricolour Folk Motif, Colour Naming, and Trichromatic Vision” (Folklore, 123:3, 310-329, 2012), Jessica Hemming mentions that red was typically a color that is darker than fresh blood, more towards brown. Now, Menstrual blood can often be darker (already oxidized) than blood from a fresh wound, which would again link to the moon.

See also her article “Pale horses and green dawns. Elusive colour terms in early Welsh heroic poetry” (North American journal of Celtic studies, Vol 1, No. 2, 189-223, 2017).

- Robert Graves in *The White Goddess* (1948):  
 “I write of her as the White Goddess because white is her principal colour, the colour of the first member of her moon-trinity, but when Suidas the Byzantine [ca. 10th century CE] records that Io was a cow that changed her colour from ~~white~~ to **rose** and then to **black** he means that the New Moon is the white goddess of birth and growth; the Full Moon, the red goddess of love and battle; the Old Moon, the black goddess of death and divination. Suidas’s myth is supported by Hyginus’s fable [ca. 0 CE] of a heifer-calf born to Minos and Pasiphae which changed its colours thrice daily in the same way. In response to a challenge from an oracle one Polyidus son of Coeranus correctly compared it to a mulberry—a fruit sacred to the Triple Goddess.” (Chapter 4)

To me, the colors of the goddess would not directly reflect the change of visible colors of the moon during its phases, as one might think at first, but rather represent the hidden powers that make it change, which would confirm Graves above:

The **white** goddess would be the power that makes the new moon brighter (more “white”) again, towards full moon, from little baby girl to maiden, growth. The **red** goddess would be the fertile adult woman, who menstruates (red blood); she would make the moon pregnant, the round “belly” of the full moon. The **black** goddess would make the moon darker (more “black”) again, towards new moon, withering towards crone. The “red phase” would be somewhat abstract as the blood would only come to light at menstruation if the bearer did not get pregnant. I guess the idea would have been that the child’s blood and body would have grown from that.

So the seed for a new child would be expected to grow each month from sometime after new moon until ovulation around full moon and, if the bearer did not get pregnant, would result in menstrual bleeding around new moon. Note, however, that most contemporary women do not have their individual cycles correlated with moon phases. The average cycle is 28 days (but varies quite a bit individually), which is closer to the time it takes the moon to return to the same spot relative to the fixed stars (27.3 days) than to new moon (29.5 days).

- Empedocles would have been the first to speak of four elements, according to Aristotle in *Metaphysics* (Book I 3) and in *On Generation and Corruption* (Book I 1).

Since at least then, Empedocles is usually credited for having first mentioned the four elements, in the following fragment (DK31B6) of a poem usually called *On Nature*:

τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε·  
 Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἥδ' Ἀιδωνεύς  
 Νῆστις θ', ἥ δακρύοις τέγγει κρούνωμα βρότειον.

It speaks of “fourfold roots” at the origin of all, and then lists four deities with some attributes, in this order: Zeus (flashing/shining), Hera (live-giving/-bearing), Aidoneus (no attributes), Nestis (moisture, tears/dew).

Interpreting the deities as *roots* of the elements, Zeus with his thunderbolt would be fire, pregnant Hera earth, Hades, who’s name means “unseen”, air, and Nestis obviously water.

The quote is from a work by Aetius (1st or 2nd century CE), which has only indirectly survived in several later works attributed to different authors. Mostly elements are attributed the same way as me above, else earth and air are flipped.

It is obviously tempting to interpret Zeus as **white**, pregnant Hera as **red** and Hades as **black**, in the ancient order of a ripening mulberry, plus Nestis as great goddess, especially since Nestis might be the the same goddess as the Egyptian Nephthys, who Robert Graves calls “the Egyptian Hecate” in *The White Goddess* (in the chapter *Gwion’s Heresy*).

- In ancient Egypt, Osiris stood for **black**, the fertile earth of the Nile valley; his brother Seth for **red**, the desert East and West of the valley. The mythological killing and dismembering of Osiris by Seth presumably reflects that in prehistoric times sometime after the annual flood the soil would dry up and become fractured into a mosaic of slabs, or even into sand and dust. Fortunately, every year the Nile, ~~white~~ Isis (also like milk), would restore Osiris to life with water and the fresh fertile black sediments carried along.

This is certainly an oversimplification of Egyptian mythologies that evolved over millennia, but likely still captures a core.

- See this absolutely stunning article by the Ethiopian “Shakespeare”, Tsegaye Gabre-Medhin: *The Origin of the Trinity in Art & Religion: Ethiopian Roots in the Egypto-Greek & Hebrew*, on page 99-120 of *African Origins of the Major World Religions*, ed. Amon Saba Saakana, Karnak House, 1988.

KaBaRa to Kabbalah and Kaaba, Egypt as Kamit (black land), sacred tree, Osiris to Moses and others, and so much more. I guess Fela’s song *Shakara* might fit in, too.

- First Corinthians 13:13: “And now these three remain: faith, hope, and love. But the greatest of these is love.” The Greek words are *pístis*, *elpís* and *agápē*, which are also goddesses, and they occur prominently in Plato’s philosophy.

Faith could be interpreted as sun, bright/white, Hera; hope as moon, dark/black, Athena; love as Venus, fire/red, Aphrodite, the one that got the apple from Paris. These planets are also the order of dresses in the 19th century fairy tale *Three nuts for Cinderella* by Božena Němcová: sun, moon, stars, which reminds also of Isis’ dress. Actually, these three occur already in Mesopotamia in the 12th century BC on a stele: Venus for Ishtar, moon and sun for the gods Sin and Shamash.



- A closer look at the passage from the Chandogya Upanishad mentioned further above shows that the word used for red, *rohitam*, is also the word for a female red deer, as well as as Rohini the name of the red star Aldebaran, one of the eyes of the bull in the constellation Taurus. In ancient Greece deer were sacred to the moon goddess Artemis, originally probably because antlers resemble a fire. In ancient Egypt in the first dynasties the Pharaoh used to run with the ~~white~~-red-black Apis bull at the beginning of spring when the constellation of Taurus was rising. The moon goddess resides at birth and death, as both midwife and goddess of death, when the new or old moon look like a flame or a shoot, or later in history a bow or a sickle, hence she is also celebrated at the beginning of spring when nature starts to sprout again.

The first version of *The White Goddess*, which Robert Graves wrote after new moon in the third degree of Taurus in spring 1944, was titled *The Roebuck in the Thicket*. Isis as the only woman in Isis-Seth-Osiris would be ~~white~~, hence *The White Goddess* a fitting settled title? Hail Artemis!

Note that in astrology the moon is exalted (a good guest) in the 3rd degree of Taurus, or maybe around 3° (see Vettius Valens, *Anthology*, book 3, chapter 4, 2nd century CE).

- Note that way more could be said around these themes; for example, water-white is also closely related to milk and the “mound” it comes from, or cows and the milky way and Isis as the Nile; the three Graeae (grey women) and their single eye, the three Fates and their fabric; purple lo like mulberry juice and the famous die, as well as drinking wine from amethyst goblets in Greek antiquity; the three Indian gunas (strands, chords) in the colors white, red and black, as well as the four varnas (colors) of social classes, with additionally yellow, all maybe related to ancient Egyptian Ma'at; Ra as a yellow cat with donkey ears defeating the white-red-black Apophis snake wrapped around a green tree with red fruits in a painting in Theban Tomb 359 of the 20th dynasty (12th century BCE); as just a few of millions of examples. . .



Note that it were possibly similar depictions of Ra that led to medieval depictions of “killer rabbits” after the crusades.

- A link from elements to fire is immediately easier to trace than one to the moon, which may be because this would have been a secret, the unspeakable real name of the goddess?
- Plato talks about colors in the *Timaeus*, Aristotle in *On Sense and the Sensible*. Both start with black and white as basic colors, which is scientifically correct in the sense that by selectively taking frequencies out of the full spectrum of white, you get all colors, including black and white.

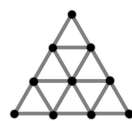
There are three kinds of color sensors in the human eye, for red, green and blue, sorted from low to high frequency. None triggered (no light) is black, plus red gives red, plus also green gives yellow, plus also blue gives white, hence a sequence black-red-yellow-white or earth-air-fire-water.

In Plato's *Critias* the stones of Atlantis' architecture are won locally and have the colors white, black and red.

- Is attribution of colors and animals to points of the compass in the Lakota “Medicine Wheel” relatively new, dating to some time after the arrival of Europeans in America, or did it maybe already come to America with immigrants walking across the Bering Sea maybe over 10'000 years ago?

The four points of the compass, plus a center, would be one reason for 4+1 elements.

- The Yangshao culture “Xishuipo M45 Tomb” in China, which dates back to the 4th millennium BCE, features the mosaic of a tiger opposite the mosaic of a dragon, as constellations in the sky, exactly the animals that are traditionally assigned to West and East in China. Ra's nightly fight with the Apep/Apophis snake reminds of the phoenix and snake (plus turtle) standing for South and North in China.
- Aristotle considers four “causes” in *Physics* and *Metaphysics*, which remind of the four elements. Matter reminds of earth, form of air, primary source of fire and final goal of water.
- Some fragments of Heraclitus might suggest the same circle as Aristotle. DK22B76 seems to mention all four elements in the same circle, earth-fire-air-water-earth, but the original text cannot be restored for sure, according to Diels/Kranz (DK) in *Die Fragmente der Vorsokratiker*. See also fragments B31 and B36; and B90 might suggest that Heraclitus would have considered fire the primary substance.
- See the pythagorean tetractys and oath. Pythagoras lived in the 6th century BCE, before Empedocles and Hippocrates. The tetractys is a triangle with four dots on each side:



1	point	monad (unity)
2	line	dyad (power)
3	triangle/plane	triad (harmony)
4	tetrahedron/space	tetrad (cosmos)

It relates also to music via the ratios between each line, octave (2:1), perfect fifth (3:2) and perfect fourth (4:3).

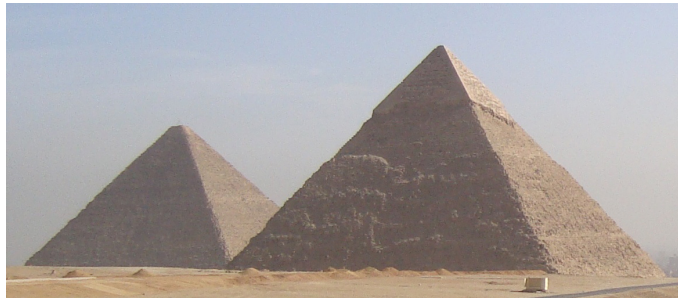
The list reminds of fire-air-water-earth (light to heavy).

But the above is apparently even more than usually for early Greek philosophers based on speculation, since Pythagoras reportedly never wrote anything down himself, so that there are even less credible sources about his views in his time, often surrounded by legends bordering on religion/sect.

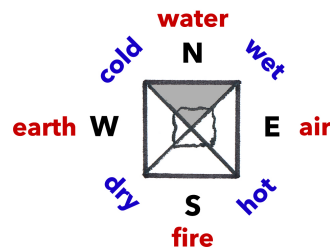
DK note that practically the same word that Empedocles used for “roots” in DK31B6 also appears in the pythagorean oath in DK58B15, with both fragments dating back to Aetius in early CE, so once more circular paths.

- To ancient Greeks, the ancient Egyptians were apparently sort of like the ancient Greeks in modern perception, an admired ancient culture. It appears that the ancient Egyptians might have kept things more secret than the Greeks in their time, maybe only passing it on from master to pupil adept?

- As a playful teaser, note that the pyramids have five corners, an earthly base of four, plus one on top. . .



With maybe even opposites attached as below (or maybe with dry/hot and wet/cold flipped, or attached to faces instead), reflecting the heating and drying effect of the sun during the course of a day, similarly to the original image for yin-yang in China as the shady and sunny sides of a hill?



But how pyramids evolved from single “floor” mastabas via step pyramids to their final form seems to be well researched. Especially how Sneferu had the first three pyramids without steps built and the first two attempts failed, does not suggest that all that much elemental symbolism would have been in the conscious minds of ancient Egyptians at that time.

- Antiochus of Athens attributed elements to seasons the same way I did with faces of the pyramids, if winter is north, etc.: spring-air, summer-fire, autumn-earth and winter-water. The symbols for the four elements are triangles, reminding of the four faces of a pyramid, so whoever created those symbols might maybe have related elements to pyramids.

The symbols also stand for female and male sexes, overlaid to a hexagram “as above so below” for intercourse between Gaia (earth) and Ouranos (sky).  $\triangle \triangle \nabla \nabla \rightarrow \star$

- In the *Timaeus* Plato does not stop at the platonic solids for the elements, but explicitly constructs all of them except the dodecahedron (‘fifth element’) from right-angled triangles, actually even as ‘1+3’ with ‘1’ being the cube (earth).
- Zeus, Poseidon and Hades ruled in heaven (air), sea (water) and underworld (earth). Life can exist in all three of these elements, but not in fire, except in legend fire salamanders.

- In August 2015, I assigned Greek goddesses to pairs of elements and moon phases, and tentatively flipped Athena and Hera in May 2018: Artemis/Hecate to birth/death at new moon as fire around water, Hera (and Clotho) to growth as a young woman or girl at the first quarter as earth around air, Aphrodite (and Lachesis) to bloom as a mature woman at full moon as water around fire, and Athena (and Atropos) to withering as an old woman at the last quarter as air around earth. Artemis/Hecate would thus contain both first and fifth element, and elements would touch as on the Möbius Strip.

- Zhuangzi's famous butterfly dream:

"Once Chuang Tzu dreamt that he was a butterfly, a fluttering butterfly who felt at ease and happy and knew nothing of Chuang Tzu. Suddenly he woke up: Then he was again really and truly Chuang Tzu. Now I do not know whether Chuang Tzu dreamt that he was a butterfly or whether the butterfly dreamt that it was Chuang Tzu, even though there is certainly a difference between Chuang Tzu and the butterfly. This is how the change of things is." (translated by me from the Wilhelm translation to German)

The same day I had first quoted the dream here, on the streets of Zürich, two butterflies on a truck, 21 Sep 2016 at 13:34. White, red, black, a little yellow, even a little circle and her. (In Apuleius' encounter with Isis, it is left open whether he was "just dreaming" or "it really happened".)



The image is by Elena Vizerskaya (Getty Images 108350631); I bought the rights to use it, too, just to be safe.



- (The walking cat of the *metamorphosis* section came to me at Delphi in Greece on Tuesday, 4 September 2018 at about 13:09, ate some of my food, a dry pretzel and salmon jerky, then, after a few burps (still a kid) and playing a little, took a nap of about 20 minutes on my lap, then left roughly in the direction of the Athena Pronoia temple, where I had been a bit earlier. During these few minutes there were no doubts what to do and felt so good, like having a child to care for. Was the AC maybe even an oracle for the AC of  $\pi$ , with the moon maybe late at glowing quincunxes, or early spring with almost shared progressed moons? Late, beyond doubt.)



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
👁️ artemis

### synthesis

measurement  
psyche

### References

### Seeds

### Links

## evolutions

Some ways in which the idea presented earlier might evolve with time...



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

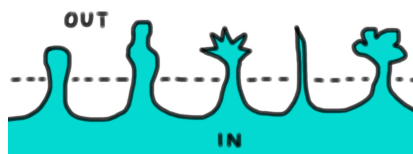
## Seeds

## Links

## mixed feelings

The inner elements eri and emi are softer than the outer ones, which suggests that they would *mix* more easily.

The idea is now that what appears outside as individual and separate beings is unconsciously connected inside. . .



...and that these connections result in feelings that change for often not obvious reasons (emi), while naming inner concepts allows to impose some abstract calm (eri).

Astrology links water (emi) to feelings, love, music, art, religion, the collective and/or individual unconscious, and more. Now, the idea of a *collective* unconscious goes back to Jung, while it may in the end still be so that such unconscious collective connections are created by more Freudian individual unconsciouss, via subliminal channels in normal day-to-day external interactions between beings.

But let me explore things in the Jungian picture first, as a Gedankenexperiment, because it is initially easier, and because it mirrors the initial assumption more directly.

How one feels at any moment would be a mixture of individual and collective influences. Not that what other people think would be directly accessible, just indirectly with regard to how one feels in a particular situation, or how one feels regarding individual possible next steps.

Individuals that are emotionally and physically close would likely have the strongest influence on a person, but also large groups of people, like same village, country, religion, etc., could together have a strong influence.

Influences from a collective unconscious could go well beyond the sum of what is in individual conscious minds. Since the collective unconscious would effectively be a very large brain, consisting of many more brain cells than any individual being, it might have a much more complex and sophisticated mind than any conscious individual and it could know all kinds of details about everybody.

Such a view of a collective unconscious would resemble the concept of god or gods in many religions, and it would likely be fragmented into smaller units at several scales, like families, countries, religions, etc., each with its own collective feelings, plans, and so on.

Jung noticed that in dreams and in cultural creations some archetypal patterns repeat. These archetypes might simply be part of the thoughts, experiences and knowledge of the collective unconscious.

Precognition in dreams or art might simply be picking up collective intentions that are only later realized and can be felt and dreamed about already while the collective unconscious is only planning or considering them.

How would the collective unconscious effectively direct the individuals it consists of? Telling each and every one what to do at each moment would likely not be possible, just like the conscious individual mind would not be able to tell each of its nerve cells when to fire.

But maybe with a general concept like astrology, which creates a balanced and relatively complete set of individuals, each with its own approach to new problems? Faced with a particular problem, a Leo, for example, would feel more like solving it in a “Leo way”, due to collective feedback, so that in any situation different approaches would be tried by different individuals and a good solution would usually emerge. Since astrology tries to reflect all possible approaches in a structured way, the search space for solutions would usually be quite complete.

In other words, a culture with a system like astrology would have an evolutionary advantage in the sense of Darwin. Astrology would then not necessarily need to have anything to do with planets and stars in the sky, more so with relatively ancient beliefs about them.

Assuming the collective unconscious would extend to matter considered inanimate, oracles like the I Ching or Tarot could really reveal some intentions of the collective unconscious, maybe paired with emotional feedback which parts of the response to focus on or how to interpret it. If so, also astrology might a priori still have natural causes, direct influences from planets and stars, collective feedback from the universe itself.

However, there are some arguments that speak against astrology having dominantly natural causes from the sky. There are different astrologies in different cultures, each of which comes in different flavours and has different schools of thought. Besides many small examples for a detachment from actual constellations in the sky, the most prominent one is Pluto in Western astrology.

Pluto was at its discovery in 1930 thought to be a planet that is about as big as planet Earth. Over the following decades it first emerged that Pluto is much smaller, consists mainly of ice and finally in the early 21st century that Pluto is rather part of a belt of objects in similar orbits and with similar sizes. In 20th century astrology, however, Pluto was attributed a major role, both in mundane events and personal fates. In my perception, part of that view *did* reflect reality, so that it seems most plausible to me that astrology is *largely* a cultural creation of mankind that works by collective feedback.

Now let me come back to the initial question or to how something with the properties of a collective unconscious could come about in view of contemporary physics.

The most immediate explanation would be that there are direct connection between brains, mediated by some kind of "waves". But this can largely be excluded today, except maybe at close range, in the sense that any explanation of that sort would require new physics.

So let me focus on known physics and try to look for the most simple and obvious explanation. What I propose is that people simply *mirror* who and what they encounter in their lives inside their brains.

People's brains would thus contain "copies" of everyone they know, most prominently and precisely of their loved ones. What exactly the neural networks would mirror would not be consciously available to individuals nor would it likely be easy to analyze scientifically even if the full structure was known. But it could in principle allow people to make fairly accurate predictions about what their loved ones would do and when. For example, one person could possibly think of the other one almost exactly the moment that other person would have picked up the phone to call.


In terms of network terminology, this would be a *store and forward* network instead of one where information is propagated immediately.

## leads

- Mirroring the outside world is such a central part of the human psyche that it would seem likely that nature would try to make use of any physical effect it could.
- Experimentally distinguishing different effects that could explain such phenomena seems to be very difficult.
- Candidates would include entangled quantum states, as in the EPR paradox, and self-similarity as in fractals.

There would be neither senders nor receivers in these views; sharing would be fundamentally symmetric. Would maybe different people simply look at the *same* things inside?

If there was just one inner world, seen from different perspectives by different people, similarly to what is usually assumed about the outer world, would maybe the inner world be as important or “real” as the outer one, or even more, unlike nowadays usually assumed in science and technology?

- See “Zeitzeugnisse” under  artemis for earlier contributions by me to some possibly new physics related to this, which make additional very specific predictions, and also “How astrology might really work?” for a more recent and longer article around the same themes as here, but with different starting point and focus, also available in German.
- Big data and deep learning could be used to find and analyze such collective structures, including astrological ones.
- Science is based on some implicit, but fundamentally unprovable assumptions, like that nature is more stupid than people and repeats stoically given the same questions. Since numbers only come to be after a measurement, it is difficult to compare a mathematical model of the situation before measurement with reality. So, the “Veil of Isis” may not be easy to lift, if at all, also related to e5, etc.

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

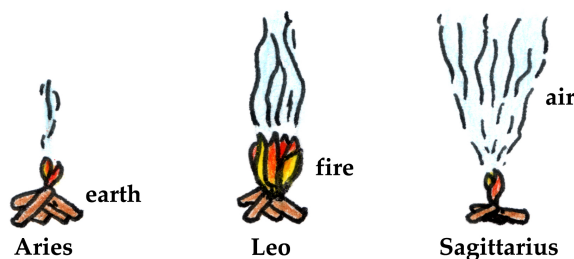
## Seeds

## Links

## star signs

Star signs in the Western zodiac seem to reflect transitions between elements within Aristotle's circle.

Fire signs seem to transform from earth via fire to air, while water is missing, thus desired:



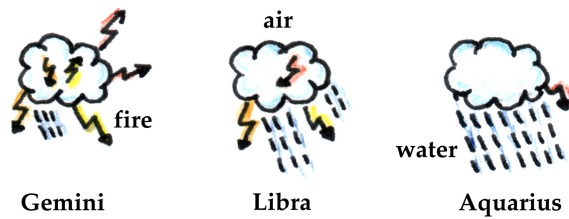
The archetypal image is simply a fire that transforms wood (earth) to smoke (air). Aries as a young fire has most earth, Leo most fire, Sagittarius most air.

In psychological astrology a wound is a central theme for the two later fire signs Leo and Sagittarius, namely for the fisher king in Perceval and Chiron in mythology.

In the model that wound is simply the human body (earth) that is wounded by the fire of life, as any human body must die one day. Only what is learned in life can be formulated in words (air) and can thus be passed on to later generations, thus becomes immortal in a way. So there is a transformation from mortal body to immortal mind, or from animal via man/king to god.

Learning and getting compassion—the element water that is missing in the transformation of the fire signs—in the process is a vital goal for older fire signs.

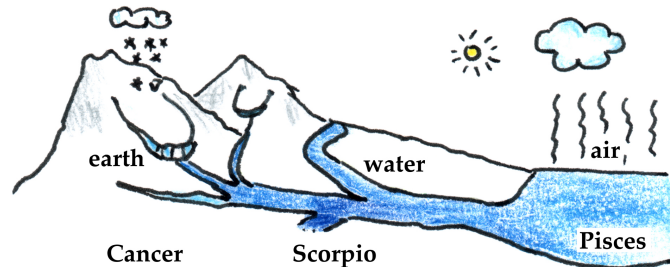
Air signs seem to transform from fire via air to water, while earth is missing, thus desired:



The archetypal image is a cloud (air), which emits both lightning (fire) and rain (water). Gemini as young air has most fire, Libra most air, Aquarius most water.

Paris, who is associated with Libra, chose Aphrodite's offering of love and marriage with Helena, the most beautiful woman in the world, hence love (water) and thus the possibility for the missing element earth in the form of children as fruits of love. Similarly, the opening of Pandora's Box, associated with Aquarius, symbolizes birth.

Water signs seem to transform from earth via water to air, while fire is missing, thus desired:



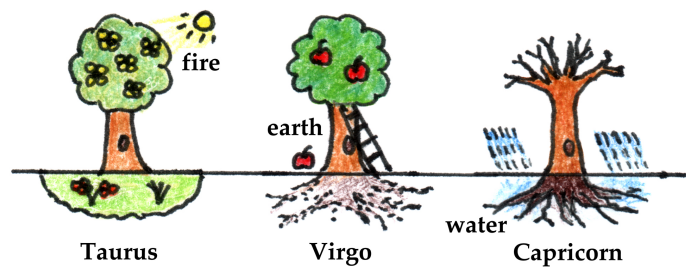
The archetypal image is a river with Cancer as a source and young river emerging from the mountains, maybe from a glacier (earth), merging with more and more rivers and becoming a stream as Scorpio (water) and finally flowing into the sea as Pisces from where most water eventually evaporates again (air), by the power of the sun (fire), the missing element and goal for the water signs.

So, the transition is, like for the fire signs, from earth to air, but this time for a passive, female element. The river that flows down to the sea is more fated than fire, since it is passive, it cannot resist the movement.

But the way up in the end towards light is important, like, for example, for the crab that bit Heracles into his ankle while he was fighting the Hydra in the swamps, and got its place in the sky as the constellation Cancer.



Earth signs seem to transform from fire via earth to water, while air is missing, thus desired:



The archetypal image is a tree with Taurus focussing on the directly visible, but short-lived beauties of the tree that grow with the power of the sun (fire), Capricorn restraining himself to the parts of the tree that persist across seasons and which keep it from falling down, namely trunk and roots, which feed it with water and the substances diluted in it, and Virgo in between, between beauty and fate.

It is this fate or necessity, which creates minimal structures like the branches and roots of a tree, thus order, the abstract element air.

This solves the riddle that even though Virgo is often depicted as being very concerned about order, many Virgos do not keep their lives and homes in strict order. It is Virgo for whom order is an *issue*, for Capricorn it is a *given* and for Taurus it is not that important, except a bit, as Taurus is transforming from fire to earth.

Persephone, who is associated with Virgo, was collecting flowers as a maiden, looking at the sunny (fire) side of life, but already starting to look down to earth, starting to wonder about how things work, what makes the flowers grow, etc., when the earth opened up, Hades abducted her and she became his wife, the queen of the underworld.

For all elements transitions start with a dry element and end with a wet one. This mirrors that often when one gets older, one realizes that things are not so clearly and reliably what they appeared to be when first encountered.

element	transition	desired	image
fire	earth → fire → air	water	fire
air	fire → air → water	earth	cloud
water	earth → water → air	fire	river
earth	fire → earth → water	air	tree

How about trying to synthesize the properties of the star signs formally from the transition between the elements defined by in/out and rest/move alone, without relying on properties of actual fire, air, water and earth ?

ero → <b>emo</b> → eri (→ emi)
emo → <b>eri</b> → emi (→ ero)
ero → <b>emi</b> → eri (→ emo)
emo → <b>ero</b> → emi (→ eri)


Libra, for example, learns from observation of motion outside (fire) and inside (water). Since Libra's transition is towards water, the gift of "inner vision" is given to Teiresias by Zeus and outer vision is reduced by Hera, except for observing omens, which are arguably just outer reflections of collective inner intentions. The transformation would not be exclusively in the direction shown above, rather there would be some back and forth, but summed up, it would be; it would essentially lead inward for all star signs.

For earth signs, the transition would be to channel motion outside into a fixed "vessel" and then to let it flow again inside, desiring to learn something about nature. For air signs, the transition would be to observe outside, learn its laws inside and thus also to derive how things flow inside, desiring to change outer reality for the better. For water signs, the transition would be to let impressions of the outer state flow inside and learn from them, desiring to get things outside moving. For fire signs, the transition would be to get things outside moving and then learning inside how they work, desiring to feel the inner flow.

As another example, the abduction of Kore into the underworld as Persephone is her way into inner worlds, where Hades is more deeply immersed, as Scorpio is already more inside than Virgo, while both are still connected to outside: Hades at least went out to abduct her; she in the end only spends part of the year inside, down in the underworld.

Of course, this was just a partial sketchy first view.

## leads

- For more detailed expositions, see the longer article *Elementary star signs* under  artemis or my book *Elementary Star Signs*, which are both also available in German.
- The four tasks of Psyche in Apuleius' *The Golden Ass* seem to mirror the same transitions very beautifully and precisely, in the order earth-water-fire-air, with goals air-fire-water-earth.
- Are there similar elemental transitions in the Chinese zodiac ?

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☿ artemis

### synthesis

measurement  
psyche

## References

### Seeds

### Links

## ☿ artemis



*The oddest thing of all, the thing that most strikes us when we embark on a story is the total void spreading out before us. The events have occurred and lie all around us in a continuous, formless mass without beginning or end. We can start anywhere...* – Věra Linhartová

## avantgarde

### Welcome

- 🇬🇧 Welcome to my garden...
- 🇫🇷 Bienvenue dans mon jardin...
- 🇩🇪 Willkommen in meinem Garten...
- 🇬🇧 What is exactphilosophy?





### I Ching

- 🇬🇧 Elemental changes in the I Ching?
- 🇩🇪 Elementare Wandlungen im I Ging?


### Astro

- 🇬🇧 Elementary star signs
- 🇩🇪 Elementare Sternzeichen
- 🇬🇧 How astrology might really work?
- 🇩🇪 Wie Astrologie wirklich funktionieren könnte?
- 🇬🇧 Astro teasers






## Elements

-  Sources of cognition
-  Quellen der Erkenntnis
-  The pyramids and the four elements?
-  The roots of the four elements in Empedocles' poem, and similarly veiled in the Hippocratic Oath?








## Metaideas

-  Are dark matter and energy neutrinos?




## Paradoxes

-  Paradox of love
-  Paradox of measurement
-  Paradox of solar eclipses
-  Paradox of decoherence
-  Paradox of  $\pi$ ?




## Dug-up Facts

-  Birth time of Caesar Rodney
-  Première mention de Lilith  
comme second foyer de l'orbite lunaire
-  First mention of Lilith  
as second focal point of the lunar orbit
-  Erste Erwähnung von Lilith  
als zweitem Brennpunkt der Mondbahn
-  Dada und Duchamps Fountain
-  Dada and Duchamp's Fountain
-  Dada et la Fontaine de Duchamp







## Myths

-  White-**red**-black and triple moon goddess?
-  White-**red**-black and the "**green**" goddess
-  Sleeping-**Beauty**-Dreaming




## Public Relations

-  Teslacard Postcard Action 2010
-  Mountain Astrologer ads
-  Delphi for Palm OS

## Zeitzeugnisse

-  Discoveries revisited
-  Web archives
-  usenet odyssey
-  Mondfaden
-  Möbius lego
-  Timeline

## Art

-  Die neugierige Statue
-  Elemental improvisation
-  Visual art gallery

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
🦋 artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## synthesis

Eventually synthesize something tangible from elements defined in terms of in/out, rest/move, and their transformations; hopefully including new physics. . .



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## measurement

Using a camera, emo and ero could be defined as the difference between two images taken shortly after each other. Differing pixels would be emo, same pixels ero. For example, a ball that rolls down a slope would itself not be emo as a physical object, but emo would be the area the ball spawns between the two images (excluding the middle if the ball is uniformly colored).



A camera can only register ero and emo, and thus only transitions  $\text{ero} \leftrightarrow \text{emo}$ , while transitions that would cross between in and out would not be part of the picture.

Measurement inside might be done indirectly by measuring brain activity, or maybe by considering what is recurring inside, some maybe rather abstract insights (eri).

The most basic form of eri might be pairs of opposites, which could maybe be assembled to form more complex concepts, possibly inspired or guided by zodiacs and similar cultural concepts.

## leads

- Even if a formal model of the elements defined in terms of in/out and rest/move and their transformations grew into a 'scientific way of doing metaphysics', as aimed at in Kant's *Prolegomena to Any Future Metaphysics That Will Be Able to Present Itself as a Science*, it would essentially be air, something that rests inside the mind (eri). It would not be complete without also including the other three elements in some form, say, in performance art, or whatever.
- Moreover, it would likely not be possible to deduce the whole world from the definition of elements alone, at least doing so would likely be as hard as finding a theory of everything in modern science. Some additional, a priori unprovable assumptions would be necessary to synthesize the world.

- The concept of a “ball” is a priori much more complex than comparing two images, which becomes evident once you try to program computers to recognize (3-dimensional) items on 2-dimensional images. How a ball comes to be in the mind appears to require a lot of interaction with the environment (often quite early as a child), and in the end it is philosophically not so clear whether a “ball” is rather a natural thing, something that objectively exists, or instead rather a purely abstract cultural creation useful for interaction with others. See also Kant or Plato’s Allegory of the Cave.

The above definition of  $\text{emo} \leftrightarrow \text{ero}$  appears thus fundamental, but is possibly already different from immediate experience of the world in which a rolling ball is never seen as two crescents. It reminds also of the shadows in Plato’s Cave, which even remind of the souls of the dead that dwell in Hades as shadows, as depicted in Homer’s Odyssey. In other words, the above definition might already project reality onto something in which crucial information might already be lost, or not.

- Could maybe only activity cross between in and out, but not elements? Would activity travelling from in to out transform both  $\text{eri}$  to  $\text{emi}$  and  $\text{ero}$  to  $\text{emo}$ ? That would at least be consistent with a camera only recording  $\text{ero}$  and  $\text{emo}$ .
- In a harmonic oscillator, two kinds of energies are transformed into each other. For example, for a mass on a spring, the energy in the spring transforms into the kinetic energy of the moving mass and vice-versa. This gives the motion of the oscillator four special states, when either of the energies is extremal. And the motion between these states is periodic, thus overall reminding of the circle of elements.

However, the natural pairing of extremal states of a harmonic oscillator is opposite states in the cycle, which naturally fits rest/move in the elemental circle, but makes it hard to relate two pairs of *adjacent* states to opposites like active/passive or in/out in a natural way.

- The four elements can be grouped into 3 different pairs with opposing attributes, including maybe these:

<b>rest/move</b>	<b>in/out</b>	<b>passive/active</b>
bind/release	wet/dry	cold/hot
	soft/hard	heavy/light
	malleable/brittle	inert/swift
	mixed/isolated	dense/thin
	collective/individual	dark/light
		female/male
		moon/sun
		night/day
		un-/conscious

Some pairs on the right have a historically patriarchal touch, which however still partially reflects nature.



# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

### References

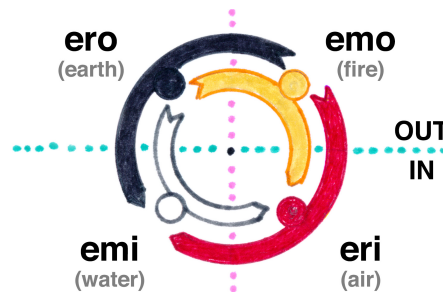
### Seeds

### Links

## psyche

Given the immediate experience of life would be essentially along the circle of elements, everything the psyche does and experiences, like thinking and feeling, would also essentially be along that circle. In other words, life as personal experience (psyche) would essentially happen along that circle.

In the model of elemental transformations in the zodiac from the *star signs* section, all star signs transform from outer to inner elements (except for the desired element). Inside is where one might suspect the psyche to be.



Could the argument be reversed, would an assumption that the psyche is inside imply the transitions of the zodiac? At least they are general in the sense that for each element they select the transition from the outer adjacent element via the element itself to the inner adjacent element.

So all transformations in life would be about learning in the broadest sense, end up inside, but with hopes also for outside, maybe even often as offspring, new life.

And the psyche would be closely related to e5.

## leads

- The four tasks of Psyche in Apuleius' *The Golden Ass* are about elemental transformations of nominally the *psyche*.

The four tasks are in the middle of the book, nested threefold into the outer story of Lucius as an ass, the fairy tale of Cupid and Psyche, and Psyche's visits to different deities for help, until she ends up at Venus who poses the four tasks to her.

While the two outmost stories are based in part on well-known older myths and folk tales, and the ancient gods reflect their well-known natures, this appears not to be the case for Psyche's tasks. Instead it is more likely that Apuleius devised them himself or at least that they emerged around his time, as a way to convey certain new ideas.

Only few of Apuleius' works have survived. One is *On Plato and his Doctrine*, a biography of Plato plus an outline of part of Plato's philosophy, another one is *On the God of Socrates*. He also translated Plato's *Phaedo* from Greek to Latin, where Socrates argues for the immortality of the soul on the evening before his death by hemlock.

The word that Plato used for soul is *psychê*, literally ancient Greek for a *butterfly*, that mystical short-lived creature.



A butterfly is often seen as either resting on a flower or else fluttering on to the next one, which reminds of the psyche, which often dwells a while on a topic, then “flutters” on to the next, often also in a rather random looking way.

Apuleius lived in a very fruitful time in which many symbolic systems found a form to stay in for many centuries by melting Greek and Egyptian/African views into something new: Star signs got their attributed elements; in Stoicism the highest, lightest form of pneuma was called *psychê*; in alchemy the transition towards the philosopher's stone black-white-yellow-red is the same order of elements as apparently in Psyche's tasks; a mummy reminds of the chrysalis into which a caterpillar weaves itself and later emerges as a butterfly, a cocoon as sort of a vessel towards a higher life; leading back in time to silkworms, the changing colors of a mulberry and the great goddess, or forward to then upcoming religions like Christianity that feature the idea of an immortal soul, and so on.

The original title of the book was *Metamorphoseon Libri XI*, which is likely why Apuleius might have devised the tasks of Psyche as elemental transformations of the soul and placed them at the very center of his masterpiece.

- Myths may have carved out the cycle of elements more closely and in a more streamlined way than most other stories, as in myths originally only what felt ultimately important was worth the effort of remembering it by heart during life and transmitting it orally from one generation to the next. Myths around star signs, in particular, might even more specifically reflect only certain segments of the cycle of elements.
- Observing something that happens outside (emo) can lead to insights into the workings of the world (eri), so the psyche would have operated along the circle of elements, emo → eri. Natural sciences would be a lot about this part of the cycle, relating essentially experiment (emo) and theory (eri).

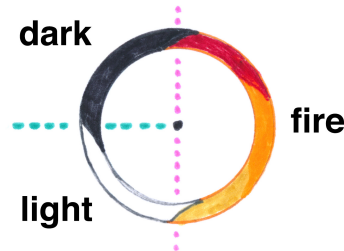
You could, for example, not learn much of what a cube is, unless it moves (emo) or if you move yourself and look at it from various angles or turn it in your hand (eri → emo). Just looking at a cube from a single perspective (ero) would not allow to learn much about a cube as a physical object with specific properties and symmetries, but could still change your mood (emi). Such a mood might still allow to learn something in the sense of later being able to recognize a cube if you encounter another one from a similar angle, but not much in a consciously analytical way, and arguably recognition might rather come indirectly from a transition emi → eri, from learning inside from different moods.


Even though in the model of the star signs, transitions would in the end tend to go inside, in practice things would often involve both ways, for example, when looking at a cube from different sides, both moving it, eri → emo, and learning from its movements, emo → eri, in a close feedback loop.

At emi much more may already be going on unconsciously than is obvious, there may already be a lot of comparing of different experiences (ero) happening in the background, which then eri could analyze by observing emi inside similarly to emo outside. And what eri would postulate, would again create an emotional reaction, and so on, to be ruminated.

- How would the maybe more subtle view of dual female and male elements in the I Ching fit here? And generally into the astrological model of transformations in the Western zodiac? What about the Chinese zodiac, which probably emerged roughly around the year zero like similar systems in the West? Does it also mirror elemental transitions of the psyche? Or maybe something else? What about other zodiacs?
- Is it true that the psyche is inside, that all would travel inside during life, or is that more of a Western view, not ultimately true? But maybe part of the truth if adding similar transitions “the other way” to balance it, or in some other ways?

- In prehistory the psyche may not have been much able, yet, to distinguish what it can influence outside vs. inside: The world of the psyche would have first consisted only of the state outside, ero (dark/black/earth), the flow inside, emi (light/white/water), plus life, eri and emo (fire/red). Hence what could be thought inside and done outside would have been mixed into a single experience of daily life, while the outer state of the world and the inner flow of feelings seemed essentially given, predominantly beyond human control.



- Colors do not fit perfectly in the prehistoric circle. Black fits well with earth and white fits well with water, but ero, as it is outside, would at first seem brighter than emi which is inside. But maybe this is again thinking too much in today's terms: The outside world might only seem bright due to light (fire) like from the sun, but in itself would be dark, as revealed at night. Similarly, inside the mind is not like inside a dark cave, but can be arbitrarily filled with light at day and night. Of course, the ability to first preserve and later on create fire would have made a great difference in those respects. Note that I switched the fire colors in the illustration so that the darker color (red) is closer to black and the lighter color (yellow) closer to white, actually as in alchemy.
- Before agriculture, people essentially had to follow nature. Where to stay, where to find something to eat, was beyond human control. Similarly, the flow of feelings, dreams, visions was not something people could approach analytically at first. That probably came in time by telling stories, with mythology and other stories. Abstract concepts like love were first personified as deities like Aphrodite/Venus, only later things became more abstract, as in Greek philosophy.
- Reading a text silently was apparently not usually done in antiquity. Texts were rather recited aloud, hence also texts often in rhymes to give them rhythm and melody. Thus in and out of what the psyche actively did were still somewhat mixed up into one: no thinking without speaking or acting.
- The circle reminds of the Lakota "Medicine Wheel" , as well as of other similar circles, including the Chinese one.

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
☾ artemis

### synthesis

measurement  
psyche

## References

### Seeds

### Links

## References

- Andreas Schöter. *Bipolar Change*. Journal of Chinese Philosophy. Volume 35, Issue 2, p. 297-317 (June 2008).

**Abstract** I reconsider the natural characterization of change and non-change that arises from the algebraic approach: this sees change as yang in contrast to nonchange, which is yin. Following a persuasive example from Alain Stalder, rather than consider change solely in contrast to non-change, I develop a formal characterization of different forms of change considered relative to each other. This extension allows the internal structure of a change to be made explicit in a new way, bifurcating the change into yang parts and yin parts. I call this extended definition of change *bipolar change*.

**Links** [Preprint] [Publication]

- Thread *exactphilosophy.net 2018 (1 Nov)* at the Usenet newsgroup alt.philosophy.taoism (Nov 2018).

**Links** [Archive]

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
🦋 artemis

### synthesis

measurement  
psyche

## References

### Seeds

### Links

## Seeds

*The more complex the mind, the greater the need for the simplicity of play.* – James T. Kirk, *Shore Leave*

This website has already several “children”, and some more might *maybe* emerge in the future. . .

## Artecat

Books and more related to this website at [artecat.ch](http://artecat.ch):

**Artecat**  
Alain Stalder

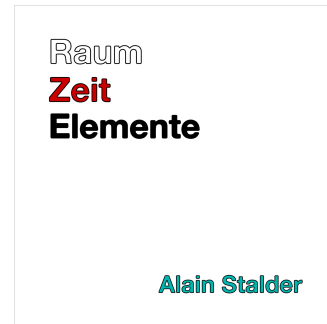
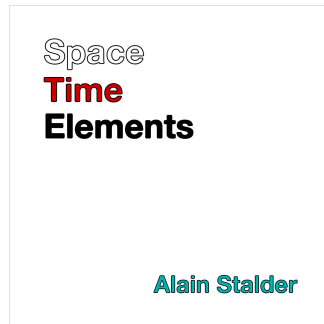


With books that reproduce web pages and articles of this website as printed books, as well as as free PDF ebooks, plus books that bring specific subjects to hopefully a wider range of readers in accessible form, and in time maybe 3D prints, posters, videos, and more. . .

A 3D print of the Möbius Strip of elements, maybe also as jewelry, like as a bracelet, might maybe in the future turn into a key vehicle for arousing broader public attention. . .

## Space Time Elements

Maybe sometime in the future I will write a book about the elements, covering history, and even prehistory, to the present, plus my findings, [space-time-elements.com](http://space-time-elements.com):



Or maybe I would publish that in a different form, say, as a long introduction in a future edition of the pocket book *Space, Time, Elements at exactphilosophy.net*, etc.

# ELEMENTAL

Rumor has it that **Jack Daw** (yes, the legendary Jack Daw) would be writing a new book that would include some key ideas from this website in his inimitable style.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



## Welcome

### way

space and time  
metamorphosis  
greek philosophy  
i ching ☯  
origins

### evolutions

mixed feelings  
star signs  
🦋 artemis

### synthesis

measurement  
psyche

## References

## Seeds

## Links

## Links

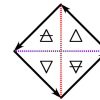
### Yi Jing Algebra

Mathematical approaches to the I Ching, by Andreas Schöter.



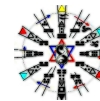
### Greek Elements

Detailed article by John Opsopaus; from ancient Greece to Jung.



### Energy Language

Images speaking about elementary cycles and more, by Billy Culver.



### Four Elements

Inspiring book by John O'Donohue; breath, tears, hearth and sphinx.



### Apocatastasis

Emil Lips' considerate synthesis of 'everything' from three dualities...





# Articles

All articles linked in the “artemis” section, in the order listed there, without articles in German and French when there is an equivalent English version. In effect there are two articles in German, “Mondfaden” and “Die neugierige Statue”, all others are in English.

Also reproduced are some articles in the ZIP files linked in articles under Zeitzeugnisse in the “artemis” section. The German word ‘Zeitzeugnis’ literally means “witness of time” and is used to designate historical documents or other artifacts of some potential value.

Note that instead of the original discoveries.pdf which is rasterized at 300 dpi, a non-rasterized but otherwise identical copy, discoveries-hires.pdf, is reproduced in this book.

## SHA3-512 Hashes

The cryptographic hashes of the two ZIP files in which I preserved the Zeitzeugnisse, plus the same for two selected documents in one of them.

- discoveries.zip (<https://www.exactphilosophy.net/discoveries.zip>)  
 91524dc03c3e155b620937956f5b545e0b6ab818091233c42920b7fd72a91bf4  
 2c3c8bc72cc6fea4bbd59b99de55c961dfc2076734e12b51c29d1e81f05a764d
- discoveries.pdf (in discoveries.zip)  
 9c0e02bc10fc58bc31c0c17627367e8db74b41e2aa1768b3af3a7cac01e0d112  
 5dca437b50f9f8ce5bc7c13396a7decaa2dd0be09fc351ea4a48f1ab2271fb4c
- review.pdf (in discoveries.zip)  
 c5baf4d5cd1c2f52f1364a9bfb2d92c6b4702604d70cefb778ffb659322fbd50  
 4e5385d70e00f4154a633752a9eb2ff32f48cf3081ec0d7f752438cb96fcf889

## Note on small text

See [blue](#) headers on pages with small text for information on which page or pages magnified text can be found. If all else fails, use the online version on the website and zoom in, or do this with one of the free PDF editions from the places mentioned in the preface.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Welcome to my garden. . .

My web site exactphilosophy.net is essentially a garden. From time to time, new things grow and sometimes others are cut back, hopefully becoming more and more beautiful and natural in time. While some articles and exhibits in the “artemis” section are rather curiosities or art, others are very straightforward and self-contained presentations of quite specific facts or ideas. In time, some of my thoughts have and may appear in the form of generally accessible books. See the website of my one-person publishing company at [artecat.ch](http://artecat.ch):

**Artecat**  
Alain Stalder



My web server at my home near Zürich (district Horgen):



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## What is exactphilosophy ?

A new word for the dictionary that I would define maybe like this:

*exactphilosophy* n.

A way of doing philosophy that aims at eventually producing scientific hypotheses, while avoiding internal inconsistencies (or making them explicit) and correcting factual errors whenever detected. It avoids to make things too specific unless they are carefully settled, influenced by ancient Asian traditions, especially by the Tao in Chinese philosophy, and by pataphysics. It could be imagined as floating around 'reality' like a magic carpet, while gently trying to settle down, with a care similar to the proverbial fox in China crossing a river on thin ice.

Note that this is about *exactphilosophy* in *one* word and *not* capitalized.

The adjective would be *exactphilosophical*, the adverb *exactphilosophically*, the verb *exactphilosophize*. Privately, I often abbreviate exactphilosophy as *xphi* or even, more rarely, as *xφ*.

## A few associations

First of all note that exactphilosophy is intended to be a *word in the dictionary*, a name given to a novel concept that did previously not exist in this form; it is not a brand or organization, never in competition with anything like that.

The fox icon of this website is related to hexagram Wei Chi (64) of the *I Ching*, especially as translated and interpreted by Wilhelm/Baynes, which mirrors the above definition of exactphilosophy closely.

Taoism is related a lot to xphi; you might even want to substitute xphi for tao in the first chapter of the *Tao Te Ching*, but many things fit, like chapter 66, or Zhuangzi's "magic pearl" in Wilhelm's translation to German, and more...

Another important influence was Kant's *Prolegomena to Any Future Metaphysics That Will Be Able to Present Itself as a Science*, and others of Kant's works, making xphi also akin to metaphysics.

Also related is Alfred Jarry's *Gestes et opinions du docteur Faustroll, pataphysicien*, hence pataphysics, which, for example, contrary to metaphysics as defined by Aristotle, would also include singular events.

Note also that the fox in the logo of my website is not alone, but closely and harmoniously accompanied by some sort of "p" comet or something, and vice versa, a combination I call "foxyfox", by the way.

Roseanne Roseannadanna's fable of the Egyptian fox.

exactphilosophy.net

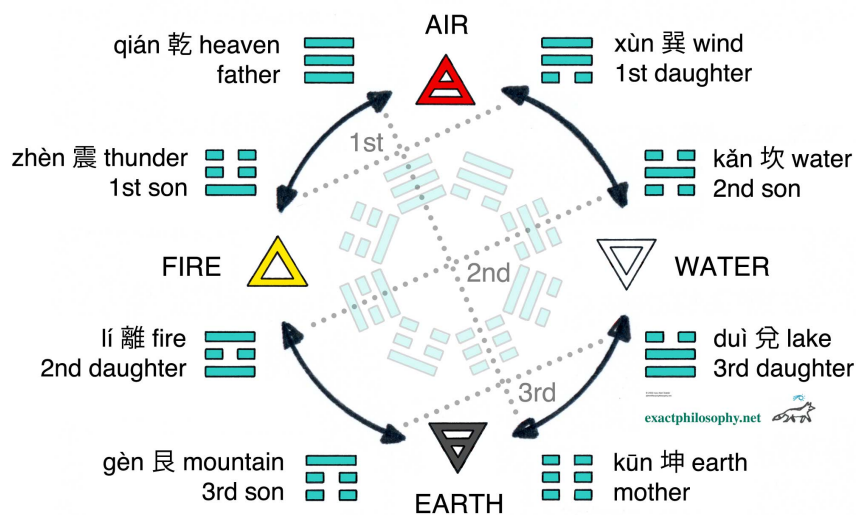


avantgarde

## Elemental changes in the I Ching ?

### Abstract

A new way of arranging the trigrams of the I Ching in a circle is presented for consideration and discussion. Here it is in advance:



The eight trigrams are tentatively interpreted as the eight possible transitions between the four “Greek” elements Earth, Water, Air and Fire along Aristotle’s circle of the elements. The new arrangement features also some very interesting structures and symmetries, which will be exposed in detail later on.

However, no common historical roots of the I Ching and the ancient Greek elements are known, and also no roots of the above arrangement in Chinese history, although it is similar to the traditional Earlier Heaven arrangement. So did maybe both cultures mirror nature independently, even unknowingly, or is this maybe just a coincidence, or a bit of both, or...?

Not being an expert on ancient history (I am a physicist) and considering worldwide interest in the I Ching, I thought it would be best to simply present this structure as carefully and minimally as possible.

In the following, first a quick overview of Aristotle’s circle of elements and the ancient elements as natural phenomena, then to the I Ching and finally to the new arrangement of the trigrams with its symmetries.

## Aristotle's circle of the elements

In *On Generation and Corruption* (around 350 BCE) Aristotle defines elements by properties that can be felt by *touching*. He names cold-hot, wet-dry, fine-coarse, soft-hard, brittle-malleable and reduces the last four opposites to wet-dry. Then he defines the four elements as combinations of these two pairs of opposites cold-hot and wet-dry: Earth as dry and cold, Water as cold and wet, Air as wet and hot, Fire as hot and dry.

He arranges the elements in a circle, in which at each transition only one of the properties cold-hot or wet-dry is inverted: Earth gets wet, becomes Water, gets warm, becomes Air, gets dry, becomes Fire, gets cold, becomes Earth again, and also the other way round in the circle:



There are thus 8 possible transitions along this circle, the same number as the number of trigrams in the I Ching.

In the tradition of the Stoics and other schools that emerged in Hellenistic times, Earth and Water were later usually considered passive, heavy and female and Air and Fire active, light and male.

## The Greek elements as natural phenomena

According to today's chemistry and physics, considering the material world to be composed of earth, water, air and fire would, of course, be wrong. But if you interpret Earth as *solid*, Water as *liquid*, and Air as *gas*—the most commonly encountered *states of matter*—and interpret Fire as a *chemical reaction or physical phenomenon that creates light and possibly heat*, this makes more sense: Practically everything you could encounter in daily life in antiquity would fit into one of these four categories, would be either solid, liquid, gas or some sort of Fire, or a mixture of these four, like, say, mud a mixture of Earth and Water. Transformations of the elements, like, say, ice melting and then evaporating (Earth-Water-Air) or a fire that transforms wood into smoke and gas (Earth-Fire-Air), would often be part of Aristotle's circle.

## The trigrams as transitions between elements

The following three sentences in the introduction of the Wilhelm/Baynes translation of the I Ching had been in the back of my mind for years, but only in August 2016, I found a concrete, specific way of applying them:

*The eight trigrams are symbols standing for changing transitional states; they are images that are constantly undergoing change. Attention centers not on things in their state of being—as is chiefly the case in the Occident—but upon their movements in change. The eight trigrams therefore are not representations of things as such but of their tendencies in movement.*

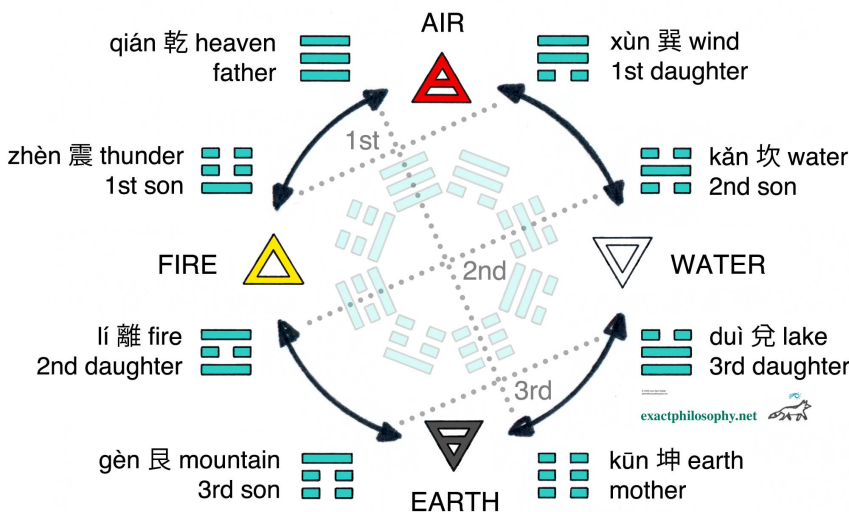
Hence eight trigrams as 8 transitions between 4 elements? In order to approach the specific arrangement step-by-step, let me start with a table of the trigrams, as given by Wilhelm/Baynes:

☰	qián	heaven	strong	creative	father
☷	kūn	earth	devoted/yielding	receptive	mother
☳	zhèn	thunder	inciting movement	arousing	1st son
☵	kǎn	water	dangerous	abysmal	2nd son
☶	gèn	mountain	resting	keeping still	3rd son
☴	xùn	wind/wood	penetrating	gentle	1st daughter
☲	lí	fire	light-giving	clinging	2nd daughter
☱	duì	lake	joyful	joyous	3rd daughter

Now let me tentatively group them into pairs of “Greek” elements:

☰	qián	heaven	<b>Air</b>	(rests)	male
☴	xùn	wind	<b>Air</b>	(moves)	female
☷	gèn	mountain	<b>Earth</b>	(rests)	male
☷	kūn	earth	<b>Earth</b>	(moves)	female
☲	lí	fire	<b>Fire</b>	(rests)	female
☳	zhèn	thunder	<b>Fire</b>	(moves)	male
☱	duì	lake	<b>Water</b>	(rests)	female
☵	kǎn	water	<b>Water</b>	(moves)	male

And finally arrange them in Aristotle's circle, letting the transition end with the corresponding element in the table above and start with a female element (Water or Earth) for the female trigrams (mother and three daughters) and with a male element (Fire or Air) for the male trigrams (father and three sons):



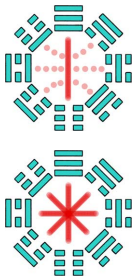
☰	qián	heaven	<b>Air ← Fire</b>	Air risen from fire
☴	xùn	wind	<b>Air ← Water</b>	Air from evaporated water
☶	gèn	mountain	<b>Earth ← Fire</b>	Earth from solidified lava (Fire)
☵	kūn	earth	<b>Earth ← Water</b>	Earth from sediments deposited by water
☲	lí	fire	<b>Fire ← Earth</b>	Fire from burning matter (Earth)
☳	zhèn	thunder	<b>Fire ← Air</b>	Fire as lightning from the sky (Air)
☱	duì	lake	<b>Water ← Earth</b>	Water sprung from sources (Earth)
☴	kǎn	water	<b>Water ← Air</b>	Water fallen as rain from the sky (Air)

Note that this circle is none of the two traditionally known ones, neither the *Earlier Heaven* nor the *Later Heaven* arrangement of the trigrams:



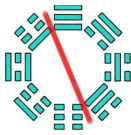
*The trigrams seem to fit closely:* Thunder as fire that has suddenly come down as lightning from the sky (Air), in contrast to fire steadily clinging to the matter (Earth) it burns; wind as air that gently evaporated from water, in contrast to gases from a fire risen to heaven; a lake as water sprung from sources (Earth), in contrast to water fallen down as rain from the sky (Air); a mountain as earth solidified from lava (Fire), in contrast to softly yielding earth from sediments deposited by water.

The arrangement has also the following additional symmetries:



Sons and daughters are grouped in order of birth from mother to father (gray dotted lines above).

If you mirror the lines of each trigram at their middle line (i.e. swap first and third line) and invert all three lines of the trigram (yin ↔ yang), you get exactly the lines of the trigram opposite in the circle.

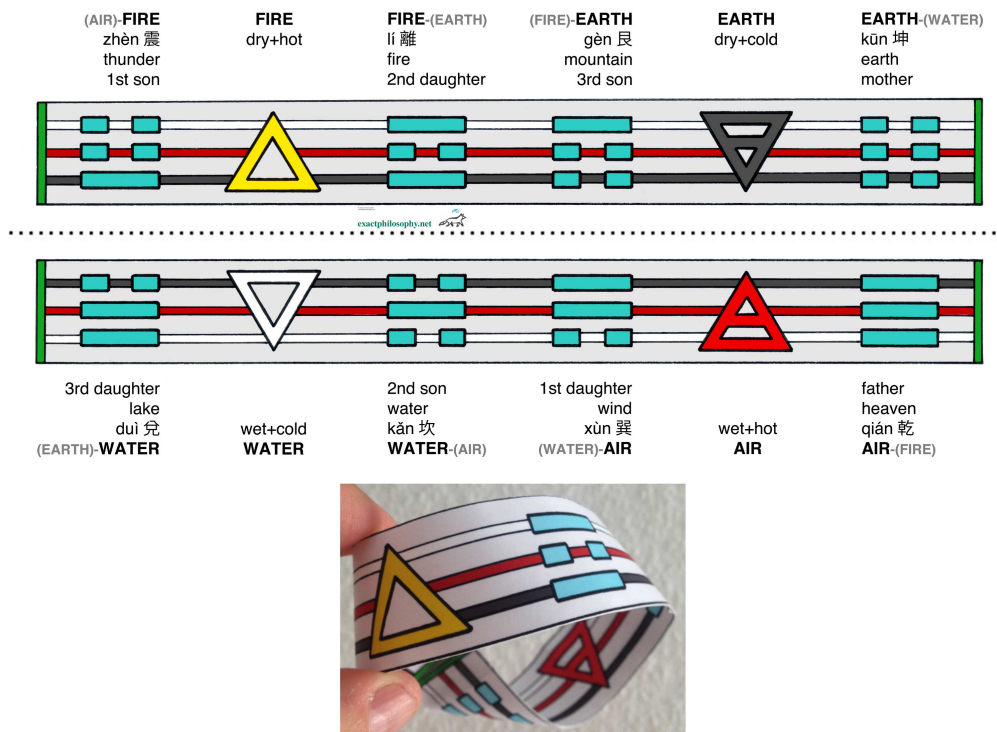


The middle line of each trigram that transforms to or from a dry element is a broken line, which would fit with Aristotle's view that dry is brittle, hence can be broken more easily than wet.



Excluding the middle line, between adjacent trigrams in the circle always exactly one line is inverted (yin ↔ yang).

Here is another way of representing the structure, along a Möbius Strip, inspired by the images on Billy Culver's "Energy Language" [website](http://www.billyculver.com/). Note that each yin line on one side of the strip touches a yang line on the other side, and vice-versa, and that the symbols for the Greek elements overlap, too.



## Conclusion

My conclusion is twofold. As a physicist, I find that the number of symmetries is a bit too high for immediately assuming a pure coincidence. Judging how well the trigrams correlate with elementary transitions in the proposed way, however, is more difficult, first fundamentally, because it is prose and not math and second for me personally, because I am not an expert on ancient Chinese culture, so my overview is limited and based on translations. This is why I wrote this up, as a starting point for anyone interested to take a closer look. . .

This is not to say that I have no further ideas regarding this and the I Ching and the elements, but nothing further that immediately fits the focus here; for more see my website [exactphilosophy.net](http://www.exactphilosophy.net).



**PS:** Note that you can click on most illustrations in this text for the individual image with higher resolution. Feel free to share these images with whoever you think might be interested, if possible preferably with a link to this article or to work that references it.

**Previous related work:** I am not aware of previous work that features the same arrangement of trigrams as presented here. Considering the millennia of considerations of the I Ching, it might however be very likely that someone did in the past.

That said, this article features more than “just an arrangement of trigrams in a circle”, namely a *model* in terms of elemental transitions behind it. Quite generally, this article is rather pan-cultural or even non-cultural, relating to the I Ching as well as to ancient Greek and Indian views on the elements, and probably to any other culture and its views on “elements”. And note that the main illustration in this article features 12 not 8 symbols in a circle, hinting thus also at possible relations to various zodiacs, most likely, though, the Chinese one.

Moreover, note that I originally got to this model coming from a definition of “elements” in terms of in/out and rest/move, which you can find in the main part of my website.

What I am aware of is that at least two people attributed trigrams in pairs to elements in the same way as I just presented here (i.e. Fire to fire/thunder, Air to heaven/wind, Water to water/lake and Earth to earth/mountain). These two are **Bradford Hatcher** ([hermetica.info](http://hermetica.info)) and **Karen Witter** ([WheelOfTarot](http://WheelOfTarot)). Bradford Hatcher brought this to my attention in January 2017 and told me he had been using this “since 1976”. References are Bradford Hatcher’s books *Tarot as a Counseling Language* [1] and *The Book of Changes: Word by Word, Vol. 1, Part 2* [2], and Karen Witter in a post to her Yahoo Group of 1999 [3].

- [1] This book is available on his website [here](http://hermetica.info) (html). Search the text for “I Ching” to find a subsection where he explains the attribution of trigrams to elements, referring also to Karen Witter and earlier roots by Aleister Crowley. Note that both BH and KW group trigrams also into two sets of four elements, “archetypal” elements (heaven, water, earth, fire) and “attributional” elements (wind, lake, mountain, thunder). See also [this table](#) in the book for these attributions.
- [2] This book is listed prominently on his website [hermetica.info](http://hermetica.info) and can also be downloaded as a [pdf](#). See the descriptions of the trigrams in part 2 (vol. 1), or search for “Greater Earth” to find this maybe more easily. In that book he uses “greater” and “lesser” instead of “archetypal” and “attributional” to distinguish the two sets of trigrams.
- [3] Here is a [link to her post](#) and an excerpt from the post:

1. There are 4 archetypal elements and 4 attributional elements in the I-Ching.  
Shown below; 1=line, 0=broken line, left to right=top to bottom:

Archetype Air (Heaven) 111  
Attribute Air (Wind) 110

Archetype Water (Water) 010  
Attribute Water (Marsh) 011

Archetype Earth (Earth) 000  
Attribute Earth (Mountain) 001

Archetype Fire (Fire) 101  
Attribute Fire (Thunder) 001

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Elementary star signs

This text about the star signs is something very special. . .

. . . at first apparently quite novel and some things might appear a bit strange at first, but in the end it is still something already very familiar, just described a bit differently, in which everybody can mirror her- of himself and also loved or otherwise close people.

I describe the 12 star signs of the (Western) zodiac—Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius and Pisces—in a novel, very elementary way, which is, yet, very rich and familiar in the end, and hopefully also conveys a lot of sympathy for and understanding of the star signs and what moves them in their innermost cores.

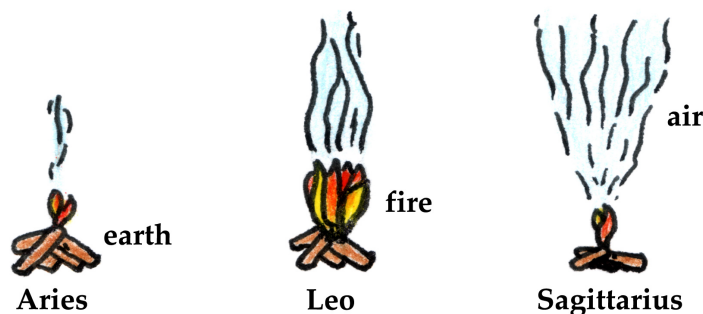
The whole idea can hardly be skated around in advance in a generally accessible way, so let me simply first give a concrete example (Aries) and then expose my model for all star signs, with some applications and comparisons with what other astrologers already wrote about star signs, in order to connect the idea to more familiar things. At the end follows a review with an attempt to carve out the overall structure of the model as simply and clearly as possible.

Please take some time to let yourself immerse into this.

### Example (Aries)

I am starting with Aries, the first star sign of the zodiac:

In my model, **Aries** is the first stage or phase of a transformation from **Earth via Fire to Air**.



I am sure this must now sound abstract and arbitrary, but this is much, much less the case than it appears, which I can only explain gradually, step-by-step.

Let me start with a real fire.

A fire needs two things to burn: Some fuel like wood or coal, hence something that often reminds of the element Earth, as well as the oxygen from the air, hence roughly the element Air. In addition, when a fire burns, most of the fuel disappears practically invisibly into the air, as gas and smoke, and in terms of solid matter only a small heap of ashes remains.

Thus 'Earth' is transformed by Fire into 'Air'. And why Aries as the first stage of this transition? Well, Aries is the first of the three Fire signs Aries-Leo-Sagittarius in the zodiac. Aries is still very much rooted in immediate reality, close to the ground of reality, but already filled with lots of fire and aspirations to higher things, like more reason, knowledge, justice, which would astrologically all be Air themes. Sagittarius, as the third and last Fire sign, is already like Zeus/Jupiter, who rules the sign, high up in the air and considers the world from above, only from time to time he lets fire speak, when he throws a thunderbolt or seduces a maiden. Leo, as the second Fire sign, is in the middle, where the fire burns with most intensity, is most focussed.

But maybe first a quote from well-known astrologer Liz Greene about Aries, to make the matter a bit more vivid:

*The Ram was known to the Egyptians as the primeval god Ammon, or Amun, whose name means 'the hidden one'. This antique ram-headed deity was said to be the force behind the invisible wind. He was also called 'he who abides in all things', and was imagined as the soul of all earthly phenomena.*

— Liz Greene, *The Astrology of Fate* (Weiser 1984), in the chapter about Aries

Liz Greene instinctively used the right words: 'earthly' comes from 'Earth', hence the element Earth, and 'Wind' is moving air, hence the element Air. Also the word 'soul' fits in very well, as follows.

The human physical body (Earth) is mortal, ephemeral, but the mind (Air) can create ideas and theories, which can be communicated and written down, hence can become sort of immortal. That is where the transformation of the Fire signs lies, it is about the aspiration to something higher, about transforming the mortal human body (Earth) with help of Fire, with imagination and energy etc., into something immortal.

And the soul is considered immortal—but the soul is not really (only) like the element Air, it resonates also a lot with feeling and fate, hence with the element Water. And Water is exactly the one element of the four Greek elements that lacks in the transformation of all Fire signs, they actually often lack compassion and comprehension for their fellow human beings, also Aries, despite his noble goals for all people.

Liz Greene often emphasizes this theme in *The Astrology of Fate* for the Fire signs, like for Aries, where Jason cheats on Medea, or for Leo, where Parsifal has at first no comprehension of the purpose of the Grail, but learns is later, or finally for Sagittarius, where the centaur Cheiron finally sacrifices his immortality for someone else, thus in a way fulfilling the "task of the Fire signs" of learning to feel and show compassion.

Another, much older source, where the elementary transformation of the fire signs (and also of the other star signs) is visible, is in the four tasks of Psyche from *The Golden Ass* by Lucius Apuleius from the second century CE. In the

story, Lucius is transformed into an ass and experiences lots of adventures. As a story within the story, the *Fairy Tale of Cupid and Psyche* is told, where the god Cupid, son of the love goddess Venus, falls in love with Psyche, the most beautiful woman of the world. And, as another story within the story, the story of the four tasks of Psyche is told, which Venus, jealous of the already pregnant Psyche, poses to her, in the ostensible intent of having her fail. The four tasks correspond to the four elements, as I hope to show, and as others already tried to assign them, although, in my view, often the wrong way round. But more about that later, here the task which I relate to the element Fire, the third task.

This task consisted of bringing back, before nightfall, a goblet filled with water from the river Styx, which flows eternally in a circle. But the river is surrounded by steep, sharp rocks, guarded by monsters and in addition its water is poisonous. So, no getting through for an Aries who likes to fight on the ground of facts, sort of with his horned head through the wall; a solution can be only be found with oversight from high up in the air, in Apuleius' story when Jupiter sends Psyche an eagle, who flies from high in the air to the middle of the river and fills the goblet with water.

Here all four elements come together: The Earth, where there is no getting through; the Fire, which makes it possible by its visual, imaginative power to get an overview of the situation (in order to see something visually, light, Fire, is required); the Air that had risen from the power of Fire, which can then easily find a solution from above; and finally the goal, Water, the immortal soul, which circles in everything, like the eternal Styx, to put it a bit poetically. . .

So much for this example, now first to the elements all to themselves and then to step-by-step descriptions of all 12 star signs.

(An overview of the structure of the model follows later, but if you are too curious, maybe take a peek already earlier further back in this text and then come back and read on? The theme of the Fire signs, and also the themes of the other star signs, as will become visible later, are mirrored here: Without having "lived", so to speak, through all transformations of the star signs, it is difficult to convey an overall view in a really accessible way.)

## The elements

Astrologers are usually well aware of the four elements, in most textbooks about astrology they are presented with at least a few keywords. Hence only a relatively short description here, although here and there substantiated in a maybe a bit unexpectedly specific way.

Fire and Air are described as male, active, warm, light elements, Water and Earth as female, passive, cold, heavy elements. According to Aristotle, in addition Fire and Earth are dry, Air and Water wet, which includes also more bendability, malleability and flexibility—this will be important later on regarding the structures in the model of the star signs, but now briefly to the individual elements.

**Fire** has certainly immediately to do with sources of light and heat, like with the sun, a fire, a light bulb or a thunderbolt, etc. In order to see something with the eyes, a source of light, hence 'Fire', is necessary; thus also figuratively visual imagination is associated with fire, simply because also in the head sort of a form of Fire is required to make an inner image visible. Thus any kind of visual imagination belongs to Fire, as well as a bit more negatively projections.

Of course such assignments are never really absolute and also not always in accordance with findings in natural sciences, but the things I described above are still very strong and often the dominating associations that Fire—of the four elements—clearly fits best.

**Air** also has a lot to do with thinking, but rather abstract thinking, not in images, because air is invisible. Air can also be very changeful, like the wind, or sort of unreachable, because it can neither be seen nor grasped, which can appear arrogant as well as fleeting, depending on circumstances. The association with language and communication comes about as follows: A word like “dog” is an abstraction from the corresponding living animal, in such terms it is then possible to think purely abstractly, logically, even without necessarily having to imagine a dog, and there are words which were abstract from the beginning, like justice, or think of mathematics, etc.

**Water** can flow or move in waves, which is associated with feelings. The flowing of rivers into each other can be associated directly with an increase of “influence”, hence with an increase of power, and for a river flowing downstream is unavoidable, also since Water is a heavy element, which both brings Water symbolically close to the forces of fate (due to ‘influence/heavy/unavoidable’). The flowing and moving of waves is certainly also close to music and dance and song, and love, as well as maybe also close to a belief in something, because, shared with others, like music, it creates a shared feeling of security within a community.

Every year afresh, **Earth** recreates new plants and trees, which also transform during the seasons. There is a certain stubbornness and hardness in this, a certain inability to gain knowledge, but I am getting ahead of myself, especially with realistic Earth it is maybe better to get to this with concrete examples.

But now for the star signs in detail. Und just to avoid too high expectations: The star signs are age-old and have already been lived through by so many people that I can by no means provide a complete and balanced description here. But what I can hopefully do, is convey that these transformations of the elements are actually present in the star signs, sort of as an inner *skeleton*, as the innermost structure of the star signs, but around that there is still a lot of flesh and spirit and soul and simply many ways in which to live with it and how to live it out. The discussion about the star signs does not end here, quite to the contrary.

## The Fire signs

What is common to all Fire signs in the model, is that they consist foremost of Fire, empowered or sometimes maybe even possessed by lots of imagination. The energy behind that is strongest in youth, hence in Aries, because he still has the biggest supply of Earth fuel, of physical power to waste. In Leo the energy is already a bit more tamed, but still wild, and Sagittarius has to use his energy often selectively demonstratively, like Zeus his thunderbolts.

The burning of Fire can also be seen as the Fire signs learning the path to abstract insights and thoughts and theories, sort of experimentally from reality, by at first failing repeatedly at reality, like the proverbial Aries, who runs so often headfirst into any obstacles that one might suspect purpose.

## The Fire signs – Aries

Aristotle also arranged the elements in a circle—Earth to Fire to Air to Water and then again to Earth—and in this circle, among the Fire signs, Aries is still the farthest ways from the element Water, in the direction of his life, thus for him learning compassion (i.e. Water) with his fellow human beings is at first hardly a theme for him, but it is still expected of him to learn this a little bit in his life. From Leo, this is already quite a bit more is expected, also coming from the image of a good king for his people, and definitely from Sagittarius.

On the other hand, seen the other way round, Aries is still very close to Water, it is simply “behind” him. That would for example fit Jason in mythology, who the magician Medea helped a lot in the beginning, and he married her and had children with her, until he forgot about all of that and cheated on her.

Or where young Jason carried an old woman across a river and lost a sandal. The old woman was the goddess Hera in disguise and the river symbolizes Water, of the elements, of course, the element he thus symbolically left behind. But the river is symbolically also where the dead were carried across, hence a symbolic rebirth, which one could well also see as the transition from Pisces to Aries, hence to the new astrological year.

In order to get a young fire like Aries burning, it takes at first a lot of care, you have to protect it from wind and, yet, provide air, so that it can catch on. The finesse of Pisces and the wisdom of the whole zodiac contained within them would fit this very well. And, last but not least, in my model Pisces would be composed mainly of Air, similar to Sagittarius, as I will expose later on.

Returning to the myth of Jason and Medea, she fits symbolically quite well with Pisces, not least in her sort of boundless revenge on Jason, where she did not even spare her own children.

In *The Astrology of Fate*, Liz Greene writes a lot more about Jason, and also about more Aries themes. For example, she strongly emphasizes the theme of a fight against the father for Aries. I am not sure whether she maybe exaggerates a little bit there, but the statement that in heaven there is only room for one god (Zeus/Jupiter/(Jahwe) would fit to some degree; in order to get up to heaven, you would have to chase others from there. Then again, such a hard exclusion fits rather with the element Earth than with the element Air.

## The Fire signs – Leo

*But the lion is a stage in a process, as Jung suggests; and it is this process or pattern which brings us into the sphere of the ‘fate’ of Leo. It would seem [...] that there is an alchemical work to be performed. The Lion is not permitted to remain in its bestial form, but must give way to something other.*

— Liz Greene, *The Astrology of Fate* (Weiser 1984), in the chapter about Leo

This fits, of course, very well with the model, it describes again a transformation. The body of a human being is rather the animal side, its spirit rather the human or even divine side, since thoughts can be passed on and thus have a certain immortality and immortality is also an essential property of gods.

Connected to that is also the theme of the *wound*, which Liz Greene emphasizes especially for Leo and Sagittarius in *The Astrology of Fate*. In the legend

of the Holy Grail, the Grail king is wounded at the lower part of his body and thus no longer potent, which fits, of course, again into the picture; with growing age the body is no longer able to produce offspring. Just read up what on Liz Greene writes about that theme for more details and insights.

*Leo at heart is a religious sign, using the word here as it was originally meant: to reconnect. It is the secret of his intensive need to create something which mirrors his own essential substance – be it a company, a book, a painting, a political movement, an airline, a scientific achievement, an empire, a photograph.*

— Liz Greene, *Star Signs for Lovers* (Stein and Day 1984), in the chapter about Leo

Incidentally, she relativizes this statement in *The Astrology of Fate*, I presume rightly, as follows, arguing from the elementary transformation.

A book, for example, is a mix of Earth (you can touch it) and Air (the textual content); hence even if a book mirrors maybe Leo in the middle of the transformation, it does not really live up to his goals, because in the end these are rather more immaterial than a book or a painting or a company. Also reconnecting, via belief and more, has is a relation to Water; Leo wants and must in the end feel something when he does something, it must be in relation to something that others wish for, which they dream of, sometimes including of the lion himself.

## The Fire signs – Sagittarius

The centaur Cheiron, one of the centaurs that had been lifted into the sky as the constellation Sagittarius in mythology was immortal, but once while hunting, he was accidentally wounded at the hip by a poisoned arrow shot by his good friend Herakles. Since Cheiron was immortal, he could not die of the wound, but, from then on, suffered permanently deadly pain.

Cheiron has a lower part of the body that is animal, of a horse, so it is symbolically again very fitting with the model that he was wounded there ('Earth') by an arrow and not, say, in the head ('Air', because one thinks with the head). His wound made it possible for him to learn compassion, no longer so much distracted by his animal instincts.

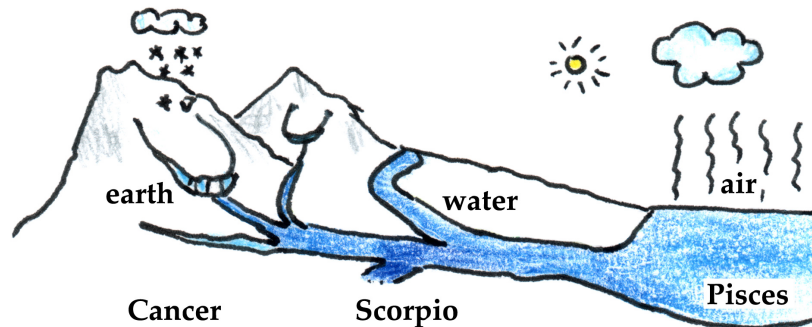
In the end he sacrificed himself, so that Prometheus, who had stolen Fire from the gods, could become immortal. Hence again the same theme: People down on earth get Fire and through that knowledge (Air)—the cycle of the transformation of the Fire signs—and in the end it is completed to immortality, just like at Apuleius with the goblet of water from the eternally circling river Styx, by Cheiron who sacrifices himself in his wisdom.

## The Water signs

The transformation of the Water signs is similar to the one of the Fire signs, it starts again with Earth and ends with Air, only this time Water transforms these two elements and this time the missing element is, conversely, Fire.

There are maybe two descriptive images for this. The most elementary one is water in its three aggregate states ice, water and gas/steam. Hence a block of

ice that melts and finally evaporates. Another image is the life of a river, from a source in the mountains, maybe out of glacier ice, to a river that flows down and grows until it finally flows into the sea and there evaporates again, with the power of the sun (Fire), in order to start the cycle again, when it returns as rain or snow to the mountain.



Cancer is the first Water sign, with its hard earthy shell (Earth), Scorpio as the second Water sign is already more flexible—'liquid' like Water—but still able to isolate herself from case to case, and Pisces as the third Water sign are then already hard to catch, the borders have blurred to gas (Air).

Or if you consider a river: A source has not yet mixed with other rivers, its water seems uniform to it, later when rivers flow together (Scorpio), symbolically different influences come together and must be processed in some way, until everything comes together in the sea and is relativized (Pisces).

That way again knowledge (Air) is created: From the experience of all that mixing with the other rivers, the river learns that there are different ways of seeing the world, as well as the realization that size is relative, because even if a river wins against all other rivers by being the larger one and thus defending the name of the river, compared to the sea, it is finally just small in any case.

In the end only an escape into imagination (Fire) helps here, resp. it is probably not fair to speak of escape, because, for one, it is a cycle, and on the other hand Pisces are the last star sign, the body sort of symbolically already close to death, imagination is the only thing that remains there, and that can certainly move even mountains and with gentle blows of Air maybe gently direct an Aries-style hero like Jason?

### The Water signs – Cancer

In Apuleius' story, the second task of Psyche consisted of getting some fleece from wild rams. These rams with poisonous teeth were grazing near a river, hence quite a similar situation as with the river Styx in the third task. Only this time, the solution was not visual imagination, but rather of a female nature, as to be expected for a female element like Water, it was rather experience and adaptation to natural cycles, or, put differently, getting a feeling of the situation to the degree of becoming one with it. Instead of trying anything when the rams were wild and awake, Psyche simply waited until the rams were asleep and also only took fleece which the rams had stripped off by their own fiery power on thorny bushes.

Similar to Aries, learning this is not so important, yet, for Cancer, he moves rather still in his very own cycles and thus interacts often also not so harmonically with his environment, rather still has some rough edges.



In *The Astrology of Fate*, Liz Greene associates one of the most famous heroes, Heracles, with Cancer, because the story how the crab came up to the sky is connected with one of the tasks of Heracles, namely the one where a crab pinched Heracles into the foot while he was fighting the Hydra in the swamps and Heracles stomped the crab, but Hera thankfully lifted the crab into the sky as the constellation Cancer.

This shows an important theme related to Cancer: The water of a source is the same as the water in the sea, Cancer itself already contains many different streams of water, which he does not understand and can hardly tame. In this sense, the crab, Heracles, Hera, the Hydra and the swamps are all aspects of one and the same Cancer, which partially fight or reward each other. The result of this often seems pointless at first, on the other hand, Cancer learns through this and gains experience and a story like the one of Heracles is also full of imagination (Fire), otherwise such an old story would be told anymore today.

It is just more difficult with Water to put these transformations rationally into words than with Fire. Take the USA (Cancer sun) for example. There it is often very difficult to predict who the next president will be, and, yet, the result of all these complex, and often also quite strange forces in the USA is creative and often has a positive image. (Of course, the USA cannot be reduced to Cancer alone, at lot more plays into it, and, yet, what I just wrote describes something essential already very beautifully—what comes out of the USA into the world is often quite special things that definitely remind of Fire.)

## The Water signs – Scorpio

*The time of the autumn floods had come and hundreds of wild streams were pouring into the great Yellow River. Its waters were swelling and swelling, so that from one bank to the other you could no longer tell an ox from a horse. The god of the Yellow River rejoiced; he had the proud feeling that there was nothing in the world that was not at his command. He let himself drift downstream on the glorious floods and thus arrived at the open sea. There he turned left and looked into the distance. But as far as his eye could reach, he could not see an end to the water.*

— Zhuangzi, from the chapter *The Floods of Autumn* (English translation of Richard Wilhelm's translation to German)

The above had been written by taoist philosopher Zhuangzi about 300 BCE in China, but it fits well here, also because in the Western zodiac Scorpio is in the middle of autumn.

In the following, the river talks with the god of the sea and learns from him about relativity. During his entire journey downwards, he had been solely busy with growing and seeing his apparent power grow and missed the opportunity to reflect on what he experienced, to learn and imagine things, like that there might be things that are still much larger than him and that his strife was maybe not be so important and ultimately necessary at all. As a smaller river, he would still have ended up in the very same sea.

Just as with Cancer, in *The Astrology of Fate*, Liz Greene writes also for Scorpio about a fight with the mother. The flowing into the sea can in that sense maybe also be seen as a liberation from the mother; resp. symbolically

that happens maybe rather through gaining knowledge and a perspective of what is and what else could be and what is really important in life.

But the other way round, of course, such insights can also serve to expand one's own power. Especially with the Water signs, this shows that a simple model like this one based on elements does not destroy the complexity of the star signs at all, in the end the same questions, themes and complexes remain, even if now some things are more structured, more made of a single gush, even if this gush can again bring forth many different gushes, thus in the end rather increasing the overall richness of the star signs than reducing it.

## The Water signs – Pisces

If I understood Pisces. But still a little bit of something.

One of the first computer programs written under the title *Artificial Intelligence* was called ELIZA and it was as a very simple program which just mirrored its human counterpart. If someone told it (typed into a keyboard) something about his or her mother, ELIZA asked then to tell it more about one's mother or more generally one's family. ELIZA simply deduced a question from what was said, and this was often perceived as very compassionate on the other side.

But, what does this have to do with the elements? Well, at first it is a purely abstract airy mirroring of received sentences. The imagination (Fire) was here rather on the other side, who imagined some things and afterwards maybe wrote even more interesting things than might have been the case without a question back. Thus ELIZA created something related to Fire without having to create much of an imaginary power of its own.

Maybe that is generally the case; the manipulation that Scorpio is blamed for, in order to get others to do something for it; maybe this ends with Pisces with bringing others to imagining a lot about Pisces; hence by creating a secret around themselves, Pisces bring others to imagining lots of things, of which Pisces, in turn, live within their souls?

Interesting; when I started to write this section about Pisces, I did not know this, yet, the elementary model has now even proven itself in a way that it "ran" ahead of me and created something, which I myself was not expecting, and thus also proves that the model is very rich, despite its simple structure.

So, once more, maybe put somewhat differently: Pisces like to create a secret around themselves because they like to sunbathe in all the imaginations (Fire) of the others; they create in this way, quite abstractly like ELIZA (Air), the fourth element Fire, which they would otherwise lack, like all Water signs.

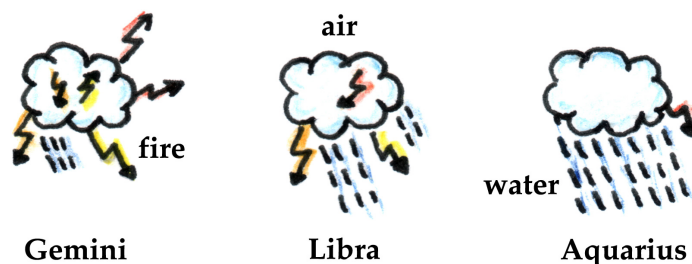
And with Cancer it is probably similar to Aries, inside Cancer there is probably already quite a lot of Fire, which maybe explains all those impulsive and often also contradictory currents even better.

## The Air signs

For the Air signs (and afterwards also for the Earth signs), the transformation is shaped a bit differently.

Here, the transformation starts with Fire and ends with Water. In youth, there is sort of a lot of hot wildness (Fire), which, through thinking and learning, ends up in old age as a pleasant ripple (Water).

A good image is a thunderstorm or a cloud. A thunderstorm at first begins with lots of thunder and lightning, which can be heard from far away, and some rain, then follows often an intensive phase with lots of rain and lots of thunder and lightning, until the thunderstorm usually ends with almost only rain.



A bit more abstractly formulated, the focus of the Air signs is at first on something visual (Fire), on looking at the world from all possible angles, from which inside, by comparing and abstracting, a model of the world emerges, like, for example, the 6 faces of a die that are fused in the head to an object called “die”. Hence from 6 or more images (Fire) of a cube seen from different angles, emerges by thinking (Air) an abstract model of a cube with properties like 6 faces, 8 corners, several symmetry axes and other abstract properties.

The same happens in principle also with all other visual phenomena (Fire) of the world, even those becomes in principle—somewhat sloppily formulated—in the head a “cube” with thousands and thousands of faces.

And the Air signs then often fall in love with these abstract symmetries, lead by the middle Air sign, Libra, which is ruled by Venus, the goddess of love and beauty. Thus emerges love, hence the element Water, from reason (Air).

And something else, also something abstract, emerges at the same time: *transparency*. The 6 or more views of a cube seen from the outside are *intransparent*, you only see one image, then again another, but never the connections. But with a model of the cube in the head, it becomes sort of transparent, like the element Water; it becomes possible to perceive the cube’s structure.

I hope this was not too much abstract stuff at once, even if it concerns Air signs here, which are often exactly at home there.

### The Air signs – Gemini

The flames of a fire are quite unpredictable, sometimes they snake here, then they meander there. In the same way, also light and the eye of an observer (Fire) look sometimes here, then there. Gemini, as the first Air sign, have a lot of this, always ready to move, hard to predict, very interested in learning something, very curious and also flexible.

But why then also the theme of dark and bright, of good and evil twin, like in Liz Greene’s *The Astrology of Fate*; can that also be seen somehow in the elementary model?

In order to fuse things, you must be able to unify apparent contradictions like bright/dark, good/evil or true/false in an abstract way. Quite generally, logic is based on true/false or in a computer on zero/one.

For Gemini, as the first Air sign, these opposites often remain just side-by-side; in one moment, like when looking at one face of a coin or the other, only

one side is seen and in the next moment maybe the other.

For Libra, opposites are already quite well balanced and finally for Aquarius, they are often already mostly unified, which, however, often is not possible without suppressing certain things, but more about that later when writing about Aquarius.

### **The Air signs – Libra**

In *The Astrology of Fate*, Liz Greene associates the verdict of Paris with Libra, where three goddesses, Hera, Athene and Aphrodite (Venus), ask a human, Paris, to judge who of them is the most beautiful goddess. And Paris in the end chooses love resp. beauty, Aphrodite's offer, to get Helena, the most beautiful woman of the world, as his wife, which then also causes the Trojan War.

This shows, of course, again love, the element Water, which grows from abstract considerations of the world, mirrored in Paris' mind as well as in the fact, that the goddesses consider his judgement as a human being so important. And, yet, Paris fails first at reality (Earth), the element missing in the transformation of the Air signs, which did not want to adapt to his abstract ideals (Air).

And, yet, the realization (Earth) of an Utopia, an idea for the future, is in the end what Air signs desire and want to implement, at least the two later Air signs, Libra and Aquarius.

The fourth task of Psyche in Apuleius' story was the most complex one: Get some of the beauty ointment from the underworld goddess Proserpina down in Hades. Psyche only succeeds at this by not showing any compassion with individuals she meets in the underworld. For example, she is not allowed to give a beggar a piece of bread, because she needs both pieces, in order to divert the dog Cerberus both on the way down and up.

This shows probably that Libra's love to human beings is already very abstract, it is less concerned with individual fates than with the whole, with realizing (Earth) a plan.

But how exactly is the fourth task of Psyche connected with the elements? Well, for the plan at first a precise knowledge of the world was necessary, including circumstances in the underworld, hence the element Fire, also coming from Gemini, which are ruled by Hermes/Mercury, the messenger of the gods, who also comes to the underworld when carrying messages and who saw and remembered everything then. And then it required a mental effort in order to plan ahead how much of what would be needed and what one was allowed to do and what not, hence the element Air. And, almost last, but not least, a universal love in order to be able to withstand individual temptations (Water); Water signs can be very cold if it has to be, Water is a cold element. Finally, the prize, an ointment, was in the end something material (Earth), and also connected to Venus, because it was an ointment for beauty.

### **The Air signs – Aquarius**

In Aquarius, the third Air sign, opposites are already quite a bit fused together, which is actually not possible from a purely logical point of view, except if certain inconsistencies are suppressed into the unconscious, just as Uranus, the ruler of Aquarius, did in mythology with some titans he did not like, by banning them to the Tartaros.

A tiny example how logic always contains contradictions, at least as soon as you break up the separation of subject and object: The sentence “this sentence has 5 words” and the sentence “this sentence has not 5 words” are both true and, yet, are the logical opposites of each other. So, if the first sentence is true, normally its opposite would have to be false, but here it is not, hence there is a logical paradox.

On the other hand, it is exactly this consequence of unification, despite a certain suppression, which only makes some kinds of progress possible; some things should be realized in the end, if the advantages clearly outweigh. Also there is a clear transition from learning to teaching from Gemini via Libra to Aquarius, to sharing what has been learnt, which usually makes sense.

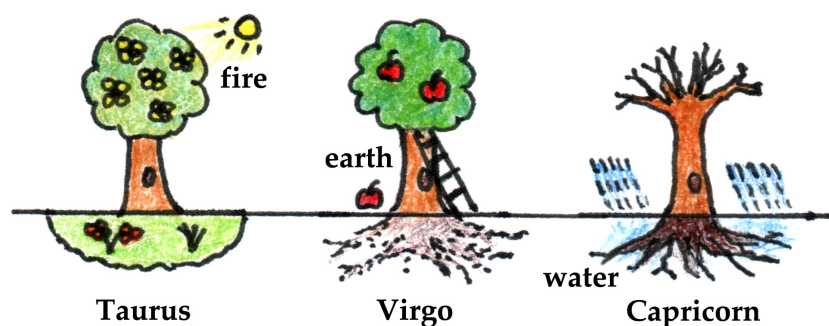
In *The Astrology of Fate*, Liz Greene also mentions Prometheus in the context of Aquarius. Now, Prometheus means roughly “forethought” and his brother Epimetheus “afterthought”, hence Prometheus thinks first and acts afterwards, Epimetheus does the opposite. That mirrors the dilemma of Air signs, because they usually think first, which often keeps them from realizing something, because there are always arguments that speak against.

But in the myth it is exactly Epimetheus who, via Pandora who he took as his wife, gets things rolling. There Pandora as lover (Water) probably played the mediating role, which lead from Air via Water to Earth, hence to realization.

The only thing which remained in Pandora’s box after it had been opened was hope, as is generally known. Where exactly I would put that now, I won’t tell here; I don’t have to sort in everything, a little bit of hope has to remain there...

## The Earth signs

For the Earth signs, the transition is also from Fire to Water, this time via Earth, and the missing element is, conversely, Air.



The simplest image here is likely a tree.

It needs two things to grow: Light (Fire) and water, plus nutrients from earth, diluted in water. (Note that this is not complete, although I am not sure if people knew anything about it in antiquity, because a tree also takes in carbon dioxide via its leaves, hence a tree would also require the element Air to live, but I will ignore this in the following.)

The first task of Psyche in Apuleius’ story was to sort out a heap of different seeds before the evening, which Venus had just mixed together. At first Psyche despaired at the task, as she always did, but then ants came to her help and carried the seeds one-by-one to separate heaps.

The result of that work was order (Air), an abstract structure, which emerged from the transformation, the missing element in the transformation of the Earth signs. A former school colleague, who is a Capricorn, once told me of a theory he had thought up, according to which consciousness (hence roughly 'Air') would simply be the result of structure (order), that, for example, if you moved chairs around, that could already create consciousness. I am not sure if that is true, also in light of quantum mechanics, but it would definitely fit with Earth signs and maybe it is really so.

### **The Earth signs – Taurus**

As the first Earth sign, Fire is still more important than Water to Taurus, and also the distance to order is still far ahead, resp. again rather unconsciously behind him. But first it is more about the beauty of things at hand, like a tree or generally nature in spring, when everything blossoms and grows and one can enjoy it and often also should just do so.

King Minos got a holy bull from Poseidon, the god of the sea, which allowed him to prevail against his brothers for the throne of Crete, but later, when he had become king, he betrayed the god by sacrificing another bull instead of the holy bull. Poseidon took revenge by arousing sexual lust for a bull in Minos' wife Pasiphaë. Daedalus built her a wooden cow in which she could hide and so she became the mother of Minotaurus, the monster with a bull's head and a human body, which hid in the labyrinth and devoured human sacrifices.

For one, Minos failed because he wanted to use outer appearances (light, Fire) to trick the god of the sea (Water), for the other, it was simply the animal in the bull (Taurus), the sexual lust, which can be connected both to Fire and Water, resp. the impulse to it rather to Fire; the consequence, children, rather to Water, because the latter is more fated. The Minotaurus came somehow out the wrong way round, he did not create order (Air) but remained in the labyrinth, trapped in disorder, and especially his head, which would foremost stand for reason (Air) had remained the one of an animal.

Similar to Heracles in the fight with Hydra, Hera, crab and swamps, it is here also again the whole myth that mirrors Taurus, hence here also Theseus, the hero who defeated the Minotaurus, is part of it. And definitely also Ariadne, who taught Theseus the trick with the thread and gave it to him, so that Theseus could bring a bit of order (Air) into the labyrinth and she probably did this also out of love (Water).

Earth signs often take liberties with the truth, Taurus also out of a need for harmony, in order not to make others jealous of its properties (Earth).

### **The Earth signs – Virgo**

Towards the end of summer, where Virgo, the second Earth sign, is, many fruits and other things are ripe to pick. As with Psyche in her task, then often things are just "thrown" at your feet to pick or collect and then sort in; this can hardly be controlled; if something is ripe, it must simply be harvested then, not earlier or later.

This is fate then, the element Water, where Virgo more and more develops to. But in between there are also always phases where there is nothing to do, where you can still laze around and enjoy the beauty of things (Fire). Also there

are some fruits of nature which then cannot be preserved immediately, those are better given to others or you invite guests and enjoy things together.

But again something from mythology, about Persephone. As a young woman she walked around and when she looked curiously down to certain flowers, the earth opened up, the underworld god Hades came up with his chariot and abducted her to the underworld, where he made her his wife and the queen of the underworld, Proserpina.

The virgin, simply because she was curious as part of the transformation of elements Fire-Earth-Water-Air, wanted more than just see the beautiful appearance of nature, but as she looked down, hence away from the sun (Fire) in the sky, down to earth (where also water flows to), in order to understand how and why the flowers grow and what kind of flowers there are, she became fatedly trapped, fell in love, similar to the Air signs, with something that at first also appeared terrible to her, like maybe sexuality to a virgin, with all the fascination that also lies within.

### The Earth signs – Capricorn

And in the end, as underworld queen Proserpina, she did of course also structure many things. This mirrors already a tree in winter, the third Earth sign, Capricorn, a tree that stands with meager, empty branches, only still supplied via its roots (hidden from view) with water and nutrients, hence containing a lot more Water than Fire. Also generally a lot in nature disappears under the ground in winter, also animals that hibernate or do something similar.

The abduction of Persephone can also be seen that way, because in the myth she was finally allowed to spend a third or half of the year again on the surface, also in accord with the model, where Virgo contains Fire and Water still in similar amounts, even though the path clearly leads to more Water and towards Air.

The roots and meager branches of a tree in winter mirror Capricorn; there order comes without any ornamentation before beauty. And, yet, this is again also a source of lust for Capricorn, out of reversal of sexual drive, *Triebumkehr*, as Freud called it, thus drawing sexual lust out of not doing things one would like to do, especially for the oldest Earth sign also out of restrictions that emerge due to old age, when the own body at some point becomes some kind of cage, which keeps trapped.

In *The Astrology of Fate*, Liz Greene describes a dream of a Capricorn, where he was prisoner with his wife in a house, but with open doors and windows, and they still stayed there. This reminds me again very much of the idea of moving chairs around, the house with open doors and windows symbolizes again an order, created from Earth, but very abstract, hence Air.

I will leave it at that with examples for the star signs. As announced earlier, this was now of course not complete at all, the whole topic is simply too rich; I could write a few sentences to almost every sentence of Liz Greene and many other authors about the star signs. And I am sure, about all I said above, many readers will have a slightly or strongly different opinion, and even myself in a few days; I only hope that the other opinions would often still rather confirm than refute my elementary model as the inner *skeleton* of the star signs?

In any case, I hope that I could convey my idea simply and evidently enough, so that now many readers can apply it when desired or needed, to themselves,

lovers and friends, mundane themes, etc.

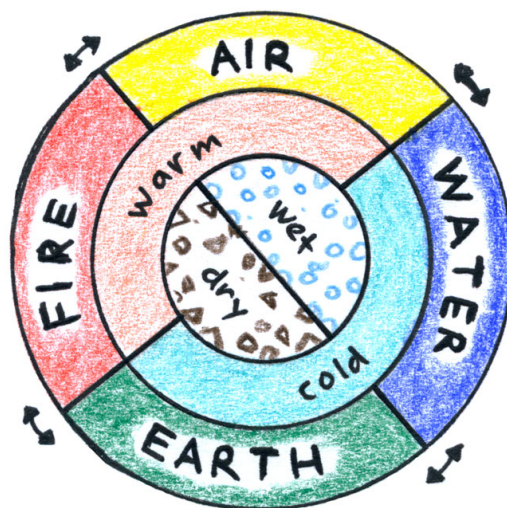
It would be a pity if this idea was lost to the world again.

## Review and structures in the model

First a bit about the overall structure of the model in review.

For Fire and Water signs, the transformation started with Earth and ended with Air, for Air and Earth signs, it began with Fire and ended with Water. Hence, the start, Earth/Fire, was always with a dry element, the end, Air/Water, always with a wet element, according to Aristotle. This would fit a general development in life, where in youth a lot would still be appear as given and clear, as fixed, hard, immutable, but with growing age it would turn out that many things are more flexible, can be bent, flow.

The circle of transformation of the elements in the model was always the same one; Earth, for example, always only transformed to Fire or Water, never directly to Air. This also fits with the philosophical view of Aristotle, because he saw the circle such that in a transformation between elements rather just one of the properties would change at a time, so Earth, which is dry and cold, would transform to wet and cold, to Water, or to dry and warm, to Fire, but only more slowly directly to wet and warm, to Air, and the same way with the other three elements.



Thus my elementary model of the transformations of the star signs is strongly rooted in well-known philosophical traditions. At the moment there are, however, no indications known to me that my *model* of the star signs was ever conscious to people in the past, which would, for one, be astonishing, for the other it could in the end give astrologers a stronger stand against science. Accusing of charlatanry or illusion would finally hardly be justifiable any more.

By the way, I often wrote "my model" here, which it naturally was, coming from its discovery, but it can only grow if it belongs to all, and if many think and feel into it, imagine things about it and realize them, only then can it maybe approach something like a balanced view of all attributes of the star signs with time.



## Appendix – A more formal approach

I would like to append something more abstract, for completeness, even though this might get too abstract for many readers.

On my web site I postulate the elements more abstractly as composed of in/out and rest/move. Earth rests outside, Fire moves outside, Air rests inside, Water moves inside. Thus the transition for all four elements in the zodiac is always from the outside, from Earth or Fire, to the inside, to Air or Water.

For example, Teiresias, who Liz Greene, in *The Astrology of Fate*, associates with Libra, was struck with blindness by Hera, out of anger about his statement, regarding who of men or women have more fun during sex. But Zeus gave him in exchange the gift of “inner vision”. This means, Libra changes its perspective from looking from outside, where the light, the Fire, is, towards looking from inside (Air and Water), where it could then find more abstract insights (Air), also about love and sex (Water), which in the end could again change a state outside (Earth) for good.

I hope this was now at least as comprehensible that it has become visible that maybe one day this could be applied mathematically in a formal way, partially beyond human interpretation, but at the moment this is still very much Zukunftsmusik (something worthwhile to realize, but far away, yet) . . .

## Sources

I often mentioned *The Astrology of Fate* by Liz Greene, Weiser 1984, as well as, also by her, *Star Signs for Lovers*, Stein and Day 1980, later retitled to *Astrology for Lovers*. After that she unfortunately hardly ever wrote anything about the star signs again, except indirectly via planets, which, in my view, does not capture all of the richness of the star signs, especially not all of the richness that lies in the transformations of the star signs and their relations.

I recommend to read Apuleius' *The Golden Ass* in the translation by Robert Graves, or in the latin original (which I unfortunately cannot read).

And, of course, just pick out something on your own, which appears to be typical for a star sign, from your favorite books and experiences, and then mirror it in the elementary model of the transformation of the star signs. . .

I wish you a lot of fun doing that and it would make me very, very happy if this thing would simply evolve beautifully on its own !

# exactphilosophy.net



avantgarde

## How astrology might really work ?

Nowadays scientists and astrologers live in almost completely separated worlds. I am a physicist and versed in both. From where I am standing, the following would seem to be the most plausible, as I will expose step-by-step afterwards:

- All people, even those who consciously do not believe in astrology, would be noticeably influenced in their behavior by astrology. Nowadays, it should also be possible to experimentally confirm this.
- The effect of astrology, at least the way it is used today, would in an immediate sense have practically nothing to do with the planets and stars in the sky. Astrology would rather be a collective effect, unconsciously created by practically all people on earth.
- This would imminently be difficult to conceive for many astrologers and scientists, since each party would in the end have to give up a basic assumption in order to return to a jointly accepted world view. Conversely, it would, of course, also be a chance.
- On the path to the above view of astrology, I can also make other concepts a bit more amenable to science again: Love, religion and deities, telepathy, world soul, collective unconscious, etc. In a way, the path is even more significant than the goal in this text.
- In the end, fortunately a lot remains fundamentally open, also whether there might maybe still be direct correlations between "heaven and earth", as basically presumed in astrology.

I will first sketch how the human brain mirrors the world inside itself, resp. in the network of its neurons. Building on that, I will describe what happens when two people love each other, and then expand this to more people, and many different concepts which have emerged over millennia, until I get to astrology. Finally, I will briefly explore further possibilities a bit more freely.

## Mirrors

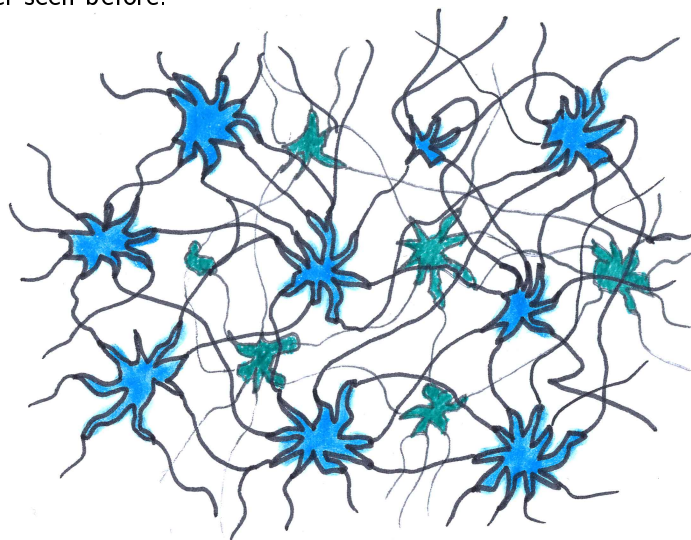
In the head of every human being there is a copy of the world, or at least of part of the world. It contains fellow humans, other living beings and many things, plus how they behave, also in interaction with oneself. Everyone can imagine, say, an acquaintance inside, even if that person is currently not in view, and often also how that person would behave in certain situations.

This mirroring of the world to the inside, into the human brain, is what essentially allows people (and animals) to live, to deal with the world, without e.g. quickly falling down somewhere.



A key point regarding this mirroring is now that it is often essentially only mirroring, but not consciously understanding how that which is mirrored exactly ticks—let me explain this sentence more thoroughly in the following.

In the brain, billions of nerve cells (neurons) are connected to each other. Today, such neural networks can be replicated also on computers, to a certain degree. For example, such a virtual neural network can be “fed” with millions of digital photos and drawings of the digits from 0 to 9. That way you can train the network, until becomes able to often correctly name the digit on an image it had never seen before.



Does that now mean that the network has understood what it is doing and how it is doing it? Or that it would even be able to explain that? This seems rather unlikely to be the case, it is probably rather as colloquially with riding a bicycle. You can learn it, but afterwards you do not really know what you do.

A concrete example: Ride quickly on a bicycle and then—very carefully and gently (!)—pull a little bit on the left side on the handlebar, but really pull only *horizontally*. This is what one would naively think what one does when one wants to take a left turn. But this is not what happens experimentally, instead rather a force results that wants to tilt the bicycle to the right (!)—hence please take caution if you try!

What you have to do instead to take a left turn, is to also press somewhat onto left side of the handlebar *vertically from the top*, which has physically to do with the fact that the rolling wheels are also a spinning top. But what is

essential in this example, is that a trained neural network does not imply that the laws of the outer world are somehow analytically accessibly stored in the head. In the head there is thus rather an often just as incomprehensible *copy* of the world, not an analytical model of it.

More psychologically speaking, unconscious content in the brain would often not be present in analytically resolved form. A trauma would have rather simply “burnt” itself into the structure of the brain than that the brain would have understood its structure. In this sense, it is probably often not correct to speak about bringing up unconscious content into consciousness. I would rather be so that hypotheses about the inner structure would lead to an inner reaction whenever they mirror the inner structure well. That would thus not be much different from how a scientist postulates hypotheses about the outer world and then compares them experimentally with it.

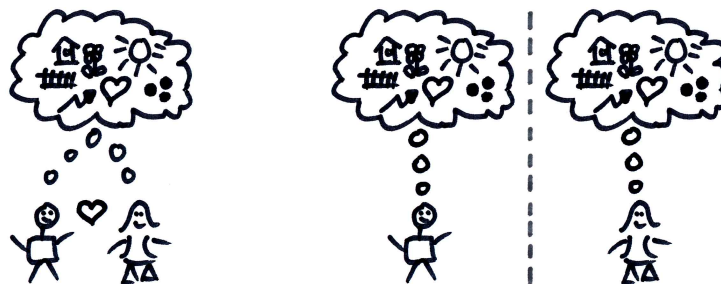
I hope this was now not too complicated to understand. Brief, the brain often rather mirrors the world, creates a copy, than it really understands it. That way also structures get into the brain which the person cannot consciously understand. This could, by the way, even go so far that laws of nature of which no scientist is yet aware would be mirrored inside, too.

But isn't one person alone and abstractly “the world” rather boring? Let's look at two lovers instead, and what maybe goes on in their heads.

## Love

Is love a real connection between two people?

Of course, it often appears to be so, for example, when the loved one calls you exactly when you think about him or her. Only, scientifically no connection is possible when, for example, the two lovers work at different places in the city during the day, and they do not use technical devices (e.g. cell phones) in order to communicate with each other.



It could of course be that today's science is wrong in that respect, resp. that such connections really exist but could not be confirmed, yet. But I will totally exclude this for the moment, since how brains work alone can already explain a lot. But I will come back to such possibilities towards the end of this text.

In any case, the two lovers of the example above will usually still feel clearly in love and connected when physically separated during the day. Is their love thus only purely an illusion, which only exists inside the respective head of each lover? Would love maybe even only be an individual illusion, in each of them separately, when they are physically together?

Well, when you love somebody, you usually like to fill your brain with any available impressions from that person. That way inside a mirror image of the person emerges, which probably even also encompasses a lot which oneself does

not consciously understand, and also the loved person not necessarily consciously knows or understands, but which will be stored in the structures in the brain in a rather unconsciously mirrored way. That way one could thus, for example, possibly sometimes also instinctively predict in total isolation when the loved one will call.

In network technology there is the notion of a “store and forward” network, a network in which information cannot flow all the time, but only at certain times, and is stored locally in between, just like when the two lovers meet again in the evening after work and talk to each other, and so on. But it remains a network, as long as the two keep exchanging information again and again.

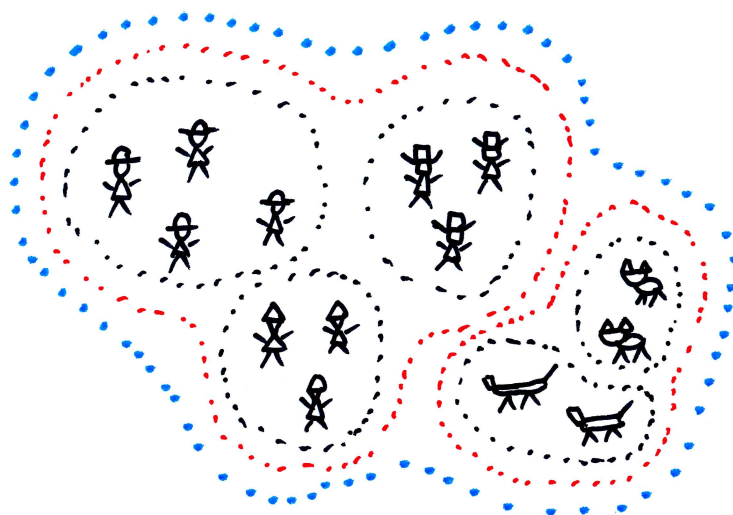
But so far this does maybe not fully mirror what happens with lovers, yet—or also in families, and less intensively with friends and acquaintances. In principle, the two brains of the two lovers connect and form a single brain. Hence almost certainly also superordinate structures emerge, which overlap between the physical vessels in the two heads, thus forming a larger neural network than could exist in a single brain.

Such a larger compound of nerve cells could in principle be able to develop independent wishes, dreams, thoughts, etc., hence a relationship could go beyond what the two lovers would be able to fully capture individually. This mirrors maybe already often how it is in a relation: often beautiful, but analytically often not fully seizable. In a way, you can only decide whether you want to stay in a relation or not, but not fundamentally change its nature.

This has now, of course, been quite speculative in detail. The brains of the lovers would still be comparably more separated from each other than the nerve cells in the individual brains from each other. And yet, as a “store and forward” network, and by storing most shared information in parallel on both sides, the above possibility still seems, to a certain degree, most plausible to me.

If two lovers were separated a long time from each other, many things could develop separately into different directions, but not necessarily, if the two really hang on to it. Hence it would be difficult in practice to distinguish experimentally whether the two are really permanently connected or not, since both possibilities would manifest almost identically.

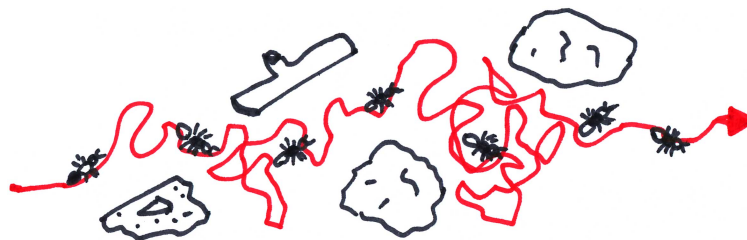
### Collective beings



If you now extrapolate such connections created from mutual mirroring, like between two lovers, to more people, like family, acquaintances, village, city, region, country, even the whole earth, including also many animals, different “collective brains” would emerge at nested scales. What would hold these compounds of brains together would be, depending on how you look at it, the power of love or mutual mirroring of each other, just like two lovers. There would thus be a collective brain for each family, then, building on that, one per community, and so on, up to country and earth, while, of course, these entities would overlap in many and diverse ways in practice.

The idea is now again that such collective brains would a priori be quite able to have independent thoughts and feelings, hence could feel joy, fear and anger, could have plans, dreams and a will, etc.—simply everything that also a single human being is able to think and feel. But it could also go beyond that, because more connected nerve cells with more stored information would potentially be, just like in a relation of two lovers, a “superbrain”, which would be able to have thoughts which a single human could never grasp, just like a single nerve cell in the human brain would hardly ever be able to really grasp the thoughts which it helps to process in the human brain.

This is maybe best conveyed as follows. Ants often form trails, which connect sources of food with their nest. Only, the individual ant does not really know that there is a trail, it simply follows the chemical scents, and, if you observe it, often not in a straight line, as one might think, but instead with a lot of going left and right, and sometimes also with shortly turning back. In the small brain of the ant there appears thus to be no concept of a “trail”, but only that following the chemical scents is good and not following them is bad, resp. probably that the ant typically feels more happy when it follows the scents than not, hence that the scents makes the ant happy.



Of course it is questionable whether such a compound of brains could really be more intelligent than individual humans, since the connections between the brains could overall only be much less intensive than inside a brain between nerve cells. But in any case such a collective brain would have a different perspective, thus something similar to an “ant trail” would be more easily accessible to the collective brain than to an individual brain, if only because the “ant trail” is a collective concept.

The analogy with the ants might also mirror how a collective superbrain might be able to “guide” individual people, namely with something equivalent to a “scent trail” for the ants. More about this fundamental idea later.

In the immediate sense, the scent trail is created and refreshed by the ants themselves, i.e. the physical environment is definitely also in play with regard to collective beings. Already in a single human brain chemistry plays an important role, and information is also stored outside the body, in books, photos, films, or also in everyday objects, clothing and architecture, simply in everything that

is created and changed by human beings. That way a single thing, or one replicated into many copies, can act on many people and help to form them. Thus collective brains would also be collective living beings with a “body”.

Now to various cultural concepts that emerged over millenia and which strongly resemble ideas of a collective being.

## Religion

The idea of or the belief in higher beings, which are often immortal and invisible, hence in goddesses and gods, probably exists in humanity already since primeval times. A collective being formed by all believers would probably also live much longer than individual people, as long as believers keep having faithful offspring. Quite similarly in human brains nerve cells are replaced with new ones during life, but personality is still roughly maintained during life. And such a collective being would also not be directly visible in the world, resp. it would reflect in almost anything, which would also often fit with deities.

If previous argumentations were accurate, would there now really be gods, if in a certain way “only” created by the respective believers? The answer would essentially have to be yes. Because, if you admit that individual persons exist, even if they “only” come to be from single, interconnected neurons, then there would also have to be goddesses and gods, which would “only” come to be from individual, interconnected brains, resp. the neurons in them.

Religions can be very helpful, can help believers to experience life as deeper, more beautiful, richer, more meaningful than it is to non-believers, not dissimilar to how lovers experience love; and religions can also be quite generally useful for society and living together. Conversely, of course, also many wars and crimes have come from religious backgrounds.

Would deities maybe all in all rather be more like the ones in Greek mythology: Not always without fail, but also with human traits, plus maybe even some, which might even surreally surpass humans, in good and in bad?

## Earth soul

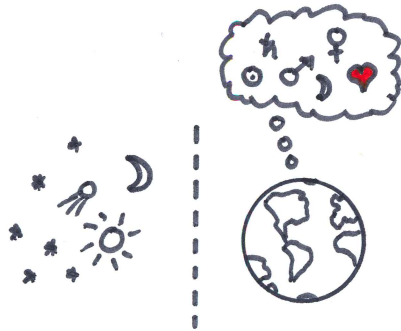
Greek philosopher Plato coined the concept of a world soul (lat. *anima mundi*, gr. *psyché tou pantós*), and there are similar concepts in different cultures. Behind that concept lies also the fundamental question of whether the cosmos is overall alive or not. According to today's science there are animals and plants, plus some other lifeforms, but a rock would be inanimate, and also by far the largest part of the cosmos.

It could, of course, still be so that more things would be alive than assumed today. As already mentioned, there are interactions between living beings and inanimate matter. Living beings consist apparently of exactly the same building materials (atoms, etc.) as inanimate matter.

But all in all, such a world soul in the larger sense would require assumptions that would go beyond the ones made so far, so let me also come back to this toward the end of this text. A world soul in the sense of a compound of all living beings on this earth would, however, most likely exist under the assumptions made so far. I will simply call it “earth soul” in the following.

For this earth soul, the self would be earth and the environment would be the “sky” resp. the cosmos around the earth, with sun, moon, planets and stars.

Would this earth soul now simply admire what it sees outside of itself, and like to mirror itself in it, like in a lover, or like in a mother or father, as creator ?



In any case, in such a rather lonely situation, without any other inhabited planet in sight, would there not be a very big wish that what happens outside in heaven would also mirror on earth, if only to feel more connected, less lonely ?

This reminds, of course, already strongly of the astrological mantra “as above so below”. But first to another concept, which is likely quite significant around astrology, to Jung’s “collective unconscious”.

### Collective unconscious

Carl Gustav Jung went beyond Sigmund Freud by postulating that unconscious processes in the psyche could also be of a collective nature, probably based on the observation that certain “archetypal” themes keep surfacing very similarly again and again even to mutual strangers, in dreams as well as more seldomly in real-life experiences.

Under the assumption of collective brains, the collective unconscious would simply be that part of collective thoughts and feelings, which is (at least most of the time) hidden from individual people, hence is not conscious to them, or even not directly stored in individual brains, but would only indirectly come to be in the collective compound, like the ant trail, which probably also does not exist in individual ants.

All people, and also many animals, dream at night in their sleep. Could it now maybe even be so that dreams would reflect collective thoughts more than individual ones ? Or could it maybe even be that a collective brain would sort of lay out its plans like a “scent trail” for dreamers, such that the affected person, after waking up, would more likely occupy him- or herself with certain themes, or would do things, which would rather fit the plans of the collective brain ? And similarly with particularly impressive real-life experiences ?

In any case, such a collective unconscious, or also generally a collective brain, would often have the character of “fate” or “destiny”, roughly in the sense in which Liz Greene cites Jung in her book “The Astrology of Fate” with “Free will is the ability to do gladly that which I must do.”.

In other words, if you behave according to the wishes of the collective brains at different scales, thus family, country, religion, beekeeper club, etc., this would be honored by the surroundings with a feeling of happiness in exchange. You would thus be fundamentally free as an individual to do whatever you want, but, as a social being, you would also respect your surroundings, and there especially *not* only what is *conscious* to individual people in your surroundings, but also respect *unconscious collective wishes*, which could very well be diametrically



opposite to immediate conscious surroundings, for example, as the “black sheep” of a family or a village.

The collective unconscious would thus also have a “fated”, guiding side, resp. collective beings would quite generally have a guiding influence on individuals and also on smaller collective beings. And, of course, collective thoughts which reflect in dreams could appear as precognition of the future or of remote events to individuals.

All in all, it is difficult to distinguish between collective “brains”, “beings”, “souls” and “unconsciousnesses” without more precise assumptions.

## Astrology

My ansatz how astrology would work is the following:

*Unconsciously all people “believe” in astrology, resp. are part of a collective brain that believes in astrology, resp. at least considers it useful and precious.*

Astrology, resp. its different forms in different cultures, would thus be a view that the earth soul, resp. its smaller collectives, would have of the world, and which they would let influence individuals. Immediately the strongest influence would thus come from the astrology of one’s own culture, from other astrologies rather less, while, of course, nowadays cultures often also mix.

Many modern people will now probably ask: Why would such an archaic belief have persisted also in all the many people who consciously think so little of astrology and often know almost nothing about it in detail? What exactly would be useful or meaningful in that?

Maybe primarily this: Thanks to astrology it would be achieved that also in small groups of people there would be different characters, with different ways of approaching the tasks that live poses every day. Since then different approaches would be tried, on average presumably a solution would be found more quickly than if people would be considerably more similar to each other. Astrology would thus have an evolutionary advantage if the sense of Darwin; this is why it would also even have survived Enlightenment almost unperturbedly, as far as it concerns the collective, unconscious part.

In addition, during the normal course of a year, for each month the assigned star sign and its attitude towards life would fit well with activities in a primarily traditional agricultural environment, which dominated e.g. in Europe during centuries. For example, towards the end of summer (Virgo) people would like to work carefully and precisely, and sort things, as in the past often useful for bringing in the harvest, and then, at the beginning of autumn (Libra), they would rather like to exchange parts of the harvest with others in trade, in order to obtain balanced stocks of goods for the winter. Until recently, this would thus have been an additional evolutionary advantage, at least compared to other collective views that would mirror nature less directly. Of course, this is only true on the northern hemisphere and with Western Astrology, not e.g. with sidereal Indian astrology.

With fate it would be more or less like quoted from Jung above: People would be fundamentally free as individuals, but, as social beings, they would be driven by often unconscious collective thoughts and wishes, so that, wanting to

feel happy and fulfilled, they would still most often find their way in life on the paths laid out by astrology, almost like the ants on their ant trail, with often as much back and forth, and sometimes even going the opposite way.

But where would the stars be in that? Well, in this picture they would in the immediate sense actually have no influence, instead “only” collective views about them, which do not always mirror the sky accurately. From a collective perspective, the earth soul, or parts of it, would very well have its views about cosmos and reflecting it, but it could also be wrong at times.

The prime example for this is planet Pluto, which had only been considered a planet during a certain time, from 1930 until 2006, when it has been, scientifically consistently, reclassified, to a so-called “dwarf planet”.

Now, in the view of astrology, Pluto would have a strong influence on human fates, and also on many collective events, including world politics, and so on. In my view that was also actually the case in the 20th century, thus these forces were effectively acting on people, and probably still continue to do so now, to a somewhat reduced degree.

Pluto was also the first planet discovered in the USA. Uranus and Neptune were still discovered in the old world, in Europe. Hence behind Pluto there is also a lot of the collective that the USA forms consciously and unconsciously, which, of course, also includes many people world-wide beyond the USA. Hence it is not astonishing that exactly scientists from the USA and other English speaking regions initially objected most to the idea that Pluto would now suddenly no longer be a planet.

But I do not want to talk about politics here; instead I just wanted to illustrate that astrology really has an effect in daily life, at large and small scale, but also certainly deviates far enough from the reality in cosmos outside of the earth that an immediate symmetry can rather be excluded.

Birds of pray can, by the way, see planet Uranus in the sky with the naked eye, and possibly also Neptune or the asteroid Ceres. Had the earth soul maybe already been conscious of these celestial bodies, only Pluto came as a surprise? But even then, for Pluto there would still have been the freedom to steer, which name the new planet gets, and thus a meaning that could still fit with some events that happened *before* its discovery?

And would the three pyramids at Giza maybe, as suspected by Robert Bauval, intentionally mirror the three stars of the Belt of Orion (Osiris), only that this had not been conscious to the ancient Egyptians, but “only” unconsciously collectively to all Egyptians, and hence the sky is not perfectly mirrored?



There are more examples, where astrology does not truly mirror the sky, like that the moon is typically drawn geocentrically on horoscope charts, hence where it would be seen from the center of earth, not from the respective point on the surface of earth. And, of course, the division of the zodiac into 12 segments of equal size, by now completely separated from constellations due

to precession, is not something that mirrors directly in the sky, and a division into 12 segments seems also rather to reflect the somewhat more than 12 lunar months in a solar year, than that it would immediately have natural causes. In China there are quite different constellations, for example, a division into 28 “mansions” on the ecliptic, where the moon would be visiting a mansion each day of a lunar month.

Astrologers within a cultural circle usually share many methods and views, but besides that often also very often use further, quite diverse methods. Think only of the many different house systems, or orbs for aspects. How could such diversity ever mirror people?

In order that a client goes to a particular astrologer, he or she would probably have to somehow feel mirrored, maybe less in the astrologer, but rather that the astrologer would resemble a desired solution? A client might come from an environment where mainly the Koch house system would be used. Should an astrological counselor now rather keep using her or his favorite house system, or in this case rather use Koch houses? Or both?

Koch houses would probably better fit the environment of the client, would thus rather mirror where the collective brains around his or her environment would want to move the client to. Conversely, the individual has likely still also a free will, in order to at least be able to switch surroundings, sort of like changing the “tribe” into a cultural environment with a different house system, where then maybe different collective brains could make a rather more desired life possible. Hence also here client and astrologer would have fundamentally much room to move, to “gladly do that which they must do”.

Certain methods and views in astrology would be quite generally valid, other methods only in surroundings where they would have supporters. This would then often be quite similar to going to a general psychologist of a certain school of thought or to a priest of a certain religion. Also there a lot would often only help if it “fits” the client.

## Summary

This has thus far been quite a conservative approach to these things, resp. it was conservative concerning the physical assumptions, thus for example without natural communication channels between brains at large distance, short, entirely from the viewpoint of the current state of natural sciences.

This resulted roughly in the following picture, which seems to be qualitatively plausible, but, of course, so far quantitatively, and whether it is correct at all, remains formally unproven: There would be collectives of two and more brains with independent thoughts, wishes, dreams, feelings, etc., and these would influence the fates of people on earth. A direct influence of planets and stars would however not immediately exist; in particular, there are clear indications that the majority of causes of astrology would be purely located in views down on earth, but would often also be helpful in living together every day.

## Tiny outlook

Even if the earth soul, as defined further above, could sometimes be completely wrong, like with Pluto as a planet, it could still have mirrored certain laws of the cosmos, even some which are not known or conscious to anybody, similar to

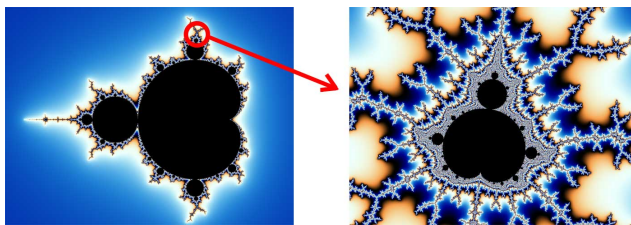
how a person who can ride a bicycle has unconsciously mirrored physical laws into her or his brain.

How it appears at the moment, the milky way is not buzzing with planets with intelligent life on them, which would emit radio signals, etc. Is thus the architecture of our own solar system so special that in it also part of the secret of life reflects? Without a relatively large moon for such a relatively small planet as earth, the earth's axis would not be stable and life would presumably never have emerged.

Quantum mechanics knows entanglement of quantum states even across great distances, as, for example, in the well-known thought experiment of Einstein, Podolski and Rosen (short EPR). Especially in the "New Age" movement there are many approaches in which the whole world would be interconnected that way, without, however, getting fully specific. Or Jung, who at the beginning of the 1950s, at that time often in close contact with physicist Wolfgang Pauli, postulated the concept of an "acausal synchronicity", was probably also substantially influenced by thoughts about such quantum effects.

This is a wide field, where I could add quite few more things. Let it suffice here, that you could then also explain oracles more easily, hence events where randomness appears to take part, as with Tarot cards or with the coins or yarrow stalks of the Chinese I Ching. Because otherwise collective brains would "only" have a possibility to influence things by focussing the people involved in the oracle after the random outcome on certain aspects of the oracle text, but there would then be now way to influence the result of the oracle itself.

There would be still another, very simple fundamental explanation for things which resemble each other in big and small sizes or at the same size at different places, namely that the same laws of nature could bring forth similar structures even without immediate connections. This concept is called self-similarity. For example in the "Mandelbrot set", a mathematical figure that results from a simple equation, you can find the same structure not only in the large whole (left image), but also many times in very similar, smaller form, if you zoom in at the border (example to the right).



A practical idea regarding how to deal scientifically with collective phenomena: Instead of trying to want to understand them analytically, maybe just try and see if they can maybe be mirrored in artificial neural networks? Hence, for example, feed a neural network with data that emerged at known times at known places, so that you can also derive astrological information. If such a neural network would then become able to derive the creation time of undated data, or at least limit times significantly, that would be a proof of astrology.

A key assumption in astrology, namely that the situation when something starts, like a human life, an organisation, a country, etc., would shape its fate, could apparently not be directly derived as a physical effect in any of the explanations proposed here. Could a key element maybe still be missing?

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Astro teasers

Some ideas around astrology that felt original and interesting enough to share, but for various reasons did not make into dedicated articles, at least not yet.

## Deep Learning and astrology

Big Internet companies have access to billions of images on the Internet (part of *Big Data*), often with user comments like “this is my car in front of my house”. What those companies then do, is feed computers with this information (this is called *Deep Learning*), creating basically an electronic copy of how brain cells in a human brain are interconnected, a so-called *neural network*. After that, new images can be presented to the neural network and it can often tell what is on them. Details are certainly hairy, but it turns out that already in 2019 the computer could often beat humans at recognizing what is on an image!

To make things more tangible, here an example of what you would typically feed a neural network for a single image:



Car / House / VW Beetle / ...

Now, suppose you knew when the photo was taken and where. Note that most electronic cameras today, including the ones in cell phones, usually provide this information for free, via GPS and a built-in or Internet clock, and save this information automatically with each image.

That way you could derive quite similar *astrological* tags from the image:



**Ascendent Taurus / Venus in Leo / Saturn in Pisces / ...**

Now you could simply first feed the neural network with images plus their astrological tags and afterwards present it with new images. If there was something to astrology, the neural network would likely be able to say something like “Ascendent Taurus” or “Venus in Leo”.

### **Funky Venus-Saturn**

Funky musicians seem to often have Venus-Saturn aspects in their birth charts.

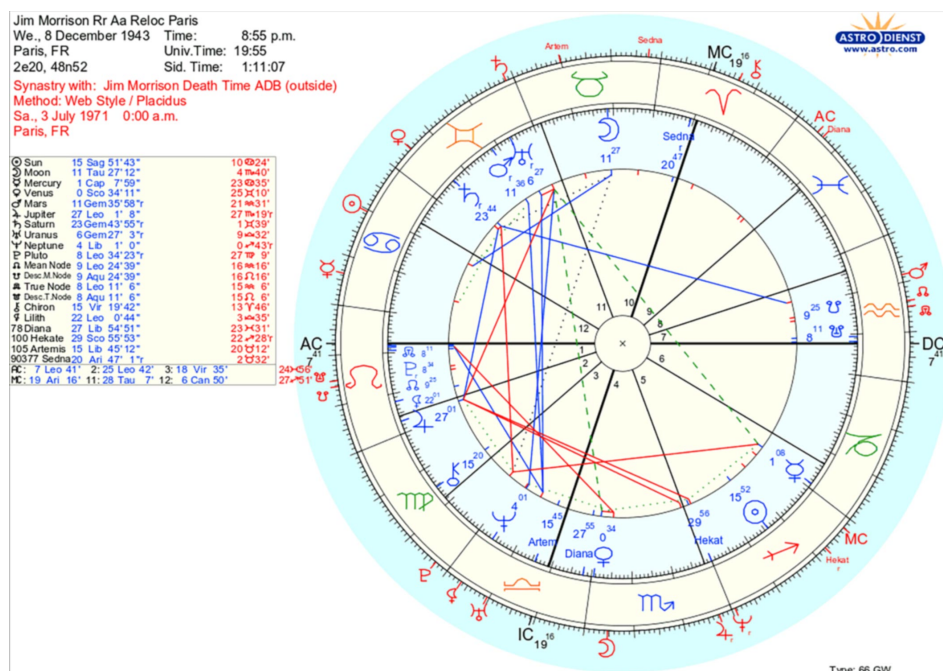
Even though such aspects are far from being rare, their prominence in well-known funky musicians is quite astounding. See the posts in Yvette’s thread “Welche Musik bringt Eure Sonne auf Trab?” at the Astrodienst (astro.com) astrology forum after February 2021 for some months for many examples.

The basic idea is that Saturn is “rhythm” and Venus “melody”, and that it would be “funky” when the two things vary in relation, are not perfectly in tune, when there are surprises, or maybe, also as Prince sings, “a little bit behind the beat, just enough to turn you on”, since Venus is also the goddess of love.

I am quite confident that by analyzing recordings for how rhythm and melody interplay, it would be possible to identify “funky” and correlate it with birth charts, i.e. this might be one of the most viable and direct ways to prove something in astrology, and it would be fun to listen to all that funky music.

The whole thing culminated for me in some recordings by The Doors, and Ray Manzarek in several interviews. All four members of The Doors have/had Venus-Saturn aspects, and there were aspects from Venus and Saturn in transit to Saturn resp. Venus at birth when Jim Morrison died in Paris in 1971.

I am aware that many people can hardly tell whether something is funky or not. But the correlation between the music down on earth (rhythm and melody) and the music of the spheres up in the sky (Venus-Saturn aspects) should be sufficient to identify the interrelation. Interestingly Venice (California)—where, according to Ray Manzarek, The Doors emerged one evening in mid-July 1965 at sunset on the beach when Jim and Ray met there by chance—was characterized by Ray to have been at the time “dark and funky”.



## Uranus and Democracy

I had always wondered how Uranus, who was rather an archaic tyrant in mythology, could be related to democracy. In a nutshell, it is because Uranus as the leader of the herd or tribe has no army or other institutions to protect him, he needs the support of many, better a clear majority, to stay relatively safe as the leader. This is actually also the key to understanding quite a few things about the crazy times we have been living in in the past 2.5 centuries since the discovery of Uranus in 1781, right between the American and French Revolutions.

In a herd there is often a leading male that gets to fertilize practically all females. Other males try to replace the leader again and again, and eventually one will succeed, once the current leader gets older. The takeover of Cronos/Saturn by castrating Uranus with sort of a "moon crescent" reflects this in mythology. It is also often considered the transition from hunters and gatherers to agriculture, the replacement of often ad hoc moving elsewhere, following the food, to a more regular structure of the year, with given times for seed and harvest.

This is obviously progress in many respects, but with respect to democracy rather not. Imagine you are a fella (farmer) in ancient Egypt and unhappy with how the pharaoh is running the country. But the pharaoh is out of reach, living in his palace far away and guarded by walls and guards. Now imagine the situation in a tribe that is constantly moving. Probably everybody is lying close together at night, maybe already around a fireplace. The leader is much less protected that way; better have many supporters around so that he would be warned, making the risk for others to attack him in his sleep too big.

That way, both a crude form of democracy and constant danger are imminent. Also, the leader can (and often has to) change path for the whole tribe much more quickly and unexpectedly than a king in well-organized society. A leader who is good at this is important. This makes things also easier for new inventions to be applied, however *only* if they can immediately be applied, i.e. if they are ripe and ready for *mainstream*, are useful for where the tribe is going.



If all of this now reminds you of the USA, where there was the first modern revolution, only 5 years before the conscious discovery of Uranus, then I can only agree. Take Trump, and some of his encouraged supporters entering the Capitol in January 2021. Or his style of making decisions, hire and fire, seemingly unpredictable. And always on the lookout for new solutions to the problems at hand. All of this is not “bad” in principle, just “Uranian”, with all advantages and disadvantages that come with it. The USA overall are much like this, including both major political parties, etc.

The god Uranus is also the whole sky/heaven; in mythology he was created by Gaia, the earth. Now, astronomically in the sky there have been more and more discoveries after Uranus. This is mirrored in astrology. Most newly discovered planets and similar objects have aquarian themes, as one would expect for a gradually emerging Age of Aquarius. And each of them was once bringing a seemingly radical change, that was supposed to make everything better.

Uranus was emphasis on consciousness and light (Enlightenment), the steam engine, and more, including, by the way, undecorated sans serif fonts. Aquarius has to do with water by its name, and Neptune/Poseidon is the god of the sea, who brought in some way the unconscious back, the unknown world below, and the fluid oil, and all the machinery that used it. Then came Pluto, actually as it turned out since then, not a planet, more the temporary spark of the leader of the herd, with the promise to bring more depth, related to Februs, the god who rules February, which contains 2/3 of Aquarius, and Februs was also an underworld god like Pluto/Hades, which then also leads to themes of sexual domination, at least of the leader of the herd over the females, and exclusion of the other males. But then came new objects, like Chiron, Eris, Sedna, Chariklo, etc., and the overall picture is shifting again, to other aquarian themes like equality between sexes and (new word) genders, and tolerance between all.

Let me stop with examples here and just say that a million things in history since then seem to quite obviously and stunningly reflect in this picture.

In astrology not only new objects have been found, but also many new methods, to the degree that in a way all of them are individually losing power. My hope is that a lot of the boundlessness of change today, that sort of explosion of new things, will somehow settle in the coming years, maybe by 2044, since Aquarius is an air sign, so reason should rule, and it is a fixed sign, so change would be constant in a way, most of the time not really radical.

I write 2044, because if you divide the great year of precession into 12 equal sections (in analogy to what happened when tropical astrology with 12 equally sized star signs was introduced about 2000 years ago) and start with Alrisha at the spring point, the star that connects horizontal mother fish and vertical son fish in the constellation Pisces like an umbilical cord (“birth”), the Age of Aquarius would hypothetically start roughly in 2044.

### **Sedna times ?**

In the view of many astrologers, Pluto has strongly influenced the 20th century, both in terms of global events and personal fates, since at least its discovery in 1930, even though it is now clear that Pluto is just one of several objects of similar size in a similar orbit.

Just like Pluto is the first discovered object beyond the orbit of Neptune, Sedna is the first discovered object from a region quite a bit further out. Since



births are so crucial in astrology, could being discovered first be a crucial factor regarding which objects get how much weight?

Would Sedna thus maybe be a major factor in current astrology? Would Sedna rule Libra, and would currently be well placed in Taurus?

In the following just a few teasers, feel free to investigate more.

The world is moving away from nuclear power; countries that want to build nuclear weapons are tamed with economic sanctions. In 2009 President Obama held a speech for a nuclear-free world in Prague, the same city in which in 2006 it was decided that Pluto is no longer scientifically classified as a planet.

In 2004, the year Sedna was discovered in photos from autumn 2003, the video "1 Night in Paris" came out, which arguably launched a new kind of celebrities who are famous even without conventional skills for stardom like, for example, singing or acting, but rather by just being desirable.

Since then cameras have essentially turned away from objects towards the persons taking them, selfies, just like Venus looking at herself in the mirror (see the glyph for planet Venus). The whole internet has become even more focussed on money, plus beauty, community, and so on.

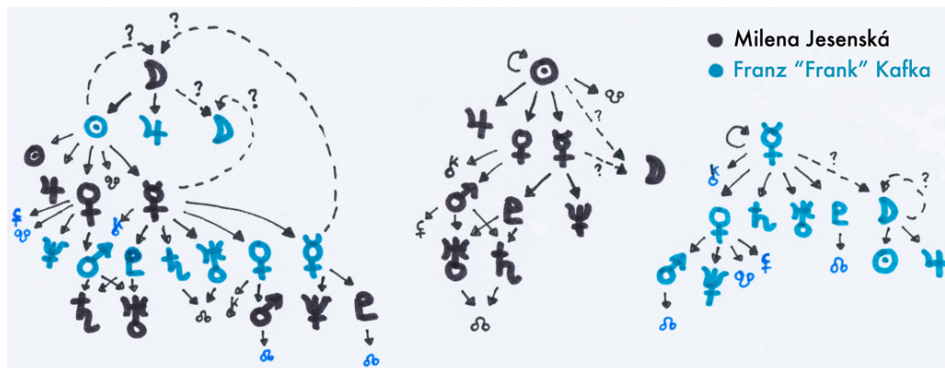
It might even be so that male state leaders and other (plutonic) men in powerful positions are no longer in absolute power, but rather at most tolerated; the "me too" revelations appear not unlikely to be part of this, too.

It may seem strange that the apparently helpless young woman in the Inuit myth would have such an effect, since she appears to be so much a victim there, but is it exactly that experience which makes her stronger than Pluto?

Remember that Natascha Kampusch managed to escape her kidnapper in Vienna after eight years of captivity just one day before the deciding vote on Pluto in Prague on 24 August 2006?

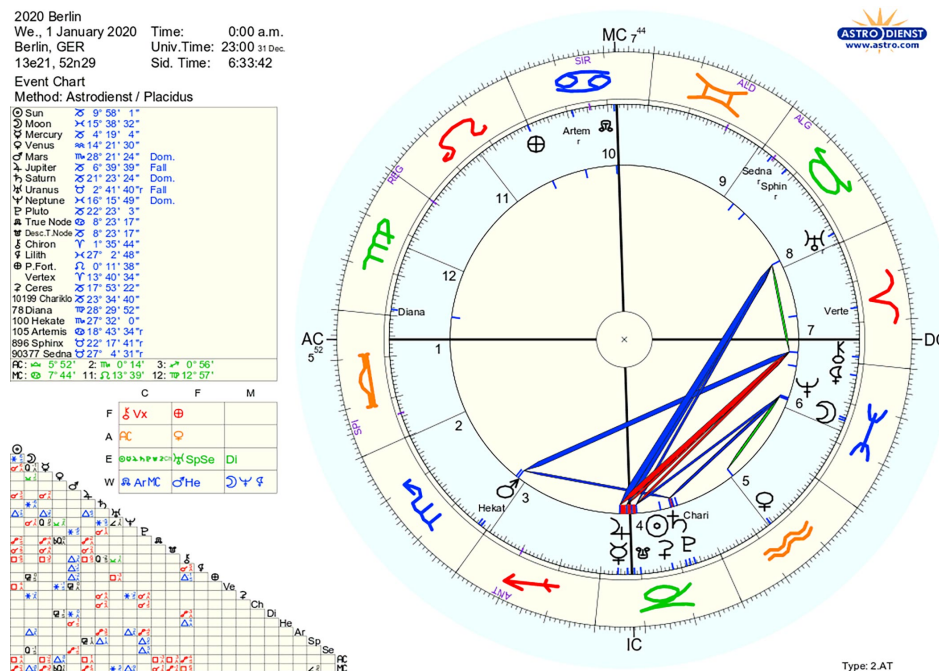
### Chains of dispositors in synastry

Chains of dispositors are often very helpful for understanding how someone ticks, especially if no birth time is known, and in synastry it is often also very helpful, if not more so. Below a small example with Franz Kafka and Milena Jesenská, with uncertain moon signs for both, since birth times are not known: Leo-Virgo for Milena (before new moon), Gemini-Cancer for him (after new moon), which via new moons further emphasize moon/Artemis themes.



## The Cronian Twenties

It is not so common to cast birth charts for calendar events, even though quite famous astrologers like Dane Rudhyar did it in the past. In my experience, such charts mirror more than you would expect. A bit more specifically, for the 2020s for each country I take 1 January 2020 at midnight for each capital, since calendars are cultural creations, regulated usually by the respective states. Berlin below, in most countries the sun is near the IC.



The nodal axis with the southern node near the IC implies rather hard times for “roots”, including old people, families and ancient traditions.

Moon/Neptune in Pisces could imply inundations in the literal sense or also in a medical sense, which would affect daily life since in the sixth house.

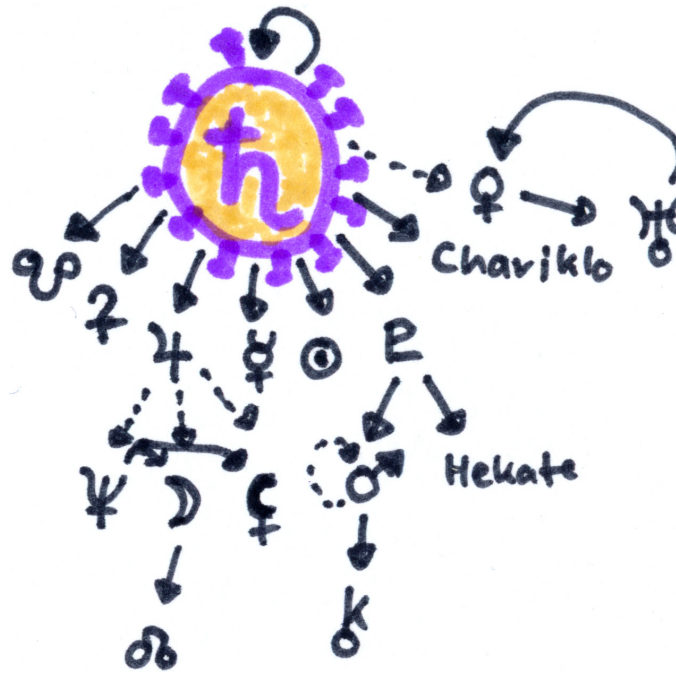
Uranus is in the eighth house (“death/sex”) in the 3rd degree of Taurus, where traditionally the moon is exalted; in the second house (“body”) Mars is conjunct asteroid 100 Hekate in Scorpio, which all can be taken as signs that death might often be nearer than usual in the 2020s.

Saturn/Pluto in Capricorn, of course; and note that Chariklo (“grace”), the largest centaur and wife of Chiron in mythology, is leading them.

Sedna conjunct Algol suggests “no fingers” to do much against death/sex/fate.

Where is hope in this? I guess in the new. The northern node at the MC and Venus in Aquarius in the fifth house of creations and children. I guess in that sense in close relations as well as in progress, also in technological ways, but such that they help.

In the chain of dispositors shown on the next page Saturn has the central role, especially if you include traditional rulerships. Corona is etymologically related to Cronos, the Greek name for the planet Saturn.



In other words, Saturn would be clearly the dominant theme of the 2020s, suggesting to maybe call the 2020s “The Cronian Twenties” or similar, in analogy to “The Roaring Twenties” for the 1920s in the 20th century.

Pan as in pandemic is usually associated with Capricorn and Saturn, hence a Corona pandemic would fit a time generally ruled by Saturn very well. Asteroid 4450 Pan was near the north node, thus in many places also at the MC. Thus “The Panning Twenties” would maybe make a more catchy title?

### The “Caesar Rodney” birth chart of the USA

This idea had originally been essentially written down in August 2017 by me, at a time where I mistakenly thought the Sibly chart would be for 4:50 PM (Neptune in Virgo at the MC) instead of for 5:10 PM (early Aries MC). Since I realized the mistake, the Sibly chart seems also to me to be generally the first one to consult. But during many investigations, including quite some at the astro.com forum around the autumn 2020 US presidential elections, I also noticed that the chart I had proposed below would match AC and MC of Jack Kerouac's birth chart quite precisely, with his moon at the AC, so maybe a chart that could mirror some subliminal currents in the US better than Sibly?

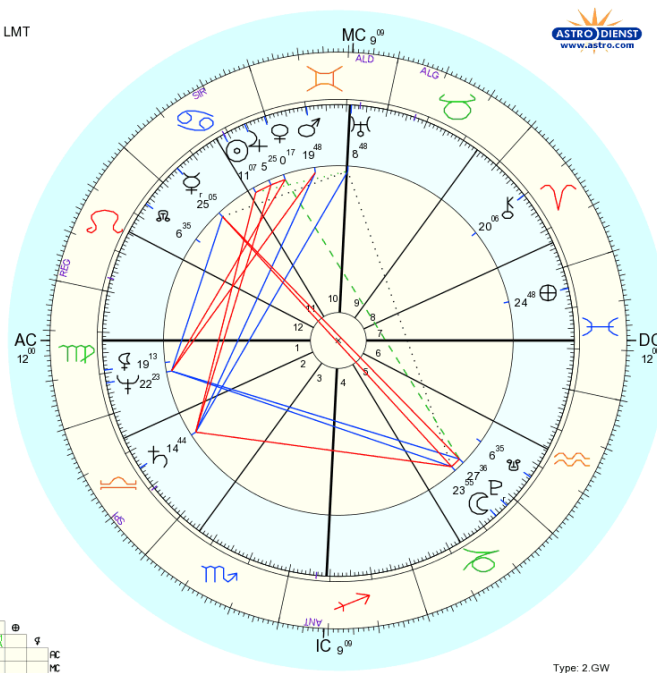
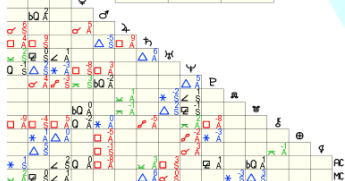
*I tentatively propose a birth around 9:45 AM on 2 July 1776 in Philadelphia PA. Historically, this could be a plausible time for when the Continental Congress passed the last part of the Lee Resolution, the part declaring independence, shortly after the arrival of Caesar Rodney who had travelled through the night from Dover to Philadelphia. The date is certain, the time speculative, but still somewhat in a plausible range according to the very few primary sources for that day. The proposed birth chart features Uranus at the MC in Gemini, Virgo rising with Neptune (and Lilith) in the first house, and the moon in Capricorn closely behind Pluto, both in the fifth house. For example, the fact that the USA tend to be “split” on many issues and into two parties or into Pepsi and Coke, and so on, could be considered to be largely due to the moon in Capricorn (“Janus head”) and the MC with Uranus in Gemini (twins).*

U.S.A. 'Caesar Rodney'  
 Tu., 2 July 1776 Time: 9:45 a.m. LMT  
 Philadelphia, PA (US) Univ. Time: 14:45:40  
 75w10, 39n57 Sid. Time: 4:29:46

Event Chart  
 Method: Web Style / Placidus  
 Sun sign: Cancer  
 Ascendant: Virgo

☉ Sun	11 Can 7°21"
☾ Moon	23 Cap 55' 7"
☿ Mercury	25 Can 5°18'7"
♀ Venus	0 Can 16°37"
♂ Mars	19 Gem 47°52"
♃ Jupiter	5 Can 24°39"
♄ Saturn	14 Lib 44°26"
♅ Uranus	8 Gem 48°11"
♆ Neptune	22 Vir 22°51"
♇ Pluto	27 Cap 36°16"
♁ True Node	6 Leo 35°19"
♊ DescT Node	6 Aqu 35°19"
♄ Chiron	20 Ari 5°35"
♁ P Fort	24 Pis 47°49"
♀ Lilith	19 Vir 12°56"
♏ 12 Vir	0° 2' 6 Lib 32' 3' 5 Sco 53'
♈ 9 Gem	9° 11' 13 Can 11' 12' 14 Leo 32'

	C	F	M
F	♂	♂	
A	♂	♂	♂ MC
E	♂	♂	♂ PC
W	♂	♂	♂



Type: 2.GW

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Sources of cognition

Ever since Galileo observed Jupiter's moons circle Jupiter with his telescope, observation of the outer world has become virtually the only source of cognition accepted as valid in science and generally in mainstream mundane perceptions and decisions. This reflects a fundamental asymmetry inherent in most parts of exact sciences and generally in mainstream approaches to the world. This may not be an ideal choice of paradigms in the longer run.

One of the paradigms is that there would be just one "outer world" or "reality", which different people would perceive from different angles at different times. That would be where measurements in science are done; that would be the source of cognition. In contrast, each individual being would have their own "inner world" or "mind" or "imagination", something generally not considered worthy as a source of cognition in science.

But why not alter that paradigm, assume that there would be **just one inner world**, into which each individual would look from their own angle?

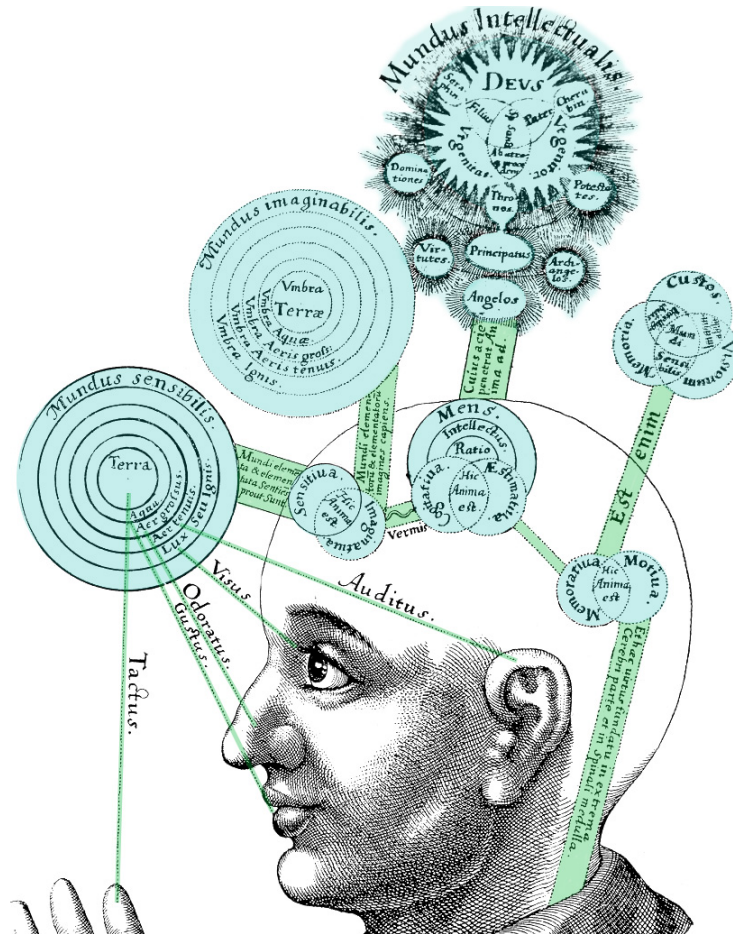
As a physicist I am well aware of the colossal advantages that exact sciences have brought humanity. I am also aware that just a single new experimental result could wholly change practically all theories as far as scientific answers to fundamental questions are concerned. But considering the current view of the universe in 2020, I am beginning to wonder if maybe the approach of current science might be too asymmetric with regards to "in" and "out" as sources of cognition. In the "outer" view, the universe appears extremely huge, full of solar systems that would superficially resemble our solar system, and, yet, no signs of life outside our own planet earth. A large part of the universe would have to be composed of postulated dark matter and dark energy and, yet, even remote stars and galaxies seem to be made of the same matter as our own environment.

What speaks for a shared inner world would be, for example, that in dreams of different people the same universal themes keep reappearing, what Jung called *archetypes*. Of course, in the current paradigm that could often be explained via exchange of information in the outer world, but this may not be a good explanation in all situations, and generally not the simplest one. Paradigms are by definition rather a choice than a necessity; they may make some parts of being easier or more complicated to describe, but it may not be possible to prove paradigm A more true than paradigm B.

Obviously also some ancient "esoteric" (= "inner") traditions like astrology would assume in a way that there is just one inner world of which each individual would be a specific part. For example, of the pair of opposites egoism/altruism a Leo would initially rather tend to egoism and the opposite sign Aquarius rather to altruism. Overall, a lot in astrology is based on a balance of opposites, which

does maybe also relate to Plato's world of ideas. Such an abstract world of ideas could be all there is to an inner world as source of cognition, or maybe not. In any case, a future science that would give the inner world just as much weight and attention as the outer world might be superior to current science in many ways, just out of an argument of symmetry.

I got this idea essentially after reading Jung's work on psychological types where he considered a person who judges rather from within than without as "rational", which seemed to me at first rather unscientific, even though he admitted that this qualification might be just due to how his own mind is made. In a way his mind was maybe still a bit "medieval":



Sources of cognition before Enlightenment:

Robert Fludd, *Utriusque cosmi maioris scilicet et minoris . . . historia*, tomus II (1619), tractatus I, sectio I, liber X, *De triplici animae in corpore visione*.

There are likely other aspects regarding sources of cognition in which science is asymmetric, like conscious versus unconscious. This reflects also in astrology: At night the sky shows lots of stars and planets; during the day, when people are typically consciously awake, the sun outshines them all, symbolically chasing away a maybe important "occult" part of the world. It may be worth noting that the moon can shine both during day and night, and even shadow the sun during a total solar eclipse. Thus to get a fuller picture, science might have to become, so speak, "more like the moon" . . .

By the way, in terms of my definition of elements on my web site, two elements would be outside, two inside, i.e. quite symmetric from the start. I wrote

this text initially in just about an hour, so, for example, some complications with a mind that is supposedly inside itself observing an inner world are not explored, immediately for the sake of carving out some asymmetries most prominently.

There is also a maybe more fundamental asymmetry in science, a focus on the largest common denominator, on general things, as first proposed by Aristotle in his metaphysics, which would be, in part, contrary to Jarry's pataphysics.

And there is likely more of that kind...



© 2002-now Alain Stalder  
admin@exactphilosophy.net

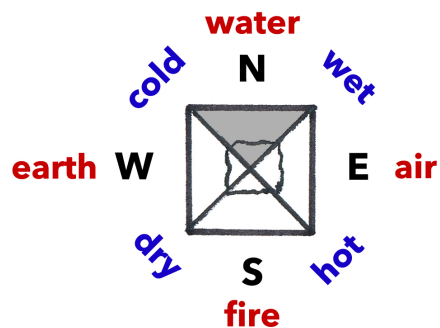
# exactphilosophy.net



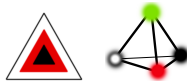
avantgarde

## The pyramids and the four elements ?

I had the idea to relate dry/wet and hot/cold to the heating and drying daily course of the sun around one of the pyramids at Giza, just like in the original image for yin-yang in China as the shady and sunny sides of a hill [1].



This would fit well with the fascination of the ancient Greeks with ancient Egypt, from the first philosopher Thales who reportedly measured the height of the pyramids in Giza by comparing the length of their shadows with his own shadow, via the tetractys of the Pythagoreans up to Aristotle's description of the four elements in terms of tangible properties dry/wet and hot/cold, with roots back to the mound of ashes around glowing charcoal, ~~white~~ around **red** around **black**, or the ripening mulberry, the signatures of the universal "white" fire/moon creatress/goddess.



[1] Richard Wilhelm in the introduction of *I Ching or Book of Changes*.





## Sources and considerations

Richard Wilhelm [1]: “In its primary meaning yin is ‘the cloudy’, ‘the overcast’ and yang means actually ‘banners waving in the sun’<sup>15</sup>, that is, something ‘shone upon’, or bright. By transference the two concepts were applied to the light and dark sides of a mountain or of a river. In the case of a mountain the southern is the bright side and the northern the dark side, while in the case of a river seen from above, it is the northern side that is bright (yang), because it reflects the light, and the southern side that is in shadow (yin). [...] 15. Cf. the noteworthy discussions of Liang Ch’i-ch’ao in the Chinese journal *The Endeavor*, July 15 and 22, 1923, also the English Essay by B. Schindler, ‘The Development of the Chinese Conceptions of Supreme Beings’, *Asia Major*, Hirth Anniversary Volume (London: Probsthain, n.d.), pp. 298-366.”

The attribution of elements to points of the compass would also mirror later attributions of seasons (winter-north-Water, etc.) to elements. Would flipping dry-warm and cold-humid at the corners also make sense? Or assigning elements to corners instead of edges or faces? However, the today usual symbols for the elements are triangles, just like the faces of a pyramid. It would even be so that the faces that always or (at least in winter) never see the sun during the day would have a triangle without intersection (Fire  $\Delta$ , Water  $\nabla$ ), and the faces that would only see the sun during part of the day would have an intersected triangle (Air  $\triangleleft$ , Earth  $\triangleright$ ).

Could it maybe even be so that Aristotle in *On Generation and Corruption* would not have been able to argue as freely as he may have wanted, since he was either restraining himself in face of contemporary conventions in society, or could he have been bound by something like a secret pythagorean oath? C. G. Jung in his book *Psychological Types* of 1921 (in the original German) refers implicitly also to older traditions which attribute the four temperaments to the classical elements (Fire-choleric, Air-sanguine, Water-phlegmatic, Earth-melancholic), but, as far as I could see, does not mention this with any word, even though he considers earlier works over several hundred pages.

Pity that knowledge that had been kept secret can exactly for that reason hardly be distinguished from pure fiction: In both cases, at much later times usually no artifacts remain from the time something was supposedly already known. The only other thing to do would be to argue indirectly via symbolism, but also that is difficult with regard to the elements, since in that case, because all is so “elementary”, there are not all that many essentially natural ways of how to attribute things to each other. And, yet, even today pyramids are such impressive buildings that one keeps wondering: Why exactly pyramids?

But how pyramids evolved from single “floor” mastabas via stepped pyramids to their final form is well researched. Especially how Sneferu had the first three pyramids without steps built and the first two attempts failed, does not suggest that a lot of symbolism was in the conscious minds of ancient Egyptians at the time, the issues at hand were much more basic.

Also, the triangular glyphs for the elements seem to be relatively recent attributions from alchemy without known roots in antiquity. In other words, the association of elements with the pyramids fits symbolically very nicely, but historically there seem to be no traces from antiquity.

exactphilosophy.net



avantgarde

## The roots of the four elements in Empedocles' poem, and similarly veiled in the Hippocratic Oath ?

The following novel insights are presented:

- (a) An interpretation of "roots" in Empedocles fragment about the four elements as literally as the root, origin or creator of an element and thus an attribution Zeus-Fire, Hera-Earth, Hades-Air and Nestis-Water, i.e. the same as by Aetius according to the majority of surviving sources.
- (b) An interpretation of the gods and goddesses in the Hippocratic Oath in its perhaps oldest surviving form similarly as also the four elements in veiled form: Apollon-Fire, Hippocrates-Air, Hygieia-Water and Panacea-Earth.

### Sources and interpretations around Empedocles to date

In *Metaphysics* (book 1, chapter 3) Aristotle mentions that Empedocles would have been the first philosopher to speak of four elements (transl. W. Ross):

*Anaximenes and Diogenes make air prior to water, and the most primary of the simple bodies, while Hippasus of Metapontum and Heraclitus of Ephesus say this of fire, and Empedocles says it of the four elements (adding a fourth—earth—to those which have been named); for these, he says, always remain and do not come to be, except that they come to be more or fewer, being aggregated into one and segregated out of one.*

Aristotle lived between 384 and 322 BCE, Empedocles roughly between 490 and 430 BCE. In a work that survived only indirectly, the philosopher Aetius, who lived in the 1st or 2nd century CE, relates Empedocles' mention of the four elements to a fragment (DK31B6) that is usually considered part of a poem by Empedocles titled *On Nature*. Here the fragment, first in the original Greek, then in the translation of William Leonard from *The Fragments of Empedocles* (1908), but with original Greek names for deities instead of the Roman equivalents he used in his translation:

τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε·  
Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἡδ' Ἀιδωνεύς  
Νῆστις θ', ἥ δακρύοις τέγγει κρούνωμα βρότειον.

*And first the fourtold root of all things hear!—  
White gleaming Zeus, life-bringing Hera, Aidoneus  
And Nestis whose tears bedew mortality.*

Aetius works only survived in several works attributed to different authors. In the majority of them, Aetius would have attributed Zeus to Fire, Hera to Earth, Aidoneus (Hades) to Air and Nestis to Water, in the minority Earth and Air would be flipped between Hera and Hades. Sources in detail from *Die Vorsokratiker*, J. Mansfeld and O. Primavesi, Reclam, 2012: (majority) Stobaios I 10,11b; p. 121,16-20 W. and Qusta ibn Luqa I 3,20; (minority) Ps.-Plutarch, *Placita* I 3,20 (Hss.) and Euseb., *Praep. ev.* XIV 14,6.

Aetius argues as follows: Zeus as boiling and [fiery] aether, live-giving Hera as Earth, Aidoneus [i.e. the invisible] as Air, which has no own light but would be shone upon by sun, moon and stars, Nestis as semen and water.

In *Ancient Philosophy, Mystery and Magic: Empedocles and Pythagorean Tradition* (1995), Peter Kingsley attributes Zeus to Air, Hera to Earth, Hades to Fire and Nestis, who he interprets as Persephone, to Water. He changes the attribution of Zeus due to an apparent change of meaning for aether between Empedocles's time as mainly Air to later on when it would rather mean Fire.

Aristotle used aether as the name of the fifth element, which exists primarily in space and goes in circles. In space you have "Air" as the void and "Fire" as the lights that move periodically around up there, namely sun, moon, planets and stars, which is likely why aether had ambivalent associations, including until at least the times of the Stoics.

Johann Leonhard Hug already suggested in 1812 in *Mythos der berühmten Völker der alten Welt vorzüglich der Griechen* that Nestis would have been a variation of the name of the ancient Egyptian goddess Nephthys and that she would thus correspond to the Greek goddess Persephone.

So far, the sources and some interpretations I know of, now to my take.

### Should "roots" in Empedocles fragment be taken literally ?

My take on Empedocles' fragment is to interpret "root" in the sense of creator, origin, as the *source* of the elements rather than as the elements themselves, and to assign gods and goddesses via their explicit or implicit attributes.

Zeus is described as "white gleaming" or "flashing" or "shining", which I would interpret as Fire, especially since Zeus is very prominently known for throwing bolts of lightning, so he creates Fire that way.

His wife Hera is described as "life-bringing" or "life-bearing", which I would interpret as pregnant and thus as creating Earth, as creating new living matter in form of a newborn child.

Aidoneus is simply a well-known variant of Aides, Hades, and has no attributes in the poem, so let me skip Hades for a second.

Nestis is a goddess about which close to nothing seems to be known, but her attributes "tears" and "dew" leave almost no choice but to associate her with Water, a goddess who creates Water, in the form of dew or tears (rain?).

Hades has no attributes, but maybe his name is the attribute? His name means "invisible" or "unseen", while in Plato's dialogue *Cratylus* Socrates proposes "knowledge of all noble things". Let me simply assume that in this case,

since there are no attributes, the name is the attribute, which would fit well with invisible Air and also with the fact that in astrology Air is related to thinking.

All in all, this would lead to exactly the same attributions as the ones of Aetius, as reported by the majority of variants in which his work survived.

Hug/Kingsley suggest that Nestis would be Persephone, so that Empedocles would have listed two divine couples: Zeus ⚔ Hera high up on Mount Olympus, Hades ⚔ Persephone deep down in the underworld.

Kingsley also suggests that Empedocles would not have been a philosopher in today's usual meaning, but would have had a background in more "magical" and especially also "medical" practices. This would also reflect in the oaths that presocratic philosophers of some schools would apparently take, which would apparently have included vows to keep some knowledge secret.

### The four elements in the Hippocratic Oath ?

In that sense let me also look at the beginning of the Hippocratic Oath, the oath still sworn by doctors in modified form today, in perhaps its oldest surviving form (as found in Oxyrhynchus Papyrus 2547, around 275 CE):

*I swear by Apollo the healer, by Asclepius, by Hygieia, by Panacea, and by all the gods and goddesses, [...]*

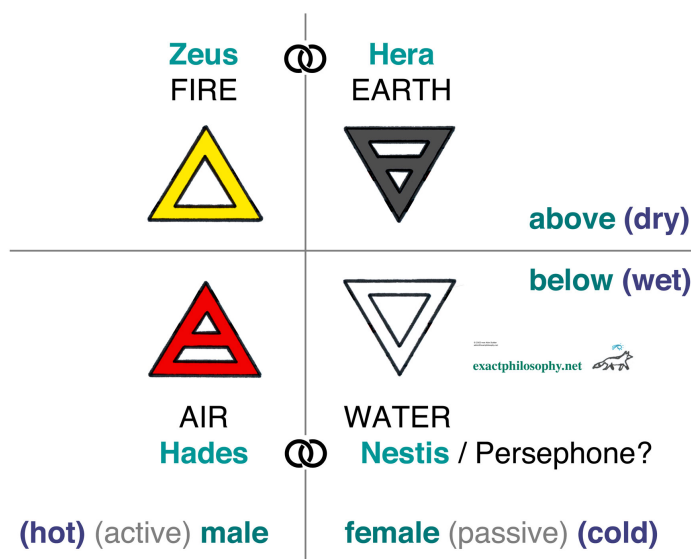
My take is that the sun god Apollon would be most strongly associated with Fire. His son Asclepius, as a wise doctor, would fit well with Air. Asclepius' daughter Hygieia would fit well with Water, as she is often shown with a snake that drinks from a bowl in her hands (and with hygiene, of course, which often involves liquids for disinfection). Panacea, another of Asclepius' five daughters, would most likely be Earth, as she used to heal with plants.

So, did doctors implicitly take an oath on the four elements, more so than on the explicitly named gods or saints ? Did Empedocles essentially do the same in an older form, maybe in both cases in order to "blend in" with society by superficially alluding to mainstream divinities at the time, while secretly only feeling bound to the four elements, or in some sense the laws of nature ? Would in both cases, as, I guess, Kingsley also suggests, secret traditions be involved, where knowledge was maybe passed on only orally from master to pupil ?

### Visualizations

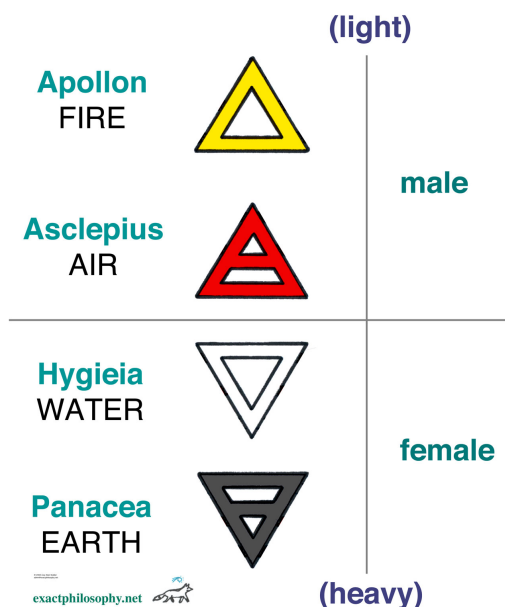
In order to maybe approach an answer, let me illustrate the proposed assignments to elements, first for Empedocles' fragment.

Most surprising is that the female goddesses would be associated exactly with the elements that are now considered female in astrology, Water and Earth, and the male gods with the ones that are now considered male, Fire and Air. This is so surprising because this attribution appears usually to be dated to roughly the 2nd century CE in astrology (Vettius Valens's *Anthologia*, and hints in earlier texts by Dorotheus of Sidon and Marcus Manilius), with precursors that attribute passive/active to the same pairs of elements going apparently back to the Stoics, but Zeno founded Stoicism only in 301 BCE, more than a century after Empedocles lived. (Or am I maybe missing something here ?)



Around 350 BCE, Aristotle categorized Water and Earth as cold, Fire and Air as hot. He also categorized Fire and Earth as dry, which would here be the couple Zeus ☯ Hera above ground, and Air and Water as wet, which would here be the couple Hades ☯ Nestis below ground (if you follow Hug/Kingsley's suggestion that Nestis would be Persephone).

Now let me take a similar look at the elements in the Hippocratic Oath:



Again, the male elements would be the male gods, the female elements the female goddesses, which is no longer surprising in the 3rd century CE.

Elements are listed in the order from light to heavy, in exactly the way Aristotle and others sorted them. That both men are listed first and that both women are daughters of Asclepius, who, in turn, is a son of Apollon, gives this list a more patriarchal touch compared to the pair of couples in Empedocles' list, even though Empedocles lists men first in each couple.

### Quick wrap-up and outlook

Were the four elements something that some people had known about in closed circles for maybe many generations before this came out publicly? Empedocles would have been very close to what became mainstream in astrology several hundred years later in my attribution to elements. Maybe even psychological associations would not be too far fetched for Empedocles' fragment, with Nestis and tears close to feelings, like Water in astrology? Even the couples would be between elements that are usually considered to go well together in astrology. The two couples Zeus ⚔ Hera and Hades ⚔ Persephone remind a bit of Isis ⚔ Osiris and Seth ⚔ Nephthys from the ancient Egyptian Heliopolis creation myth, especially since "Nephthys" reminds of "Nestis", as already mentioned further above. Quite generally, creation myths world-wide practically always involve the elements in some form.

How far do things really go back, what was just made up later? Is it certain that Empedocles' fragment is genuinely from him in this form?

### Postscript

Looking at Empedocles' poem from the point of view of the three colors ~~white~~-**red-black** of a triple moon goddess, as first proposed by Robert Graves in *The White Goddess*, in the chapter of the same name: Might Empedocles have listed first Zeus as white and bright as the white aspect of the goddess, then Hera as pregnant and life bringing as the red aspect of the goddess, and then Hades as the black aspect of the goddess? Might Nestis, on her own line in the poem, be the triple goddess herself? See the link below, as well as the section "origins" of the main content of this web site exactphilosophy.net.

- ~~White~~-**red-black** and the "**green**" goddess  
[exactphilosophy.net/white-red-black-and-the-green-goddess.pdf](http://exactphilosophy.net/white-red-black-and-the-green-goddess.pdf)

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Are dark matter and energy neutrinos ?

Neutrinos were first proposed by Pauli in 1930 to explain energy and momentum conservation in beta decay. Dark matter and energy were proposed to explain something invisible that can similarly not be explained with known matter and forces. Could they be the same thing ?

There are a gazillion of neutrinos flowing through every cubic inch in the universe each second. Since relatively recently neutrinos are also known to carry a little bit of mass. Might they carry something else in similarly tiny quantities responsible for the effects associated with dark matter and dark energy ?

This is simply Occam's razor. With neutrinos there would already be something largely invisible that permeates the universe. So why not look there first for an explanation of the effects associated with dark matter and dark energy ?

# exactphilosophy.net



avantgarde

## Paradox of love

Is love a real connection between two lovers? Any direct connection becomes physically impossible according to current science as soon as two lovers separate a few miles (and do not use technical devices to communicate). Is love thus just a mutual illusion that exists only separately in the two lovers, maybe even when they are physically together? The answer is both, in a way, as follows.

The human brain mirrors much of the outside world on the inside, in order to be able to communicate with the outside world and to predict how things will behave. This includes especially loved ones, which are mirrored much more intensively and in more detail than most other beings and things outside. Since this mirroring usually does not mean that everything is analytically understood, but is mainly just mirrored by “training the neural networks” in the brain, the mirror image of a loved one allows also to predict things about a loved one that neither person is consciously aware of, nor even that it would be stored in some analytically structured form in their two brains at all.

In network technology, there is the term of a *store-and-forward* network, a network where there are no permanent connections, but data is stored at each node and exchanged whenever the connection becomes available again. In the case of the two lovers, they would, of course, talk to each other and exchange themselves with all of their senses as soon as they meet again after having been separated, say, during the day at work. But a store-and-forward network is still a network, as long as there is repeated exchange.

Hence you could at least qualitatively explain why, say, the loved one called you on the phone just when you were thinking about him or her, etc. You would have simply mirrored each other so closely, that similar thoughts and feelings would have occurred to both of you at the same time.

But it goes even further: Connecting two brains in such a way effectively creates a larger brain, potentially a larger being, the “relationship”, with maybe its own thoughts, dreams, feelings, and so on. This is likely why relationships can never be fully understood by the two lovers, simply because they really “go over your head”, as they involve two heads, and the dynamics between them is impossible to fully grasp for a single brain.

All in all, some aspects of a relation can never be changed, you only have the possibility to stay in it or leave it, or maybe change the dynamics by adding new elements, like when you have children, which then also become part of a larger complex of brains, the family, in this case.

In conclusion, love would be a real connection, but not be permanently synchronized, unless yet unconfirmed new physics would still allow it.



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Paradox of measurement

Can measurement be scientifically investigated at all? Let me explain.

In physics, resp. in exact sciences, in general, measurements are made, and once they have been made, the results of these measurements are considered to be settled with certainty, i.e. at least in principle the measured data can be kept intact forever and practically everybody looking at the data will agree on what it is—not necessarily on what it means or implies, but on what it immediately is. Hence the terms “facts” and “reality”. Of course, that this is always the case is fundamentally an assumption, but as long as no confirmed exceptions are found, that remains *de facto* a *fact* and *reality*.

A bit more abstractly speaking, measurement turns the world into numbers, “gödelizes” it, or, if you prefer, transforms it into a sequence of bits. Scientific hypotheses usually also make use of concepts that cannot be measured directly, but in the end only hypotheses that reproduce the numbers of measured data become theories in physics, or in exact sciences, in general.

Now, since before measurement, there are by definition no measured numbers, yet, the methods of exact science cannot be applied to how the process of measurement works, simply—repeating the first part of this sentence in other words—because there are by definition no numbers that can be measured during measurement, since during measurement is by definition before measurement.

It would thus not be possible to analyze and model measurement with scientific methods, since those require by definition measurement first.

This might, by the way, explain at bit why the measurement process in quantum mechanics is so hard to understand, and why there are still so many contenders. It hints maybe also at some secrets of nature that might maybe not be so easy to access. A key assumption in science is usually that nature is “more stupid” than the experimenters, that it would stoically repeat the same answers to the same questions. Jung suggested in his article about “synchronicity” that nature might answer differently when not forced to answer with “yes” or “no”, as the case in many scientific experiments, but instead given more freedom, naming oracles like the Chinese I Ching as an alternative. Put differently, measurement appears to be a bit like the “Veil of Isis”—not so easy to lift.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Paradox of solar eclipses

During a total solar eclipse, the moon stands between earth and sun, completely shielding the sun from view on some spots on earth. In contrast, the gravitational forces of sun and moon on earth simply add up; there is no shielding by the moon. In quantum field theories, forces are mediated by virtual particles, more specifically by bosons (even spin). Virtual particles connecting sun and earth would thus not interact at all with the moon in between.

How would a virtual particle mediating the force of gravitation between sun and earth “know” that it should “not stop” at the moon in between ?

Let me explain this in more detail. First of all, there is today no quantum field theory of gravitation, but the general argument also works, for example, for electromagnetic forces, where there is a quantum field theory (quantum electrodynamics, QED) that works with fantastic precision.

A Faraday cage is a closed box of a material that conducts electricity. If you apply an electric field outside, such that charged particles outside the cage will be attracted or repelled, there will be no force inside the cage. The cage would thus appear to shield what is inside from the outside world. But this is not what immediately happens. On the surface of the cage, positive and negative charges separate such that they generate an electric field that exactly compensates the one imposed from outside, so that all adds up to zero inside the cage.

Speaking in terms of virtual particles, virtual photons in this case, there would still be virtual photons connecting the source of the electric field with any charge inside the cage, thus exerting an electric force on each such charge, but there would also always be virtual photons connecting the surface of the cage to the same charges inside, so that forces would cancel inside.

What makes this paradox, is that virtual particles interact heavily with matter, but are also able to “travel” completely undisturbed through other matter.

I wrote “travel” in double quotes because virtual particles can “travel” faster than the speed of light “behind the scenes”, which means that which way they “travel” depends on the observer, more precisely, on the relative speed of the observer relative to the setup. This is simply a consequence of special relativity; see e.g. Richard Feynman’s article “The reason for antiparticles” (1987).

Virtual particles remind of the “spooky” actions at a distance that can instantaneously (faster than the speed of light) correlate measurements in quantum mechanics, as first brought up by Einstein, Podolski and Rosen (1935). Or think of the Aharonov-Bohm effect, where there is zero electric field, but a directly unobservable non-zero electric potential, and an observable effect.

A quantum theory of gravitation would presumably feature spin 2 gravitons, implying no negative masses (“charges”), hence not even apparent shielding.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Paradox of decoherence

I combine several well-known Gedankenexperiments, namely the one by Einstein, Podolski and Rosen (EPR), plus Bell's Inequalities, and Schrödinger's Cat, as well as Wigner's Friend, into a new Gedankenexperiment, that I essentially first devised in January 2003 for a Usenet post to the sci.physics.research newsgroup. Archived here: <https://www.classe.cornell.edu/spr/2003-01/msg0047545.html>

From: Alain Stalder <astalder@exactphilosophy.net>  
Newsgroups: sci.physics.research  
Subject: Re: Some questions on decoherence and QM.  
Date: Mon, 13 Jan 2003 22:30:49 +0000 (UTC)  
Message-ID: <astalder-A850F5.13133713012003@news.bluewin.ch>

In article <3E1C9025.A2D5A6CB@uni-essen.de>,  
Urs Schreiber <Urs.Schreiber@uni-essen.de> wrote:

> Frank Hellmann wrote:

> > A measurement of the quantum system described by rho is generally still  
> > has a probability for both classically exclusive states though, so we  
> > still have a superposition of classically exclusive states.  
>  
> The last phrase must read: "a \*mixture\* of classical states".  
>  
> Using the density operator one is bound to talk about  
> statistics only. Decoherence cannot and does not explain "how"  
> a system chooses from the possible outcomes a specific one  
> when we measure it. Decoherence only explains how the "quantum  
> probability" becomes a "classical probability", very roughly  
> speaking, but it still only gives probabilities.

It is worthwhile to explain what exactly "classical" means in this context. This is maybe most easily seen if Schrödinger's Gedankenexperiment is combined with the experiment for testing Bell's Inequality:

Two entangled photons fly in opposite directions and then each pass through polarization filters. A photon detector after each filter either kills or does not kill a cat on each side, depending on whether the respective photon has passed through the polarization filter.

Decoherence tells us that each cat quickly ends up in a state with a density matrix that is practically diagonal. Or, more loosely put, the cat is "either dead or alive, but not both". Can we conclude that whether the cat is dead or alive is already determined, that an experimentator who looks inside to discover either a dead or a living cat will only note what was already determined before ?

No, because Bell's Inequality excludes any local hidden variable theories in which for both cats it would already be determined whether the cats are dead or alive. In other words, "classical" means in this context only that you cannot do interference with Schroedinger's cats, i.e. that they statistically behave like measured cats, but not that measurement has already occurred through decoherence.

Hence some of the "strangeness" of quantum mechanics remains, especially if you modify the above Gedankenexperiment to include what is typically called "Wigner's Friend". Replace each cat by an experimentator who looks at the detector, and place two other experimentators outside the respective labs.

Now, when does measurement occur ? When the inner experimentators look at the detectors, or when the outer experimentators open the doors to the respective labs and ask the guys inside about what they have measured ? At least decoherence tells us that we cannot distinguish experimentally between the two possibilities, because in both cases all experimentators behave statistically classical.

In conclusion, decoherence is a big step towards understanding measurement in quantum mechanics, but does not go all the way, at least not yet.

Alain Stalder

The more recent article "Quantum theory cannot consistently describe the use of itself" by Frauchiger and Renner (2018) shows that at least in some cases quantum mechanics as a universal theory of how the world evolves can lead to logical inconsistencies regarding measured data from the point of view of different observers. In other words, if that proves to be true, decoherence could certainly not explain measurement in quantum mechanics in general.

In a way, this would have already been clear from my Gedankenexperiment: Just singling out some quantum coherence that would decay independently on both sides, except the one that is bound to remain correlated, does not make sense. In my view, since science generally assumes that there is one "reality"—otherwise published theories and measured data would not be the same for all, i.e. the whole setup would be inconsistent—the only remaining solution might be that there really are connections at a "speed" faster than light behind the scenes, i.e. also that the future would have an influence on the past, albeit only within the limits of the strange things that quantum theory permits.

But the previous sentence is, of course, not really news in this generality. In any case, [I hope that my Gedankenexperiment might help future research in quantum theory a bit](#), if only as inspiration.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Paradox of $\pi$ ?

I wrote down the four paradoxes about love, measurement, solar eclipses and decoherence earlier today, while almost all ideas go back way longer. I have purposely left many things open in those earlier articles, in the hope to maybe spur the imagination of readers a bit more, and also because I might rather be interested in different things than pursuing them in the future.

My official take on this “fifth” paradox is that it is just wild speculation: [Long-range “telepathic” connections with polarized spin 1 symmetry, passing unperturbed through any matter, mediated maybe by selective perception of virtual photons or the like ?](#) Unofficially, “eppur si muove” ?

Such connections, especially between two lovers, would be felt most strongly if both persons would look into the direction of each other or into opposite directions, and gradually less strongly if not. Also, the feeling would be maximal if the symmetry planes of their heads would be aligned, e.g. if both were lying with their heads in the same direction or any opposite ones, and gradually weaker if not. The feeling would get weaker with more distance between the two, but apparently not decay quadratically with distance, and no matter in between, not even earth itself, would make a clear difference. The explanation might be that virtual photons, or maybe other spin 1 bosons, would mediate the felt connection, hence the symmetry of polarized light.

Adliswil, 19 October 2018  $\pi$ .

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Birth time of Caesar Rodney

For all that it appears, Caesar Rodney was born Monday, 7 October 1728 (Julian Calendar), shortly *before* midnight ("I believe just about midnight") according to the diary of his father who also acted as midwife. A birth on the *same date* shortly *after* midnight (i.e. almost 24 hours earlier) as indicated in at least one secondary source can be excluded based on diary entries for the previous and the following day. Scans and transcripts of the diary entries can be found towards the end of this document.

### Details

I am aware of two secondary sources that quote the diary of this father, Caesar Rodney Sr., for the birth time. The first one is:

*Caesar Rodney patriot  
Delaware's hero for all times and all seasons  
by William P. Frank  
Delaware American Revolution Bicentennial Commission  
1975  
<http://archives.delaware.gov/eBooks/CeasarRodneyPatriot.pdf>*

Frank quotes and interprets the father's diary as follows (page 9):

*Caesar, our hero, was born shortly before midnight, October 7, 1728, amid unusual circumstances. His father kept a diary, which indicates that the father acted as midwife.*

*The diary entry reads:*

*"October 7 — Hung some tobacco. Came in, got dinner and killed some squirrels. . . . About eleven o'clock at night, my wife awakened me for she was very bad. I got up and sent for ye midwife and women. But before any came, ye child was born and it was a SON. There was no soul with her but myself, being I believe just about midnight."*

*Caesar was born on his father's farm in East Dover Hundred, Kent County, near the Delaware River, an area that had always been known as St. Jones Neck.*

The second source is:

*A Gentleman as Well as a Whig  
Caesar Rodney and the American Revolution  
by Jane Harrington Scott  
National Society of The Colonial Dames of America in the State of Delaware  
University of Delaware Press, 2000*

Harrington Scott quotes and interprets the father's diary as follows (page 16):

*Caesar Rodney, the first child of Caesar Rodney, Sr. and Elizabeth Crawford Rodney was born shortly after midnight, on October 7, 1728. It is thought that his young parents were living in a small house owned by Elizabeth's father, not far from the Rodney farm at Byfield.*

*According to Caesar Rodney, Sr.'s diary, the young father immediately sent for a midwife "and other women," but "Before aney came ye Child wass Born and it wass a SON." As "There was no sole with her but myself—being I believe just about midnight." he "ran away for Isabelah Hughes." Apparently all was well, for his entry for the following day, October 8, tells us that he: "Past ye Day away with Eating and Drinking and at Night I got super Went to Bed fair and Good helth—My wife and Child Continues Brave and well thanks be to God."*

So two conflicting secondary sources, birth before resp. after midnight, both on 7 October 1728.

I ordered a transcript of the diary entries for October 6, 7 and 8 from the Historical Society of Pennsylvania. In addition, I got scans of two pages of the diary including for those three days. The researcher wrote:

*[Caesar Rodney Sr.'s diary] is located in the Simon Gratz autograph collection (collection #250B) in box 237, folder 17 "Rodney, Caesar Father of Signer."*

*The journal is written on loose pages, with just few lines per day.*

Here is a rough transcript (by me) of the diary entries for the three days around birth, plus at the end of the document scans of the two diary pages at slightly reduced resolution:

\_\_\_\_\_  
Sunday 106 / 6

*a. m. I went to [Daniles?] got brakt then to John  
[Harts?] staid tell ye evening then to [M<sup>r</sup> C<sup>d</sup>?] my  
wife was there then shee and I came home together  
we [sate?] sum [vituls?] and at night went to bed.  
Fair weather and good helth. ———*

*Monday 107 / 7*

*a m. I went to [M<sup>r</sup> C<sup>d</sup>?] thence to [Danils?]  
got brakt then came home went an hung  
sum tobaco came in got diner went and kilt  
sum squerrells came in got super went to bed  
fair weather good helth ———*

*About elevin oclock at night my wife awakened me  
for shee was very bad. I got up and sent for for ye mid-  
wife and women but before aney came ye child was born  
and it was a **son**. There was no sole with her but my  
self, being I believe just about midnight ———*

~~~~~

*Tuesday 108 / 8*

*a. m. My child being born and woman to take  
care of my wife I ran away for Isabelah [Hughes?]  
and left her all alone till I came back. Shee laid  
my wife to bed and drest ye child (then ye midwife came  
being Elizabeth Nedham) So we continued tell day there we  
got brakt and past ye day away with eating and drinking and at  
night I got super and went to bed fair and good health ——  
My wife and child continues brave & well thanks be to God*

For all that it appears, the diary shows that a birth on 7 October shortly after midnight, as indicated by Harrington Scott, can be excluded.

What can be doubted is whether the father wrote the last sentences for 7 October still on Monday or already on Tuesday, as he was very busy that night and birth was “I believe just about midnight”, i.e. nominally no time at all left on Monday for making notes in the diary.

The date format e.g. “107 / 7” appears to be simply a numbering of journal entries (“107”) followed by day of month (“7”). The researcher at the Historical Society of Pennsylvania was so kind to give the diary another quick look:

*This diary begins on “May the 30: 1727”, and the page is labeled (1) at the top. The entries are labeled only with the dates until p. 6, with “Saturday July 1 / 31.” [...] the previous entry was June 30, and the entries on the subsequent page continue to count up from 31 [...].*

Dates at that time were in Julian Calendar. Today's Gregorian Calendar was adopted in Britain in 1752, including in the colonies that would later become the first states of the U.S.A. This is consistent with the diary, as 1 July 1727 was a Saturday in Julian Calendar, but not in Gregorian Calendar. And 7 October 1728 was a Monday, as indicated in the diary, and October was the only month in 1728 in which the 7th was a Monday. The entry for “Tuesday 101 / 1” on the first scanned page of the diary also shows the month, “October ye [1st?]”.

Since the father did apparently not have the opportunity to look at a clock at birth and it is not certain (at least to me) how precise their clocks were and how precisely they were in sync with local mean time, I guess maybe a time window of 10-20 minutes before midnight on Monday or after midnight on Tuesday (8 October) for the actual time of birth would be realistic?

FYI: The main reason I made this research was to eventually help find out when Caesar Rodney arrived 2 July 1776 in Philadelphia just in time to cast his vote for independence (Lee Resolution), an important event for the USA.



[Historical Society of Pennsylvania

Simon Gutz autograph collection, #2508, Box 237, Folder  
17 "Rodney, Caesar Father of Signer"]

18/28 Saturday / a.m. I got dress<sup>t</sup> and stay<sup>d</sup> home all day only  
Eate dinner and at night Super and then went to bed  
fair weather. I had the head ach all day

19/29 Sunday / a.m. I stay<sup>d</sup> home all day with nothing but common  
Eating and Drinking. a. Night Super and went to bed  
Sun<sup>d</sup> shining in afternoon. But Good health.

100/30 Monday / a.m. I got dress<sup>t</sup> and went to Mr. C. then came  
home went to Daniel's came back then got Super and  
Night Super and went to bed. fair w<sup>e</sup> - Good health

→ 101/31 Tuesday / a.m. I got up and there was a white frost then I  
got dress<sup>t</sup> and went to Daniel's there I ate breakfast got my  
horse and went to the Election from Daniel and David Frank  
the Clerk - I stand till just Sun<sup>d</sup> then come away home  
(Call a. Daniel) then got Super and went to bed for - Good health

102/2 Wednesday / a.m. I went to Daniel's got dress<sup>t</sup> then to Mr. C.  
He told me at 2 o'clock m.m. was Daniel Goodney John  
Brinkley Andrew Hammetton David Frank Richard Gubertson  
Moses Manloe - Sheriff William Goodney Moses Freeman  
Coroner David Jerning Sam. Correy then I came home got  
dinner and a night Super. Went to bed for - Good health

103/3 Thursday / a.m. I went to Daniel's he went at home then I  
came home got dress<sup>t</sup> I got 3 or 4 people to water my  
I went to the D. G. main of any corn take then got  
dinner and bread Sun of my tobacco got Super and went  
to bed. fair weather and Good health

104/4 Friday / a.m. I went and dress<sup>t</sup> him then I came in got dress<sup>t</sup>  
and work all day and got about two barrels got dinner  
and at night went to bed for - Good health

105/5 Saturday / a.m. I got dress<sup>t</sup> but it rained so all day & I  
had to do work I past 3 o'clock with one thing or other  
till night then went to bed. Rain - Good health

→ 106/6 Sunday / a.m. I went to Daniel's got dress<sup>t</sup> then to John  
Harts stand till 2 o'clock then to Mr. C. I saw  
wife and there then I and I came home together  
we ate Sun<sup>d</sup> and at night went to bed.  
fair weather and Good health

Simon Gutz of Caesar Rodney, D. Gutz, same name

- Monday / a.m. I went to Mr. Ed. Thence to Danell.  
 107 / 7 Got Draft then Came home went and hung  
 Sam tobacco Came in Got Dinner sent and left.  
 Sam Squarrells Came in Got Super went to bed.  
 Fair weather Good Health  
 About Eleven o'clock at night my wife awakened me  
 for she was very bad. I got up and sent for Dr. J. and  
 wife and women but before any came Dr. Child was born  
 and it was a Son. there was no job with her but my  
 self. Being I sleep just about midnight.
- Tuesday / a.m. my Child being born and woman to take  
 108 / 8 care of my wife I ran away for Habelah Hyde  
 and left her all alone till I came back. The Land  
 my wife to bed and breast of Child then I and wife came  
 home. Elizabeth Wedham. She continued till day then we  
 got Draft and sent Dr. J. day away with Eating and Drinking and a  
 night I got Super went to bed. Fair and Good Health  
 my wife and Child continues brave. I will thank Dr. to God.
- Wednesday / a.m. I got up before day and got Draft then Dr.  
 109 / 9 Graney and my Sister in-law Mary went to bed.  
 In P.M. morning Eliza Wedham went home. Mr. C.  
 came and brought a woman to look after my wife.  
 then we got Dinner and at night Super and went to  
 bed. Fair weather and Well for Good Health.
- Thursday / a.m. I got Draft and went to bank got a horse  
 110 / 10 and went to go to Dr. Forest Landing but could not get  
 over thence to Mr. Finney and borrowed 1/2 lb of sugar  
 then I came to Danell left my horse and came home.  
 Got Super and went to bed. Fair weather Good Health.
- Friday / a.m. I went to Mr. C. Got Mary French to come to mat.  
 111 / 11 my wife a candle then I came home. Got Draft. hired a man  
 to work. Set him to work. then got Dinner and at night Super.  
 and went to bed. Fair weather Good Health.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



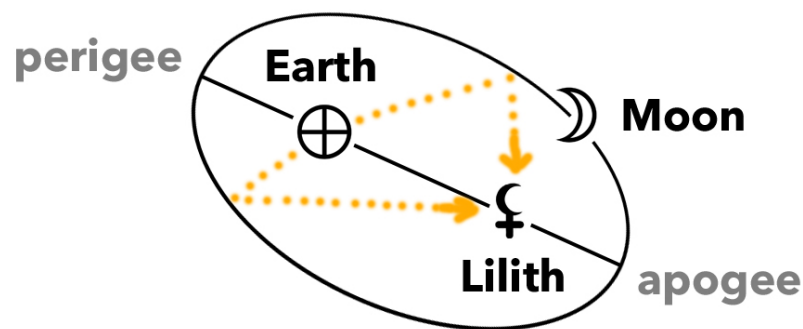
avantgarde

## First mention of Lilith as second focal point of the lunar orbit

For all that it appears, this was in 1937 in *Les présages à la lumière des lois de l'évolution* (*The Predictions in the Light of the Laws of Evolution*) by D. Néroman, on page 199 and 200. He says there that this was the first time he published about it. Extracts from the book can be found a bit further below.

### Details

The idea of a *Black Moon* Lilith as a *real object* in space is older, but today we know that there is certainly no such kind of object. This here is about the idea to define Lilith as the *second (empty) focal point of the lunar orbit*, as shown in the drawing below, which is not true to scale (the orbit is much rounder and Earth and Moon are smaller in comparison with the orbit):



If you imagined the lunar orbit to be reflective like a mirror, rays of light emitted from Earth would again meet at the second focal point of the orbit, hence on Lilith. Lilith has the same longitude as the apogee of the lunar orbit (the largest distance from Earth), which is why in astrology the two are often treated in practically the same way.

I looked at three books by D. Néroman, one from 1993, *Planètes et destins* (*Planets and Destinies*), published under the name Dom Nécroman, the one from 1937, and one from 1943, *Traité d'astrologie rationnelle* (*Treatise of Rational Astrology*). Apparently Néroman and Nécroman were pseudonyms and his real name was Pierre Rougié, according to Patrice Guinard in *L'astrologie française au XXème siècle*, <http://cura.free.fr/docum/10astrof.html>.

No mention of Lilith in the book of 1933, only in the book of 1937:

*Les présages  
à la lumière des lois de l'évolution  
par D. Néroman  
Ingénieur civil des mines  
Collège astrologique de France  
Éditions « sous-le-ciel »  
1937*

*Achevé d'imprimer le 10 mars 1937, sur les presses de l'Imprimerie E. G. I.,  
Directeur : Charles Fischer, 107, avenue de France, Anvers.*

Translation:

*The Predictions  
in the Light of the Laws of Evolution  
by D. Néroman  
Civil mining engineer  
Collège astrologique de France  
Éditions "sous-le-ciel"  
1937*

*Printing completed 10 March 1937, on the printing presses of E. G. I.,  
Director: Charles Fischer, 107, avenue de France, Anvers [Belgium].*

He first mentions Lilith on page 199 and 200:

**99. — Lilith, le trouble sexuel.**

*On connaît le mythe de Lilith, « lune noire ». Puisqu'il s'agit d'un facteur astrologique, la question qu'il pose a deux aspects : l'aspect astronomique, qui permet de situer Lilith sur le Zodiaque, et l'aspect influentiel, qui est scabreux et que je n'entends pas traiter ici.*

*Je n'ai jamais rien publié des travaux auxquels je me suis livré sur ce facteur, la nécessité de cette publication ne s'étant jamais imposée ; mais voici que, dans cette étude d'une évolution générale, garder le silence sur Lilith serait introduire une lacune ; je dirai donc ce que j'ai établi ou cru établir sur cet élément du thème astrologique, et je me contenterai naturellement de résumer, me réservant de publier assez prochainement, sous le titre « Les luminaires noirs », l'étude qui m'a donné ces résultats.*

*Le facteur qu'on appelle Lilith, c'est tout simplement, d'après cette étude, le foyer vide de l'orbite lunaire ; donc sur le thème il se confond avec l'apogée de la Lune.*

*[...]*

*Mais bien entendu ce n'est pas sur ce rapprochement que j'ai établi l'identité de Lilith et du foyer vide, et j'exposerai la question aussi complètement que possible dans « Les luminaires noirs ».*

*Pour l'instant, admettons que ce foyer est générateur des troubles et des exaspérations de la fonction sexuelle, sur lesquels nous n'avons pas l'intention d'insister, et que par conséquent nous pouvons l'appeler **Lilith**.*

Approximate translation:

**99. — Lilith, the sexual trouble.**

*The myth of Lilith, the “Black Moon”, is well-known. Since it is an astrological factor, the resulting question has two aspects: the astronomical aspect of situating Lilith in the zodiac, and the influential aspect, which is scabrous and which I do not intend to treat here.*

*I have never published anything from the works to which I devoted myself regarding to this factor, the necessity to publish never imposed itself; but here, in this study of a general evolution, keeping the silence on Lilith would be to make an omission; I will thus say what I established, or believe to have established, on this astrological element, and I will naturally content myself to summarize, reserving to publish quite soon the study that gave me these results under the title “Les luminaires noirs” [“The Black Luminaries”].*

*According to this study, the factor called Lilith is simply the empty focal point of the lunar orbit, hence topically it melts with the lunar apogee. [...]*

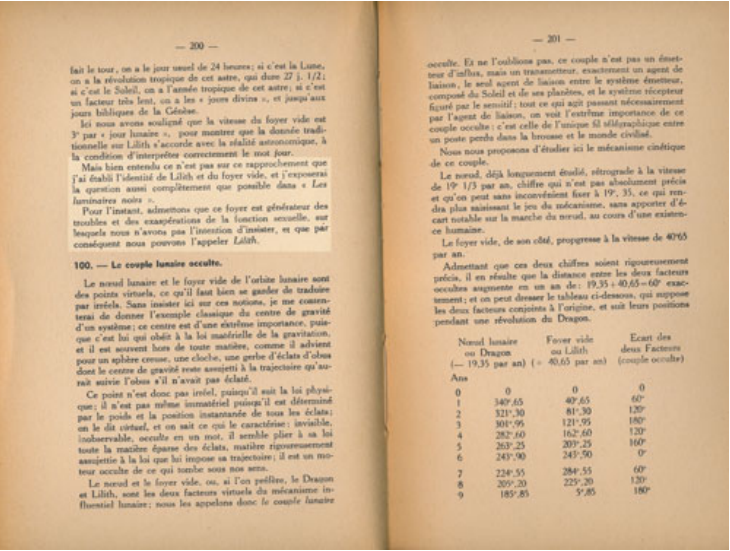
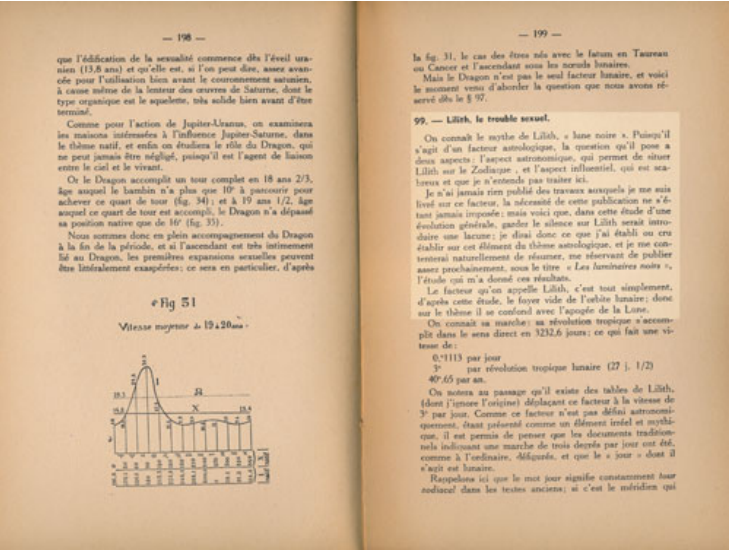
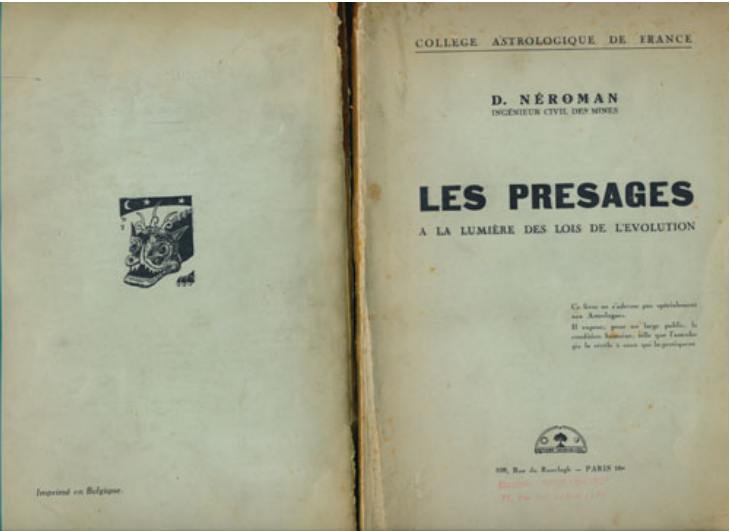
*But of course it is not because of this approximation that I have established the identity of Lilith with the empty focal point, and I will expose the question as completely as possible in “Les luminaires noirs”.*

*For the moment, let us admit that this focal point is a generator of troubles and exasperations of the sexual function, which we do not have the intention to insist on, and consequently we can call it **Lilith**.*

It seems that he would have never published “Les luminaires noirs”, since in the book from 1943 this title does not appear in the lists of works by the author, but in the book itself he speaks about Lilith, and also about the perigee, which he names *Priapus*, and also about the similar points for the orbit of the Earth around the Sun, namely the *Black Sun* (aphelion) and implicitly also the perihelion, which today is often called *Diamond* in astrology.

What is also interesting in the book from 1937, is how Néroman explains the influence of *virtual* points like Lilith and the lunar nodes by making a comparison with the center of gravity, which can be empty, like for example for a hollow sphere, but still exert force. Similarly, the empty focal point and the lunar nodes are also strongly linked to gravitational forces. More details in the book on page 200 and 201.

Here an impression of the book and the pages about Lilith:





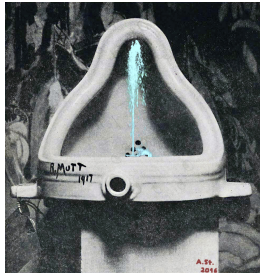
© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Dada and Duchamp's Fountain



Duchamp's 'Fountain' has a very direct relation to Dada: A 'dada' in french is a horse in children's language, also rocking and hobby horse and hobby, and appears in 'à dada sur mon bidet', the french version of playing gee-gees, and 'bidet' is a little horse, as well as the sanitary fitment, which strongly resembles Duchamp's 'Fountain', not least because of the usual meaning of 'fountain'.

### Details

(For many facts surrounding Duchamp's 'Fountain', see [Pilfered Pissaire? A Response to the Allegation that Duchamp Stole his Famous Fountain](#), Jesse Prinz, artbouillon, 20 Nov 2014.)

The name 'Dada' for the art movement originated in 1916 in the Zürich flat of Hugo Ball and Emmy Hennings in company of Richard Huelsenbeck (Huelsenbeck, *transition*, No. 2 (May 1927), pp. 134-135):

*I was standing behind Ball looking into the dictionary on his knees. Ball's finger pointed to the first letter of each word descending the page. Suddenly I cried halt. I was struck by a word I had never heard before, the word dada.*

*'Dada,' Ball read, and added: 'It is a children's word meaning hobby-horse'. At that moment I understood what advantages the word held for us.*

*'Let's take the word dada,' I said. 'It's just made for our purpose. The child's first sound expresses the primitiveness, the beginning at zero, in our art. We could not find a better word.'*

Independently of whether things took part exactly that way, the primary association of Dada seems to be with the french 'dada', which is children's language for horse, including rocking and hobby horse, and figuratively also means hobby.

The nursery rhyme 'à dada sur mon bidet' corresponds to the english 'to play gee-gees', hence where a child "rides" on the thighs of an adult.

The word 'bidet' stands in French originally and until today for a kind of little horse. Today's better known meaning as a sanitary fitment with some kind of "fountain" in it, originates from its original appearance that resembled a little horse, for example in 'La toilette intime ou la fleur effeuillée' by Louis-Léopold Boilly (1761-1845):



Duchamp had submitted 'Fountain' with help from his friends towards 1 April 1917 for the New York art exhibition. For all that it appears as Dada in the sense not least of the french 'dada'.

*Hence the fountain was intended to represent some kind of a bidet and thus Dada, as a sarcastic April Fool's joke. Almost all of modern art derives from that: This April Fool's joke became the 'object trouvé' / 'ready-made'. If you now think that these claims might be a bit exaggerated, you know the Bohème only from the outside. . .*



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## White-red-black and triple moon goddess ?

A dreamy little tour de force into a quote by Robert Graves in *The White Goddess* (1948) that relates ~~white-red-black~~ to a triple moon goddess:

*I write of her as the White Goddess because white is her principal colour, the colour of the first member of her moon-trinity, but when Suidas the Byzantine records that Io was a cow that changed her colour from white to rose and then to black he means that the New Moon is the white goddess of birth and growth; the Full Moon, the red goddess of love and battle; the Old Moon, the black goddess of death and divination. Suidas's myth is supported by Hyginus's fable of a heifer-calf born to Minos and Pasiphae which changed its colours thrice daily in the same way. In response to a challenge from an oracle one Polyidus son of Coeranus correctly compared it to a mulberry—a fruit sacred to the Triple Goddess. (Chapter 4)*

I will trace back some sources from the quote above, then expand a little into quite some directions and finally come to some conclusions, which maybe carve out the goddess a bit more clearly than ever before, or maybe just add to the mystery.<sup>1</sup> Just keep reading and get immersed without knowing.

“Suidas the Byzantine” refers to what is now usually known as the first encyclopedia ever, written in Byzantium (Istanbul, Constantinople) in the 10th century CE. There is no mention of a cow in that encyclopedia under *Io*, but the following under *Isis* (an ancient Egyptian goddess):

*She is [sc. also] called Io. She was snatched by Zeus from Argos [Myth, Place] and he, fearing Hera, changed her first into a white cow, then into a black one, and then into one that was violet-coloured. After wandering around with her, he came into Egypt. The Egyptians, then, honour Isis, and for this reason they carve the horns of a cow on the head of her statue, alluding to the change from maiden to cow. (stoa.org, transl. Jennifer Benedict)*

<sup>1</sup>This text is immediately based on some discussions at the Astrodienst (astro.com) forum in early spring 2019, which involved quite a few posts by *\*Momo\**, as well as two by *Sonnenkind* and one by *Quadrax*. Further back, this was also related to an earlier and very voluminous thread colloquially called *Mondfaden* (moon thread, December 2014 - June 2016) where further people contributed: *anna*. and *\*Momo\** throughout, and initially also *Novalis*, *fünftes Element*, *Moonman*, and quite a few more(!). Going even further back, this relates to and originates effectively from personal encounters with a woman—who would have guessed? Of course, reading in Robert Graves' *The Greek Myths* and later *The White Goddess* helped, too.

Well, at first sight no mention of the moon at all, and a different order of colors: **white-black-‘red’** instead of **white-red-black**.

To be sure, I checked the words in the original Greek text (also at stoa.org). It really speaks of a cow—as opposed to a bull—that was first white (color of light), then black, then “violet”. Note that relating color words to actual colors is usually difficult. A clear attribution is only possible when text passages are known in which the described object has a well-defined color, like e.g. a ripe blackberry, or when the text is next to a painting for which the original color could be reconstructed from chemical analysis, or something like that. . .

Let me simply look at the other reference that Graves makes, namely “Hyginus’s fable”. It is not clear who exactly Hyginus was and when exactly he lived, but most probably the Latin text in its surviving form is from roughly the 2nd century CE. But even after that things did probably not settle, as the following excerpt from “Hygini Fabulae” (transl. Mauricius Schmidt, 1872) shows:

*[. . .] cui dixerunt natum esse vitulum, qui ter in die colorem mutaret per quaternas horas, primum album secundo rubeum deinde nigrum.*  
(Page 115)

It speaks of a calf that had been born, which changed its color three times in a day, every four hours, first white, then red, then black. But, as a footnote in the book shows, “every four hours” (“per quaternas horas”) had apparently been added by “Tollius”, which probably refers to the 17th century Dutch classicist Jakob Tollius. This time it’s Graves’s order, **white-red-black**.

Let me look into things so far and where a—possibly premature—conclusion would lead

In ancient Egypt, the sun had three manifestations during a day. The sun in the morning was Kephri, the scarab, the sun at noon was Ra, the primary sun god and mythologically also the first pharaoh Egypt ever had, the sun towards noon was Atum. So, something that changes three times a day, like the color of the calf, maybe even in equal timeframes, which is close to four hours closer to the equator, as in Egypt, where the length of a day varies less than in Europe.

In ancient Egypt, there was also the Apis bull, already since the first Dynasty, a bull usually painted with black and white skin, plus red genitals and maybe a red blanket over his back. So, an ancient solar bull cult instead of a female moon goddess? Also a red sun at noon might fit, as several Egyptian gods and goddesses are shown carrying a red sun disk over their heads.

As it will turn out, this interpretation is most likely correct, but probably only confirms the power of the goddess. . .

The mulberry is mentioned just a bit further below in the fable:

*arbori moro similem esse; nam primum album est, deinde rubrum, cum permatur[us] nigrum* (Page 115)

The “arbori moro” would be the mulberry tree, most likely the black mulberry tree, but I guess the white mulberry tree cannot be excluded for sure (the red mulberry tree can, because it is originally from North America). Independently of the exact species, mulberries ripen from white via red to black, so exactly the order Graves gives, **white-red-black**.

Now, and this is crucial, the time it takes a mulberry to ripen from white via red to black is something like a moon cycle, possibly more precisely if you

look at the whole tree instead of a single berry, possibly not. This links two cycles, the one of the sun during the day and one for the phases of the moon. Whichever god or goddess is related to that in the end has the power over *both* of these things, over both sun and moon, and possibly more.

Going back to some facts, note that Minos, the king of Crete, was in mythology one of the three sons of Europe, who had ridden to Europe on Zeus disguised as a bull. Another son of hers was Midas, who turned everything to gold he touched. Gold is usually associated rather with the sun than the moon, since at least around roughly 0 CE, while the moon would rather be silver. Also, jewelry and money would immediately rather be Venus, who traditionally rules the astrological sign of Taurus, the bull. Then again, the moon is considered exalted (a good guest) in Taurus, at 3° Taurus—a hidden hint at a triplicity of a moon goddess, maybe?

In the fable, the oracle had been cast after the son of Minos and Pasiphaë had disappeared and predicted that whoever could interpret it correctly would save the child. Polyidus actually finds the child, but drowned in a large jar of honey, while chasing a ball (or maybe a mouse, as Graves writes). Polyidus finds the child below ground, I guess in the very labyrinth in which later the Minotaur was kept. Minos traps Polyidus down there, as the oracle is not yet fulfilled. Polyidus sees a snake, kills it, then a second snake comes and reanimates the first one with some herbs, which Polyidus uses, in turn, to reanimate the child.

This reminds again of ancient Egypt, where Ra, usually with the help of Seth, defeats the Apophis snake each night below ground and rises again every morning, victorious as the morning sun. It also reminds of the seer Tiresias in Greek mythology, who observed two snakes at sex. In ancient Egypt seeing such a thing was believed to lead to the “female disease”, (male) homosexuality, which makes it clear what part of the male bodies the snakes often stand for. Apollon killed the snake Python at Delphi, and Delphi means womb.

Well, again rather an ancient Egyptian sun god and some later derived myths of the Greeks, but no moon goddess in sight?

Let me present a different story first, and then come back to Egypt later. The Slavic fairy tale of the beautiful Vasilisa features an old “witch” called Baba Yaga. Vasilisa already lost her mother, and her step mother and two step sisters are just as mean with her as in the case of Cinderella. They send her to Baba Yaga to fetch something. While Vasilisa walks to Baba Yaga’s house in the woods, like Hänsel and Gretel, she encounters three horsemen. The first horseman is all *white*, horse and clothes, and passes her by just at dawn, before sunrise, when the sky starts to get a silver color. The second horseman, all *red*, rides by just a little bit later, at sunrise. Then she walks all day and just when the night falls, the third horseman, all *black*, rides by, and disappears just at Baba Yaga’s house into the ground.

Later on, Baba Yaga answers Vasilisa three questions, one about each horseman. According to her answers, they would all three be her servants, the white one would be day, the red one the sun, the black one night. Vasilisa is wise enough not to ask Baba Yaga about three pairs of hands that help in the house.

Now, what kind of goddess could possibly have six hands?

Yes, a triple goddess. The Greek Hekate, both a goddess of death and a midwife, like also the moon goddess Artemis, is often shown as three women standing back to back (or sometimes just with three heads or faces). But let me

ask how you would complete a sequence of supposedly four things that starts with: day, sun, night, ...? Yes, obviously with "moon".

As soon as the black horseman disappeared, the eyes of the skulls on Baba Yaga's fence of bones started to glow so much that her house was lighted as brightly as at day, which reminds immediately of a full moon. She later kills the step mother and the two sisters by creating a fire. This relates her also to fire, also in its ability to kill by burning.

The four elements in antiquity were water, air, earth and fire. Fire was a bit special in that group, as it appeared to exist both on the earth and in the sky, as sun, moon, planets and stars, i.e. as the lights (fires) in the sky. Aristotle introduced a fifth element that would essentially only exist in space, but not down on earth and move in circles.

Now, life can only exist in water, air and earth, but not in fire (except in mythology the salamander). So could Baba Yaga maybe stand for fire and the three horsemen for the other three elements? Seems a bit far fetched, right? But wait: Antiochus of Athens, who lived roughly in the 2nd century CE, attributed colors to the four elements, as follows: **water-white**, **air-red**, **earth-black** and **fire-yellow**. That would be exactly the colors of the three horsemen, plus yellow for fire and Baba Yaga!

The colors of the four horsemen of the apocalypse are similar. The first three are **white-red-black**, in that order. The color of the fourth horseman, "death", is usually translated as "pale". In the original Greek, it was *khlōros*, which stands for roughly for a pale or yellowish green, not unlikely referring here to the color of a dead person. It is also the root of *chlorophyll*, which makes leaves green and allows them to do photosynthesis. But back to that soon.

Remember the idea of a goddess or god that would govern the cycles of sun and moon? That would be Baba Yaga here: She is the boss over all fires in the sky and also over all fires down on earth. And also the other three elements (her horsemen) serve her. So she would be all fires and in command of all that moves, via the fire (energy) that makes them move.

And she would also be the moon, for the following simple reason: The sequence of day, sunrise and night is always stereotypically the same. Nobody has ever seen the sun rise before the sky started to light up or after the sun went down. Sometimes the sun is not visible at all, when hidden behind clouds, but I guess in places like ancient Egypt this was quite rare. But the **moon** can rise at any time, before or after **day**, **sun** or **night**. Thus the moon is the boss of these three things. That the moon is in the end stronger than the sun also shows during a total solar eclipse, where it is the moon that darkens the sun, not the sun that outshines the moon.

Baba Yaga's house is often described as standing on chicken legs. So it is mobile, it can move, figuratively in the sky, like the moon. An ancient historian describes fire sacrifices of animals to Artemis at Ephesus (now in Turkey). The animals which Artemis hunts, rules and protects, are the zodiac, and other constellations in the sky. She, in turn, is reportedly, just like her twin brother Apollon, from Hyperborea, a mythical country rather north "beyond the North Wind", so maybe also hinting at the north pole in the sky around which all else rotates. The two constellations near the north pole are bears, which fits with quite a few things in the mythology around Artemis.

But let me present the basic idea I have of the three aspects of the moon

goddess and her three colors. They would *not* simply be the colors of the moon at night, but rather the colors that make the moon change its color, as the *energy (fire)* that is driving all changes.

The first phase would be the ~~white~~ goddess making a new moon bright again, towards a full moon. The second phase would be the ~~red~~ goddess around full moon, somewhat before and after full moon, and what makes the moon pregnant. The third phase would be the **black** goddess from sometime after full moon, making the moon dark again, towards new moon.

The reason the middle phase would be red would be the cycle of menstruation. At full moon the seed for a new child would have grown inside her womb, ripened, like a baby in the full, round belly of pregnant woman. If not getting pregnant, the seed for the baby would come out as menstrual blood (and the placenta) at new moon.

The first phase would also be a child or a maiden before menstruation, the second phase a mature woman who can have children, and the third phase an old woman, who cannot have children any more. Remember that the encyclopedia entry above saw Isis as at the transition from maiden to cow?

So three phases: Growth, ripening (or fruit) and withering. The mulberry turning ~~white~~-**red**-**black**, the elements water (the sea), air (heaven) and earth (also the underworld), over which a trinity would have ruled, in ancient times according to Graves a triple goddess with ever changing member goddesses, and later the male gods Poseidon, Zeus and Hades, for example.

But where is the **fire**, the light green color? Well, the mulberry first forms *catkins*, which are apparently often also slightly bent, like a reborn moon after having become invisible for a few days. So that color is both death and rebirth, which is why Artemis and Hecate were midwives. They have the power to create new life, or not, if they desire. And cats.

Aristotle put the four elements into a circle, which they follow when changing from one element to the other: fire-air-water-earth-fire-... Yes, this is not the order of the mulberry. But at least his proposed cyclic nature of the fifth element would confirm this picture: Fire in the sky, the fifth element, would be related to the cycle of four elements down on earth.

After all, if you have a cycle of four elements that starts with fire, the fifth element in the cycle is fire again! This is maybe also why Dionysos was first born from fire, when Zeus had to reveal himself to his mother in his true form, as lightning and burnt the poor mother Semele to ashes, who had been tricked by jealous Hera into this. After being woven into Zeus' thigh, he was born a second time, this time not from fire, but from earth. Then he was cut up into pieces (similar to Osiris in Egypt) and cooked in water, the third element. Finally he was also stricken with madness, so, I guess, his mind reborn from air. That he often wore a lion's skin, might relate him to the fifth star sign in the zodiac, Leo, the lion, a fire sign, just like the first one, Aries, the ram.

In the scientific article *Flowering and fruiting of cv. Pakistan mulberry under saline soil conditions in Egypt* by Ahmed A. El Obeidy (Fruits, vol. 60 (6), 2005), experimental introduction of a special breed of black mulberry on saline soils is described. The fruit of the black mulberry are apparently the best, but that is not what caught my attention: "Fruit ripening began in the second week of March and extended to the third week of April".

In the Czech tale around Libuše, the mythological foundress of Prague, the

queen Niva and her husband Krok had three daughters, all with magical abilities, while the prophetic Libuše was the best of them all. Niva is the snow, winter, Krok the crocus flower, the first flower to start growing near the beginning of spring. The life of Niva was tied to an oak tree, which was guarded by Krok, so he was her servant. According to the Celtic tree circles found on the Internet, the oak tree would be the first day of spring (spring equinox around 21 March). Niva died when lightning (fire) hit the oak tree, and her youngest daughter, Libuše, became queen. That it apparently was the youngest daughter who would follow in reign, as opposed to the oldest son in patriarchal traditions, would show that she had absolute control about how many children would be born, making the youngest the most gifted.

Libuše used to give council and settle disputes sitting under a linden tree, which would apparently in the Celtic tree circle be responsible for two periods of time, including ten days before the beginning of spring, which is close to when the mulberries started to ripen in the paper cited above.

At some point in time, people no longer wanted a female rulership and asked Libuše to find a husband who would then be king and she his supportive wife. She said that they should look for a young farmer with just one shoe in a certain region. And, yes, they found such a farmer, be it because she actually was prophetic or because she thought that a poor, young farmer would make a good lover and probably not be too smart (else he would have had a second shoe and not be a farmer), so that she could easily direct him as king.

The lost shoe refers also to the last star sign in the Zodiac, Pisces, the fish, associated with the feet in the human body. It also refers to the sandal that Perseus lost when he helped Hera, disguised as an old woman, to cross a river by carrying her on his back. In ancient Egypt, the dead were buried on the western side of the Nile, where the sun sets. So, crossing the river would also be both death and rebirth by grace of the great goddess.

As Robert Graves also essentially writes, not long after the initial quote on top of this text, the single best reference to the “white goddess” is Apuleius’ *The Golden Ass*, a Latin text from roughly the 2nd century CE. Before going into some of the content of the book, let me simply quote how Isis describes herself to Lucius the night before the beginning of spring when she appears to him at full moon at the beach, rising out of the sea, like Venus in greek mythology or arguably her “hill” as the first earth out of the primeval sea Nun in ancient Egyptian creation myths.

A shining disk hovers above her head, which Lucius interprets as the moon and thus that she is a goddess of the moon. Her clothes are described in great detail: **white**, **crocus-yellow** and **red**, plus a **black** mantle on which there are the stars and a full moon, and flowers and fruit on the hem.

She says this to Lucius:

*[...] rerum naturae parens, elementorum omnium domina, saeculorum progenies initialis, summa numinum, regina manium, prima caelitem, deorum dearumque facies uniformis, quae caeli luminosa culmina, maris salubria flamina, inferum deplorata silentia nutibus meis dispenso: cuius numen unicum multiformi specie, ritu vario, nomine multiuigo totus veneratus orbis.*

Impressive, right? Oh, you don't speak Latin? Neither do I, but I read several translations, including the one by Robert Graves, and ended up with this translation to English:

*[...] mother of nature, all encompassing mistress of the elements, first progeny of the times, highest power/deity/queen, first/best (sky) deity, uniform face of gods and goddesses, who dispenses over heavenly, shining summits, salty sea breezes [and] the dead down below in earth, which are silently weeped. A single/unique goddess in multiple shapes, with changing rites, many names, worshipped all over the world.*

This brings it all together, the colors and rulership over air (heaven), water (sea) and earth (underworld), and the moon, as well as the beginning of spring. Why exactly spring, here and around Libuše? Well, simply because that is again where the goddess lives, at the point where the cycle both starts and ends, beginning of the year, new moon and catkins.

Before describing the story of the golden ass a bit in more detail and relating it to its times—in maybe quite surprising ways—let me dive a bit into lesser known waters, quite speculatively, or so it might appear at first...

Baba apparently simply means an old woman or grandmother, but there was an ancient Egyptian god Babi or Baba (the ancient Egyptians only wrote consonants, but not vowels), a baboon god especially known for his large, red genitals, which even served as a mast on the ship in the underworld. Like the Apis bull, Babi was already present in the first Dynasty (before 3000 BCE). There is apparently an image that shows the pharaoh with a white crown running first in front of a baboon, then behind or besides the Apis bull.

Sure, maybe just a coincidence. But then I remembered the Greek Baubo who showed her genitals to Demeter, who was weeping about her lost daughter Persephone, who Hades had abducted into the underworld. This cheered Demeter up, probably reminded her of her unique power to create life. So, again a reference to genitals and a similar name. Almost the same story appears also with Hathor showing her genitals to her father at some point, where he was angry about the process between Seth and Horus about who should be pharaoh that took 80 years to settle. This is why daughters even today still show their genitals to their fathers when fathers are feeling blue... – just making sure you are still reading attentively, this is not a serious suggestion from my side.

Now, Hathor is often a cow goddess, I guess even was before Isis got that role, too, but it is often very hard to tell things apart with certainty regarding ancient Egyptian gods and goddesses, maybe because the culture evolved across several millennia, or also because it is said that they all could transform into each other or, of course, into all kinds of animals.

As far as I remember, there was the notion in ancient Egypt at some time that the whole sky was a cow, which would also explain, where the milky way came from. So, be it the path of the sun during the day or the one of the moon at any time, it would always cross the universal sky goddess as the whole sky.

But is it certain that this was always or originally a cow and not a bull? Apis is a bull, and the sun god Re is male, too. For example in Theban tomb TT359, Re is shown as some kind of cat (but curiously also resembling a rabbit) in **yellow**, slaying the Apophis snake in **white-red-black** with a **red** knife.

Well, maybe the “Gretchenfrage” is a bit different. Women are more cyclic than men due to their menstrual cycles, and they are physically rounder, with their breasts, and overall more curvy than men. This would relate them more directly than men to things that go in circles, like lunar phases, seasons, planets in the sky, and so on, and also more to round objects in the sky like sun and moon. So, yes, this would apparently mirror women much more than men.

Now, this does not automatically mean that women would rule this. In a patriarchal society, men rule over women, so why not also about anything female, like sun and moon, and all that motion in the sky?

Well, this is maybe also not the question, rather: Should men do that, can they do that? I would say rather not, but, of course, they can and should provide input to consider, ideas, do stupid but loveable things. But, all in all, I guess this remains a matter that also causes a lot of pain, besides also often a lot of fun, sometimes closely interlocked. But actually I do not feel like I am a good person to make judgements like these.

But back to *The Golden Ass*. It was written in about the 2nd century CE, as already mentioned. Now, since about 103 BCE, the star that rises with the sun at the beginning of spring is in Pisces, when presumably the astrological age of Aries was replaced by an age of Pisces. The first star of Pisces is Alrisha, the knot, and probably also symbolizes birth, as it is part of the (umbilical) cord that connects the two fish that constitute the constellation of Pisces. These two fish are usually seen as mother and son, with old roots. In ancient Greece, they were Aphrodite (Venus) and her son Eros (Amor, Cupid).

It is also Aphrodite that gives the pregnant Psyche four tasks, in the fairy tale in the middle of the book, told by an old “Baba” at night in a cave. The four tasks are clearly related to the four elements and all have to be solved during a day. See my book *Elementary Star Signs* for an—arguably often quite bourgeois—exploration of these tasks and a model that would describe the 12 star signs of the zodiac as transitions between the four elements.

Psyche is, like later Snow White, the most beautiful woman on earth. Hey, remember that in Grimms’ version of Snow White, she is described as having snow ~~white~~ skin, pitch **black** hair and **red** lips, related to her mother hurting her finger while sewing and her blood dropping into the snow, her window enclosed by a black wooden frame? Frau Holle (Mother Hulda) was apparently (as \*Momo\* noticed) also described as travelling across the sky in a chariot pulled by lady beetles, which are, yes, colored ~~white~~**-red-black**.

But, hey, why don’t you read *The Golden Ass* yourself? Graves’ translation is very easy to read and there is so much more in it than I could ever summarize, from the theater prank they play on Lucius, via his transformation to an ass by a woman with magical skills, his dinner at the place of Artemis/Diana, and so on, and so on. Let me just mention where he mainly lived: Egypt.

In any case, the time frame also screams “beginning of spring”. So, is all of that maybe just self-confirming? That was also a time in which Christian religion arguably wanted to sort of unify the various pagan cults into more or less a single deity, in that case a male one. This was also the time in which the Mithras cult that included slaying of a bull was having quite a few followers. So, is the “white goddess” Isis in *The Golden Ass*, who actually rather wears black plus other colors, just a child of her time, nothing that was before or even much after that? Apuleius just one of several priests messiahs back then?



Well, as always around the great goddess, or around women, in general, the answer is a bit of both, but quite specifically. She does embody all that is female and which had been there before, in all kinds of cults, but possibly none of them combined all of that so synthetically into all stereotypes at once? Yeah, sure. But it is true that Pisces are generally seen a sign that is good at synthesis, as opposed to Virgo, who is rather analysis, seen as taking things apart in order to see how exactly they related to each other. Both are considered female signs in astrology, and there are four more female signs. So, all in all, only the carpet of associations is what creates the complete image.

Let me just leave it at that, just follow all the leads I showed and copy my approaches to these themes, which, of course, also resemble the ones of Robert Graves somewhat: Partially careful and precise research, partially poetic, synthetic intuition. I would add, that in the end it should all not be taken all too seriously, because ruling over it all in the end often is.

Adliswil, 14 April 2019, Alain Stalder

## Notes and Sources

This text was written on the late afternoon and evening of 13 April and the relatively early morning of 14 April 2019. Similarly, Graves wrote *The White Goddess* in a very short time, starting sometime in early spring. In 2019, Mercury went retrograde around 5 March at the end of Pisces, and is only in a few days going to return to that spot, so this gives me some time to collect a few more facts and sources here.

Robert Graves' northern lunar node was in the middle of Pisces, which may explain his approach. This is also where Neptune is now, or my natal Lilith or maybe the sun of someone implicitly mentioned before. My Saturn is in the last degree of Pisces, where Mercury had gone retrograde, as already mentioned.

Did you know that Robert Graves was briefly a professor in Cairo (Egypt) between January and about June 1926? Along with his wife at the time, Nancy, and their children, the young poet Laura Riding came along. In 1929 he separated from his wife, wrote *Goodbye to all that* in a few weeks and then the whole story with Laura Riding took really off, which arguably was a main source for *The White Goddess*, and so on, not to forget Beryl (or Rosaleen).

Well, for sources, just ask Google. Some information is, of course, from Wikipedia. Did you know that Jimmy Wales, one of its founders, was born the same day (in the same year) as me? The notion of offering all this for free and without ads is something that I can relate well to. But still, of course, it would also be nice to mention those sources explicitly. Conversely, I had more than once the impression that some information in Wikipedia had been obtained from original sources that I had possibly mentioned first on the Internet and others had googled and then worked into Wikipedia.

Hey, this has nine pages, an Ennead? Uranus is in Taurus, which might explain all the bull/cow symbolism, ~~white-red-black~~?

Thanks a lot for reading! And see my website ([exactphilosophy.net](http://exactphilosophy.net)) and the Astrodienst ([astro.com](http://astro.com)) forum for more, if you want.

Frozen except possibly tiniest formal fixes Sun 14 April 2019 near noon.

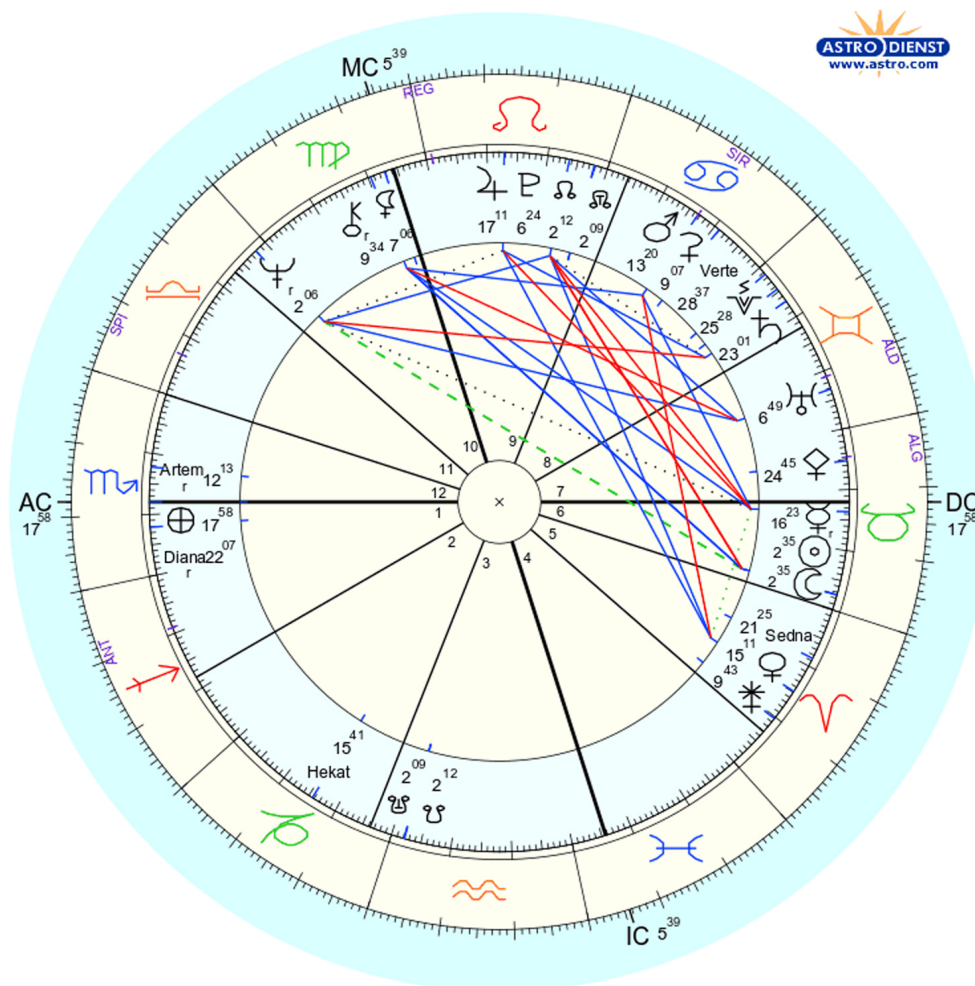
*Egypt in Transition: Social and Religious Development of Egypt in the First Millennium BCE*, eds. L. Bareš, F. Coppens and K. Smoláriková, Prague, 2010.

## Postscript 18 April 2019

A few days later (17 April), I researched when Robert Graves started to write *The White Goddess*, mainly in Richard Perceval Graves' *Robert Graves and the White Goddess*, near the end of chapter 4. According to that, he would have started sometime after Easter 1944, which was 9 April, and after "making serious headway" with his maps for *The Golden Fleece*, but "could not get out of his head some lines from Alun Lewis's last letter" (died 5 March).

What would be a better moment to start a book about the white goddess, if not a new moon, the beginning of a new cycle, with the first part her own? New moon was Saturday 22 April at 22:43:23 in Galmpton (Devon). The new moon was at 2° 34' 41" Taurus. Now, the 3rd degree of Taurus is where, according to Ptolemy, the moon is exalted. Earlier that day (around 2 AM), Mercury had gone retrograde for almost three weeks; Robert Graves writes that he wrote the first version in about three weeks. An archetypal female lunar cycle would be three weeks of activity, followed by one week of reorientation.

That is why the three colors of the cow came up, and, Hermes (Mercury) stole 50 cattle from Apollon in the *Homeric Hymns* by walking backwards, just like Robert Graves in the book. There would be more details, but... wow!



Uranus is in the 3rd degree of Taurus since last Saturday 13 April at 19:45.

See [www.exactphilosophy.net/white-red-black-and-the-green-goddess.pdf](http://www.exactphilosophy.net/white-red-black-and-the-green-goddess.pdf) for a longer article about the same themes, titled 'White-red-black and the "green" goddess'.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## White-red-black and the “green” goddess

Some details around my article “[White-red-black and triple moon goddess ?](#)” of April 2019, mainly for people not so familiar with these things.

Contrary to the original article this one took longer to write, is thus less art, less bohème, more bourgeoisie. But, I hope, still a very interesting read.

In any case, many of the details and arguments shown here and in the original article are not so easy to find and some ideas are genuinely novel, original.

### White-red-black and triple moon goddess ?

A dreamy little tour de force into a quote by Robert Graves in *The White Goddess* (1948) that relates white-red-black to a triple moon goddess:

Even though I start with a quote from Robert Graves, the article is not about Robert Graves, nor his book, but about the goddess, independently of what the article may in the end suggest about her existence.

Two weeks before writing the article, just after leaving a cinema in Zürich in the early evening of a Saturday, I had noticed a woman who was walking along, smoking a cigarette, which is somewhat rare these days. She looked “hot” in a confident, yet wild, way, and was wearing a coat that looked gray, but maybe more likely seemed to be white with many black lines, possibly plaid. Her leggings or stockings were black and in her right hand she was holding a quite large lacquered red purse. At the handle of the purse I saw something in black and white, affixed with some kind of ribbon: a relatively large question mark “?” in black, surrounded by a white frame in the same shape.

As I found out the next day, that evening had been just after Shabbat Parah, a Jewish holiday, the Sabbath of the red heifer, where a heifer is a cow that is able to have children, but has never been pregnant, yet. That holiday is three weeks before Passover (Pesach), which is, like Easter, celebrated essentially on the first full moon after the beginning of spring (spring equinox, the day at which day and night are of equal length). In any case, the moon phase was just a couple of days after waning half moon, towards new moon.

When the moon is in the shape of a crescent, the moon goddess Artemis (or Diana, and her many more names) goes hunting, as the crescent of the moon is her hunting bow, on the ecliptic, the zodiac, the circle of her animals. This does, of course, not limit her power to only that part of the night sky, nor anything else, as I hope to expose a bit in the following.

*I write of her as the White Goddess because white is her principal colour, the colour of the first member of her moon-trinity, but when Suidas the Byzantine records that Io was a cow that changed her colour from white to rose and then to black he means that the New Moon is the white goddess of birth and growth; the Full Moon, the red goddess of love and battle; the Old Moon, the black goddess of death and divination. Suidas's myth is supported by Hyginus's fable of a heifer-calf born to Minos and Pasiphae which changed its colours thrice daily in the same way. In response to a challenge from an oracle one Polyidus son of Coeranus correctly compared it to a mulberry—a fruit sacred to the Triple Goddess. (Chapter 4)*

I verified that this paragraph was already in the original edition of *The White Goddess* of 1948. More precisely, it was already in the first US edition by Creative Age Press of New York; I could not find a copy of the first edition by Faber and Faber of London, published 21 May 1948, to verify that the paragraph was already in there, but this seems very likely.

The 1948 edition has the same chapters as later editions, except for two chapters added later on at the end of the book: *The Return of the Goddess* and *Postscript 1960*. It appears that Robert Graves later added some paragraphs in the chapters (and made corrections), but essentially kept the flow of the original intact, similarly to what I am doing here with my original text.

I will trace back some sources from the quote above, then expand a little into quite some directions and finally come to some conclusions, which maybe carve out the goddess a bit more clearly than ever before, or maybe just add to the mystery.

It is difficult to enumerate what exactly would have carved her out more precisely, but relating her to 3+1 classical elements and their transformations is probably new in our times, and there are clearly ancient Egyptian roots, albeit not with much visible triplicity or matriarchy. This is different in, say, Ireland or Czechoslovakia, until practically today. So, the goddess might in some sense not be all that universal in the sense of being “officially” recognized, now and in the past. More night and shadow than in plain daylight, like the moon?

This text is immediately based on some discussions at the Astrodienst (astro.com) forum in early spring 2019, which involved quite a few posts by *\*Momo\**, as well as two by *Sonnenkind* and one by *Quadrix*. Further back, this was also related to an earlier and very voluminous thread colloquially called *Mondfaden* (moon thread, December 2014 - June 2016) where further people contributed: *anna*. and *\*Momo\** throughout, and initially also *Novalis*, *fünftes Element*, *Moonman*, and quite a few more(!). Going even further back, this relates to and originates effectively from personal encounters with a woman—who would have guessed? Of course, reading in Robert Graves' *The Greek Myths* and later *The White Goddess* helped, too.

The *Mondfaden* was called *Der Mond und die Astrologie (und die Welt)*; thread number with link: [1419585854](#). I started it 26 December 2014 at 10:24 in the morning (local time Zürich). See the link for a complete list of who contributed what. Similarly for the thread titled *Weiss-Rot-Schwarz und dreifaltige Mondgöttin?* of spring 2019, [1554240294](#). Note that there were other threads in the same timespans that also touched related themes at times. Many thanks to all who contributed, be it publicly with posts or silently by reading, feeling, considering!

Maybe I will write down something related to my personal encounters with the mentioned woman one day, or maybe not. A tiny little bit will follow later here.

I never read any of the two books by Robert Graves in their entirety, at least so far. I was clearly coming from Greek mythology and would often read relatively randomly in *The Greek*

*Myths* in summer at the lake, and still do. A first look into *The White Goddess* followed only in 2015, but, of course, indirectly some of its content had already reached me before via various channels, as his two books had influenced quite a few people.

■ Just keep reading and get immersed without knowing.

I wrote this mainly because I felt what was coming, that I would be able to write something beautiful and coherent, based on recent and past findings, but not really under my conscious control in which ways exactly things would arrange, a bit like (or exactly like) the *écriture automatique* (automatic writing) of the surrealists, which has much older roots, of course.

So, in a sense, I myself also got immersed without knowing, just a bit earlier.

But, again, this is not about me, nor Robert Graves, nor probably about most readers of the text. . .

Enough bourgeois preamble, time for more bourgeois explanations around the colors of the goddess. But still fun, after all to you this might be new.

“Suidas the Byzantine” refers to what is now usually known as the first encyclopedia ever, written in Byzantium (Istanbul, Constantinople) in the 10th century CE. There is no mention of a cow in that encyclopedia under *Io*, but the following under *Isis* (an ancient Egyptian goddess):

*She is [sc. also] called Io. She was snatched by Zeus from Argos [Myth, Place] and he, fearing Hera, changed her first into a white cow, then into a black one, and then into one that was violet-coloured. After wandering around with her, he came into Egypt. The Egyptians, then, honour Isis, and for this reason they carve the horns of a cow on the head of her statue, alluding to the change from maiden to cow.* (stoa.org, transl. Jennifer Benedict)

The Wikipedia entry for *Suda* states:

*The Suda or Souda [...] is a large 10th-century Byzantine encyclopedia of the ancient Mediterranean world, formerly attributed to an author called Soudas [...] or Suidas [...]. It is an encyclopedic lexicon, written in Greek, with 30,000 entries, many drawing from ancient sources that have since been lost, and often derived from medieval Christian compilers. The derivation is probably from the Byzantine Greek word souda, meaning “fortress” or “stronghold”, with the alternate name, Suidas, stemming from an error made by Eustathius, who mistook the title for the author’s name.* (retrieved April 2019)

Be it as it may, and even considering the rather late date of the encyclopedia compared to antiquity, the entry is primarily about Isis, even though *Io* is closely linked to Isis there, which certainly makes sense, considering also other sources. So, this leads to Egypt, as Isis is an ancient Egyptian goddess.

Now, at the time the great pyramids were built, the constellation on the zodiac rising at the beginning of spring was Taurus, the bull. This links Egypt and other cultures that emerged before around 1600 BCE to bulls, or also cows and calves. After that followed Aries, the ram, until about 0 CE, since then Pisces, the fish. This is due to the precession of the Earth’s axis, like the slow “wobbling” of a spinning top besides the fast motion around its axis; Earth rotates around its axis once every 24 hours, the “wobbling” is about 26’500 years, so roughly 2150 years per star sign, but constellations have various sizes.

Between roughly 1550 and 1500 BCE, around the time the first star of the constellation of Aries passed the spring equinox, symbolically starting the age of Aries, there was a pretty huge volcanic eruption on the island now known as Santorini, which probably caused also damage on the larger island of Crete, then the center of the Minoan culture, with a prominent bull cult. That volcano eruption probably at least contributed to the subsequent downfall of Minoan culture and influence in the region. Note that “santorini” sounds superficially like “holy bull”, even though at least at first sight, the etymology seems to indicate different origins. Crete will come up again later on.

Now to colors. This appears still to be a subject of much active research, so let me just say that black, white and some kind of red, which included probably other colors not called red today, were apparently often the first colors mentioned in history. In a way this would make sense, as these would be quite fundamental and strong signal colors: white as very bright like the day, black as very dark like the night and red as the strongest signal color, also used as a warning color by many poisonous plants and animals.

What word exactly would have been used to describe “red” is often not so easy to find out. Since written color words were usually *not* placed next to an actual color sample, linking words to colors often requires to study many text passages, with maybe some referring to something in nature that has the same color. Or sometimes maybe the text is next to a painting, then, with chemical analysis, the original color can possibly be determined.

If you are interested in colors in history, see (besides the Internet) also Earl A. Anderson's book *Folk-Taxonomies in Early English*.

Robert Graves translated the “red” color as “rose”, while the above translation by Jennifer Benedict used “violet-colored”. Here is the original Greek, which you can find at [stoa.org/sol](http://stoa.org/sol) if you search for ‘isis’:

Ἰσις: αὕτη λέγεται Ἰώ: ἦν ἥρπασεν ὁ Ζεὺς ἐξ Ἀργούς καὶ τὴν Ἥραν φοβούμενος μετέβαλεν αὐτὴν ποτὲ μὲν εἰς λευκὴν βοῦν, ποτὲ δὲ εἰς μέλαιναν, ποτὲ δὲ ἰάζουσαν: μεθ' ἧς πλανώμενος ἦλθεν εἰς Αἴγυπτον. τιμῶσιν οὖν Αἰγύπτιοι τὴν Ἰσιν: διὸ ἐπὶ τῆς κεφαλῆς τοῦ ἀγάλματος αὐτῆς κέρατα βοῶς γλύφουσι, δηλοῦντες τὴν ἐπὶ βοῦν τῆς κόρης μεταβολήν.

The first color would be “leukós”, white, the second color “melania”, black. I could not find the third color in online dictionaries so far, but at least it was very likely neither black nor white. Pity, but let me move on.

Well, at first sight no mention of the moon at all, and a different order of colors: ~~white-black~~-‘red’ instead of ~~white-red~~-black.

The order of colors is definitely different than what Robert Graves gives. Unless there are different versions or an error in the online Greek text, Robert Graves would have misquoted, except maybe if the source he used had already gotten the order wrong.

And, yes, immediately no mention of the moon at all, instead the goddess Isis transformed into a cow in sequentially changing colors white-black-“red”.

To be sure, I checked the words in the original Greek text (also at [stoa.org](http://stoa.org)). It really speaks of a cow—as opposed to a bull—that was first white (color of light), then black, then “violet”. Note that relating color words to actual colors is usually difficult. A clear attribution is only possible when text passages are known in which the described object has a well-defined color, like

e.g. a ripe blackberry, or when the text is next to a painting for which the original color could be reconstructed from chemical analysis, or something like that. . .

Looks like I got somewhat ahead of myself in this more detailed version. Just one more thing to note: It appears that the word used for “cow” would also denote a bull or an ox, but since a female goddess was transformed into it. . .

Let me simply look at the other reference that Graves makes, namely “Hyginus’s fable”. It is not clear who exactly Hyginus was and when exactly he lived, but most probably the Latin text in its surviving form is from roughly the 2nd century CE.

R. Scott Smith writes in *Apollodorus’ Library and Hyginus’ Fabulae* (2007):

*[...] we know little to nothing about the collection of myths that goes under the title Fabulae, about the person who wrote it, and about its date of composition. For this Latin collection there are further difficulties: over the course of its existence the original work has been modified, reorganized, abridged, and again expanded, all while suffering mutilation and corruption along the way. [...] we are better off speaking about authors rather than a single author, and dates instead of a single date. Simply put, the collection of myths we possess under the name Fabulae is likely so far removed from the author’s original that, we suspect, he would have scarcely recognized it as his own.*

Makes it, of course, difficult to be certain that no important elements around the colors were added, modified or removed. Note that the original text would apparently have been in Greek and then translated to Latin.

I am not sure if “the Latin text in its surviving form is from roughly the 2nd century CE” is strictly true, but it might come close, also since that time (first 2-3 centuries CE) is the source for so many texts that preserved earlier texts from early to late antiquity, while it is often difficult to distinguish what was added or interpreted then from what is genuinely older.

But even after that things did probably not settle, as the following excerpt from “Hygini Fabulae” (transl. Mauricius Schmidt, 1872) shows:

*[...] cui dixerunt natum esse vitulum, qui ter in die colorem mutaret per quaternas horas, primum album secundo rubeum deinde nigrum.* (Page 115)

It speaks of a calf that had been born, which changed its color three times in a day, every four hours, first white, then red, then black. But, as a footnote in the book shows, “every four hours” (“per quaternas horas”) had apparently been added by “Tollius”, which probably refers to the 17th century Dutch classicist Jakob Tollius. This time it’s Graves’s order, ~~white~~-red-black.

Note that I do not know for what reasons Tollius might have made the modification. Maybe just interpretation; but if so, based on what reasoning or sources? Or did he maybe even have access to a different source of the Fabulae?

Mauricius Schmidt’s book is available online, like many older books that are no longer protected by copyright these days.

Let me look into things so far and where a—possibly premature—conclusion would lead

I am aware that the period is missing in the sentence above. I noticed that already sometime while writing, but then considered it fitting that a premature conclusion would not end with a period. . .

In ancient Egypt, the sun had three manifestations during a day. The sun in the morning was Kephri, the scarab, the sun at noon was Ra, the primary sun god and mythologically also the first pharaoh Egypt ever had, the sun towards noon was Atum. So, something that changes three times a day, like the color of the calf, maybe even in equal timeframes, which is close to four hours closer to the equator, as in Egypt, where the length of a day varies less than in Europe.

In ancient Egypt, there was also the Apis bull, already since the first Dynasty, a bull usually painted with black and white skin, plus red genitals and maybe a red blanket over his back. So, an ancient solar bull cult instead of a female moon goddess? Also a red sun at noon might fit, as several Egyptian gods and goddesses are shown carrying a red sun disk over their heads.

As it will turn out, this interpretation is most likely correct, but probably only confirms the power of the goddess. . .

I do not know the exact primary source(s) of the attribution of three Egyptian gods for the sun during a day; I simply repeated what I found in several places. According to Wikipedia, [Khepri](#) would mean “develop”, “come into being”, or “create”, while [Atum](#) would mean *to complete or finish* (retrieved April 2019), which would apparently largely confirm this view.

Independently of the exact duration of a day, attributing three colors to different “phases” of the sun during the day seems much more immediate in a context that seems at first sight Egyptian, with a calf and the same colors as around Isis. After all, the sun god Ra is often shown with a **red** sun disk over his head, as well as other ancient Egyptian gods. But then again, why red for noon considering that the sun is rather red at sunrise or sunset? But some more considerations around that later. . .

The Apis bull is certainly very interesting. The Ancient History Encyclopedia at [ancient.eu/Apis](#) writes the following (among more interesting facts):

*There are no myths related to the origin of Apis, but he is attested to through engravings from the Predynastic Period (c. 6000-3150 BCE). [...] In the Early Dynastic Period, the ritual known as The Running of Apis was performed to fertilize the earth. [...] [The bull] had to be black with a white triangular marking on its forehead, another white marking on its back in the shape of a hawk's or vulture's wings, a white crescent on its side, a separation of the hairs at the end of its tail, (known as the “double hairs”) and a lump under its tongue in the shape of a scarab.* (retrieved April 2019)

A painted coffin footboard (8th to 4th century BCE) at the same site shows the Apis bull in black and white, except red for genitals, the inside of the ears and the snout, plus a red blanket over his back. The only other color used is yellow for more stuff attached to the bull.



I am not sure since when these colors were used for the Apis bull, but knowing this would certainly be interesting.

One thing caught my attention, though, but I just see that I completely forgot to give you a summary of the fable around that calf. The fable is numbered 136 and called *Polyidus*. Glaucus, the son of Minos and Pasiphaë, king and queen of ancient Crete (who would have guessed?), fell into a large pot of honey, while playing with a ball or maybe a mouse, at least Robert Graves suggests the latter as a possibility. The parents, as it was maybe custom in those times, ask Apollon for an oracle that would help them to find their missing son. The oracle is quite imprecise, simply speaking of an omen that would have been born and that whoever could correctly interpret it, would bring back the lost son. That person was Polyidus, who linked the color change to the change of color of a ripening mulberry: white to red to black.

Polyidus does actually find the boy, but already drowned in the honey. King Minos encloses Polyidus in the cellar where he had found the boy, demanding that he would bring him back to life, as apparently promised by the oracle. Polyidus sees a snake that approaches the boy and kills it. Then a second snake comes and restores the first snake to life with some herbs. Polyidus does the same with the boy and both are saved. See R. Scott Smith's book for a 1:1 translation of the Latin original; it is quite a short fable, just a few sentences.

Now I can briefly mention what Apis remembered me of: That the latin name for biological genus of bees is *Apis*. Although I did not bring this up in the original text, you may want to relate the golden honey that bees produce to the goddess. Note also that when Odysseus awoke in the middle of the Odyssey at his home island Ithaca, but was not aware he was home, there were honey pots in the cave he woke up in. But I will not really delve into this here. Let me just say that there are quite some indications that Odysseus' faithful wife Penelope was probably originally a goddess, if not rather *the* goddess.

The mulberry is mentioned just a bit further below in the fable:

*arbori moro similem esse; nam primum album est, deinde rubrum, cum per-matur[a]uit nigrum* (Page 115)

The “arbori moro” would be the mulberry tree, most likely the black mulberry tree, but I guess the white mulberry tree cannot be excluded for sure (the red mulberry tree can, because it is originally from North America). Independently of the exact species, mulberries ripen from white via red to black, so exactly the order Graves gives, **white-red-black**.

The Latin colors are quite specific, album-white, rubrum-red and nigrum-black, except, of course, that at some point someone had to translate from Greek to Latin and could in principle have been imprecise. But, in any case, the order is exactly as listed by Robert Graves and as proposed as the “canonical” order.

R. Scott Smith translated “arbori moro” as “blackberry bush”, which has fruits that are very similar to mulberries, but I would lean strongly towards a mulberry tree, also because mulberries grow on trees but blackberries on bushes. But some crude botanical details about mulberry trees first, based on some surfing on the Internet, please verify as needed. There are roughly three kinds: white, red and black mulberry trees, but the names are somewhat misleading, as in all cases ripe berries are usually black. The red mulberry tree can be excluded, as it is native to North America and the fable certainly dates back

to a long time before Columbus sailed to America. The white mulberry tree is best known for its use in China to feed silk worms with its leaves, in order to produce silk, but the white mulberry was apparently already known in the Near East sometime in antiquity. The black mulberry tree has the best tasting berries and was also known in the region at the time, although it appears to me that the ancient Egyptians did not know the white or black mulberry tree in the old kingdom (earliest dynasties), only sometime later, but probably already at the time of the fable.

A closer botanical look would certainly be fruitful, but let me note that there are many kinds of fruit that ripen from an initial light color via red to black, although arguably not many of them start out with a clear white color; a light green seems more common. In particular, the fig-mulberry or sycamore fig appears to have been known in ancient Egypt already very early on.

Now, and this is crucial, the time it takes a mulberry to ripen from white via red to black is something like a moon cycle, possibly more precisely if you look at the whole tree instead of a single berry, possibly not. This links two cycles, the one of the sun during the day and one for the phases of the moon. Whichever god or goddess is related to that in the end has the power over *both* of these things, over both sun and moon, and possibly more.

Let me repeat and emphasize that:

*Whichever god or goddess is related to that in the end has the power over both of these things, over both sun and moon, and possibly more. More might include everything else on the night sky, as well as everything down on earth, including the sea and the underworld.*

That is the basic idea here, and I guess in the end also largely of Robert Graves: A universal deity that is more than “just” the moon. In Greek mythology, the goddess that stood maybe most directly for the moon was Selene (and Helios for the sun), while the “moon” goddess Artemis was closer to that universal goddess, or her twin brother, the “sun” god Apollon to that universal god, or maybe both, like Yin and Yang. But maybe I am getting a bit too poetic, yet.

Going back to some facts, note that Minos, the king of Crete, was in mythology one of the three sons of Europe, who had ridden to Europe on Zeus disguised as a bull. Another son of hers was Midas, who turned everything to gold he touched. Gold is usually associated rather with the sun than the moon, since at least around roughly 0 CE, while the moon would rather be silver. Also, jewelry and money would immediately rather be Venus, who traditionally rules the astrological sign of Taurus, the bull. Then again, the moon is considered exalted (a good guest) in Taurus, at 3° Taurus—a hidden hint at a triplicity of a moon goddess, maybe?

It appears not to be true that Midas would be mentioned as a son of Europe (but Minos was, and Europe was a daughter of Io), so let me not insist here, even though looking at the mythology, there seem to be some links to Egypt.

About sun and gold, resp. moon and silver, I am not sure since when that association is commonly made, even though I suspect that this is quite old, at least for the sun and gold, due to the color of gold. Attributing silver with the moon might then arguably have been a rather natural next step.

The exaltation of the moon at  $3^\circ$  Taurus is from Ptolemy, but I am not sure how exactly he meant  $3^\circ$ . Did he mean the 3rd degree, i.e.  $2^\circ00'00''$  to  $2^\circ59'59''$  or maybe plus/minus half a degree around  $3^\circ$ , or maybe something else? A look into primary sources could clarify that. But more importantly, I have no clue why exactly  $3^\circ$  Taurus and not another degree, also not for the other exaltations. One explanation could be the beginning of spring in the late Age of Taurus, if the bull was really mainly associated with the moon then.

In the fable, the oracle had been cast after the son of Minos and Pasiphaë had disappeared and predicted that whoever could interpret it correctly would save the child. Polyidus actually finds the child, but drowned in a large jar of honey, while chasing a ball (or maybe a mouse, as Graves writes). Polyidus finds the child below ground, I guess in the very labyrinth in which later the Minotaur was kept. Minos traps Polyidus down there, as the oracle is not yet fulfilled. Polyidus sees a snake, kills it, then a second snake comes and reanimates the first one with some herbs, which Polyidus uses, in turn, to reanimate the child.

About the reference to the Minotaur: Is it known what color the thread of Ariadne had? Germans today speak of "roter Faden" (red thread) when they mean the figurative thread in a story, the recurring theme or evolving story that clearly defines where it leads. Hmn. Maybe I should return more to the main themes, or is this exactly the theme? Well, let me just refer to Barbara G. Walker in her book *The Woman's Encyclopedia of Myths and Secrets* under *Gunas*, the Indian (as in India) strands of Fate in the three expected colors. Or that during the Ramadan you are apparently allowed to eat in the evening as soon as you cannot distinguish a white thread from a black thread in your hand.

Yes, in principle it is a "bad idea" in a text aiming to clarify some sources of a partially improvised other text to introduce new partially improvised associations. But this is me, and also in some sense how my mind works. Then again, I am a physicist (Ph.D.), so I have also a side that is very grounded on facts and logic, but still flexible while exploring and which kinds of logic to apply. Associative "female logic" is not nonsense, not something that should be arrogantly smiled at. It is simply how many things work in the world, in language and also to some degree in nature overall.

If you have doubts, read on, if not, anyways, too. ;)

This reminds again of ancient Egypt, where Ra, usually with the help of Seth, defeats the Apophis snake each night below ground and rises again every morning, victorious as the morning sun. It also reminds of the seer Tiresias in Greek mythology, who observed two snakes at sex. In ancient Egypt seeing such a thing was believed to lead to the "female disease", (male) homosexuality, which makes it clear what part of the male bodies the snakes often stand for. Apollon killed the snake Python at Delphi, and Delphi means womb.

I cannot find a source for observing snakes and the "female disease" at the moment, but remember clearly to have read that quite recently (relative to April 2019). In any case, the association of snakes with that part of a man makes sense. Note also that in Delphi the Pythia (from the snake Python) would sit on a tripod (3) over an opening of the earth, the womb of nature, and that at Delphi there probably used to be a temple of the earth goddess Gaia.

Well, again rather an ancient Egyptian sun god and some later derived myths of the Greeks, but no moon goddess in sight ?

Well, yes and no: Considering Delphi maybe in the past also at least some earth besides the sun ?

Let me present a different story first, and then come back to Egypt later. The Slavic fairy tale of the beautiful Vasilisa features an old “witch” called Baba Yaga. Vasilisa already lost her mother, and her step mother and two step sisters are just as mean with her as in the case of Cinderella. They send her to Baba Yaga to fetch something. While Vasilisa walks to Baba Yaga’s house in the woods, like Hänsel and Gretel, she encounters three horsemen. The first horseman is all **white**, horse and clothes, and passes her by just at dawn, before sunrise, when the sky starts to get a silver color. The second horseman, all **red**, rides by just a little bit later, at sunrise. Then she walks all day and just when the night falls, the third horseman, all **black**, rides by, and disappears just at Baba Yaga’s house into the ground.

Baba Yaga gives an explanation herself later on.

Later on, Baba Yaga answers Vasilisa three questions, one about each horseman. According to her answers, they would all three be her servants, the white one would be day, the red one the sun, the black one night. Vasilisa is wise enough not to ask Baba Yaga about three pairs of hands that help in the house.

Now, what kind of goddess could possibly have six hands ?

Yes, a triple goddess. The Greek Hekate, both a goddess of death and a midwife, like also the moon goddess Artemis, is often shown as three women standing back to back (or sometimes just with three heads or faces). But let me ask how you would complete a sequence of supposedly four things that starts with: day, sun, night, . . . ? Yes, obviously with “moon”.

As soon as the black horseman disappeared, the eyes of the skulls on Baba Yaga’s fence of bones started to glow so much that her house was lighted as brightly as at day, which reminds immediately of a full moon. She later kills the step mother and the two sisters by creating a fire. This relates her also to fire, also in its ability to kill by burning.

Note that red for the sun in the middle might even explain while the sun disk in ancient Egypt would have been painted red, even though the sun is hardly ever red during midday. Maybe, just like in astrology, the sun would be defined by its color at its birth in the morning, hence often red ? I don’t know, but maybe.

See the Internet for statues of Hekate that are back to back at 120° angles, and note that at least the ones I have seen so far would be rather from late antiquity. In any case, goddesses seem to have appeared in triads already in ancient Greek mythology, and the brothers Zeus, Poseidon and Hades also form a triad, ruling over heaven, sea and underworld.

But back to Baba Yaga and maybe a crucial new element in this kind of reasoning, based on my many explorations around the classical elements, the main topic of my website at [exactphilosophy.net](http://exactphilosophy.net). This is where the actual “carving of the goddess” might really start. . .

The four elements in antiquity were water, air, earth and fire. Fire was a bit special in that group, as it appeared to exist both on the earth and in the sky, as sun, moon, planets and stars, i.e. as the lights (fires) in the sky. Aristotle introduced a fifth element that would essentially only exist in space, but not down on earth and move in circles.

Now, life can only exist in water, air and earth, but not in fire (except in mythology the salamander). So could Baba Yaga maybe stand for fire and the three horsemen for the other three elements? Seems a bit far fetched, right? But wait: Antiochus of Athens, who lived roughly in the 2nd century CE, attributed colors to the four elements, as follows: ~~water-white~~, **air-red**, **earth-black** and **fire-yellow**. That would be exactly the colors of the three horsemen, plus yellow for fire and Baba Yaga!

The colors of the four horsemen of the apocalypse are similar. The first three are ~~white-red-black~~, in that order. The color of the fourth horseman, "death", is usually translated as "pale". In the original Greek, it was *khlōros*, which stands for roughly for a pale or yellowish green, not unlikely referring here to the color of a dead person. It is also the root of *chlorophyll*, which makes leaves green and allows them to do photosynthesis. But back to that soon.

So, a "**green**" goddess, where green would stand for different colors from pale greenish almost white to golden yellow or the color of leaves on a tree? Yes, in a way, that would be the general idea, if only she would not resist in principle to have a well-defined color pinned on her. In that sense, of course ~~white-red-black~~ are her colors, too, as well as any other color.

But let me reintroduce the moon here, in a maybe astonishing way!

Remember the idea of a goddess or god that would govern the cycles of sun and moon? That would be Baba Yaga here: She is the boss over all fires in the sky and also over all fires down on earth. And also the other three elements (her horsemen) serve her. So she would be all fires and in command of all that moves, via the fire (energy) that makes them move.

And she would also be the moon, for the following simple reason: The sequence of day, sunrise and night is always stereotypically the same. Nobody has ever seen the sun rise before the sky started to light up or after the sun went down. Sometimes the sun is not visible at all, when hidden behind clouds, but I guess in places like ancient Egypt this was quite rare. But the **moon** can rise at any time, before or after ~~day~~, **sun** or **night**. Thus the moon is the boss of these three things. That the moon is in the end stronger than the sun also shows during a total solar eclipse, where it is the moon that darkens the sun, not the sun that outshines the moon.

Not much to add here. Of course, the moon can "swallow" all lights in the sky (astronomically, of course, because the moon is the closest object to earth). This would relate Baba Yaga also to Cronos in mythology, the god who swallowed all of his children (except Zeus!) and who dismembered and killed his father Ouranos with an instrument in the shape of a crescent, following instructions by his mother Gaia (earth).

Note, however, that once more the women appear to operate rather in the background, while men "officially" are in the positions of leadership and do some dirty work. Possibly really myths were rewritten, but at some point a few

concrete examples of clearly matriarchal myths from very long ago would be desirable. Fairy tales such as Baba Yaga might very well still reflect such times, but could a priori also reflect later developments or cultural differences.

Baba Yaga's house is often described as standing on chicken legs. So it is mobile, it can move, figuratively in the sky, like the moon. An ancient historian describes fire sacrifices of animals to Artemis at Ephesus (now in Turkey). The animals which Artemis hunts, rules and protects, are the zodiac, and other constellations in the sky. She, in turn, is reportedly, just like her twin brother Apollon, from Hyperborea, a mythical country rather north "beyond the North Wind", so maybe also hinting at the north pole in the sky around which all else rotates. The two constellations near the north pole are bears, which fits with quite a few things in the mythology around Artemis.

I do not feel inclined to look for sources around Artemis in detail at the moment, but this is at least mostly something that is quite widespread.

Now to another core insight, well, actually even the one that had inspired me to start the thread at astro.com in spring 2019.

But let me present the basic idea I have of the three aspects of the moon goddess and her three colors. They would *not* simply be the colors of the moon at night, but rather the colors that make the moon change its color, as the *energy (fire)* that is driving all changes.

The first phase would be the **white** goddess making a new moon bright again, towards a full moon. The second phase would be the **red** goddess around full moon, somewhat before and after full moon, and what makes the moon pregnant. The third phase would be the **black** goddess from sometime after full moon, making the moon dark again, towards new moon.

The reason the middle phase would be red would be the cycle of menstruation. At full moon the seed for a new child would have grown inside her womb, ripened, like a baby in the full, round belly of pregnant woman. If not getting pregnant, the seed for the baby would come out as menstrual blood (and the placenta) at new moon.

The first phase would also be a child or a maiden before menstruation, the second phase a mature woman who can have children, and the third phase an old woman, who cannot have children any more. Remember that the encyclopedia entry above saw Isis as at the transition from maiden to cow?

Just to make sure the idea got through:

- The **white** aspect of the goddess would be the *force* that makes the moon **white** (bright) again after new moon.
- The **red** aspect of the goddess would be the *force* that makes the moon pregnant (**red** blood inside) around full moon.
- The **black** aspect of the goddess would be *force* that makes the moon **black** (dark) again towards old moon.

I hope that by now some of the deep logic in these things is becoming clearer, even though, I guess, you should never take anything as an absolute truth around

these themes; there are always different views overlapping to some degree, for various reasons that can usually not be made 100% compatible with each other. This is, by the way, also why to a woman anything a man can say can only be a better or worse approximation of the truth, while coming close is usually rewarded, but I am maybe getting too poetic again.

A triad of maiden, woman and crone is certainly present in Greek myths, as well as in other places. The woman who cannot have children, yet, the one who can have children, and the one who cannot have children any more. Three women are, of course, also related to the Fates or also the Graves, the “gray” old women who share one eye. In ancient Egypt the eye of the falcon God Ra was one way to see the sun, which produces the light necessary to see, or maybe even for the moon to shine. As you can see, there are arguments pro universal goddess or god, but maybe still more pro universal goddess? But I am getting ahead of the story.

So three phases: Growth, ripening (or fruit) and withering. The mulberry turning ~~white~~-red-black, the elements water (the sea), air (heaven) and earth (also the underworld), over which a trinity would have ruled, in ancient times according to Graves a triple goddess with ever changing member goddesses, and later the male gods Poseidon, Zeus and Hades, for example.

But where is the **fire**, the light green color? Well, the mulberry first forms *catkins*, which are apparently often also slightly bent, like a reborn moon after having become invisible for a few days. So that color is both death and rebirth, which is why Artemis and Hecate were midwives. They have the power to create new life, or not, if they desire. And cats.

Since in astrology, birth is so decisive, defining the arrangement of the planets in the sky, which are her children or servants, it is not astonishing she is placed there, or rather the other way round, right at the secret of life. And, independently of whether men were in the past fully aware of their role in this, the first phase before a newborn can proceed from child to adult to old person, is growing hidden inside the body of a woman. The secret is mainly between catkin and fruit, not so much any more once the fruit is ripening.

I mentioned cats not as able to create life, although in retrospect I also do not dare to contradict that, but because cats with their eyes that resemble crescents and the activity at night, etc., are often related to the moon, and already were in ancient Greece. At least there is one myth in which Artemis turns into a cat, but maybe that was borrowed, like so many things in ancient Greek myths. In Egypt there was Bastet, while Hathor was maybe closer to the goddess, or Heqet, the frog goddess, which might be the origin of Hecate.

Aristotle put the four elements into a circle, which they follow when changing from one element to the other: fire-air-water-earth-fire-... Yes, this is not the order of the mulberry. But at least his proposed cyclic nature of the fifth element would confirm this picture: Fire in the sky, the fifth element, would be related to the cycle of four elements down on earth.

After all, if you have a cycle of four elements that starts with fire, the fifth element in the cycle is fire again! This is maybe also why Dionysos was first born from fire, when Zeus had to reveal himself to his mother in his true form, as lightning and burnt the poor mother Semele to ashes, who had been tricked by jealous Hera into this. After being woven into Zeus' thigh,

he was born a second time, this time not from fire, but from earth. Then he was cut up into pieces (similar to Osiris in Egypt) and cooked in water, the third element. Finally he was also stricken with madness, so, I guess, his mind reborn from air. That he often wore a lion's skin, might relate him to the fifth star sign in the zodiac, Leo, the lion, a fire sign, just like the first one, Aries, the ram.

Well, yes, once more a man in the center with Dionysos, although also with clearly female seeming themes. Astrologically, Dionysos is often related to Pisces, since at least Liz Greene, where there is often a mother-son thing going on. The constellation of Pisces is actually two fish, in Greek mythology the love goddess Aphrodite (Venus) and her son Eros (Cupid, Amor).

Anyways, I hope the idea that Aristotle sort of split the fire in the world into two fires got through: Fire down on earth as the regular element Fire, and fire in the sky that moves in circles like the planets and the stars and is round like sun and moon as the fifth element Aether, while in the circle they become the same again, except that the fifth element has more experience.

In the scientific article *Flowering and fruiting of cv. Pakistan mulberry under saline soil conditions in Egypt* by Ahmed A. El Obeidy (Fruits, vol. 60 (6), 2005), experimental introduction of a special breed of black mulberry on saline soils is described. The fruit of the black mulberry are apparently the best, but that is not what caught my attention: "Fruit ripening began in the second week of March and extended to the third week of April".

In the Czech tale around Libuše, the mythological foundress of Prague, the queen Niva and her husband Krok had three daughters, all with magical abilities, while the prophetic Libuše was the best of them all. Niva is the snow, winter, Krok the crocus flower, the first flower to start growing near the beginning of spring. The life of Niva was tied to an oak tree, which was guarded by Krok, so he was her servant. According to the Celtic tree circles found on the Internet, the oak tree would be the first day of spring (spring equinox around 21 March). Niva died when lightning (fire) hit the oak tree, and her youngest daughter, Libuše, became queen. That it apparently was the youngest daughter who would follow in reign, as opposed to the oldest son in patriarchal traditions, would show that she had absolute control about how many children would be born, making the youngest the most gifted.

Libuše used to give council and settle disputes sitting under a linden tree, which would apparently in the Celtic tree circle be responsible for two periods of time, including ten days before the beginning of spring, which is close to when the mulberries started to ripen in the paper cited above.

As it turned out, the "Celtic tree circle" I was referring to, is a relatively recent "invention" of French journalist and director Paula Delsol in the 1970s for the French women's magazine "Marie Claire" (see e.g. German Wikipedia).

Yet, placing the oak at the beginning of spring seems not arbitrary, nor is the mythological placement of the linden (lime) tree just besides an oak. In the myth of Philemon and Baucis, at the end of their lives, she was turned into a lime tree and he into an oak, standing close-by, because they had sheltered Zeus and Hermes in disguise in the past, while all other inhabitants of their village had refused that. This certainly also connects to Prague with the Gehry building colloquially called "Ginger and Fred": two houses that dance with each



other. The connection of the oak tree to the beginning of spring is a bit more complex to make, but maybe I will here, and I am quite confident that Paula Delsol considered quite a few things for the zodiac, considering that trees are historically important in France and, last but not first, she is a woman.

So, I consider the Egyptian scientific paper rather an omen that points into the right direction, the beginning of spring, in the past associated also with oaks in some places. One reason, by the way, might be that oaks are said to attract lightning more than other trees. Now, in the very distant past, before people knew how to make fire, practically the only source of fire was when lightning hit. So the trees that attracted fire were probably sacred (and dedicated to “Baba Yaga”) and preserving fire probably, too. Spring brings fire again (the sun).

Let me come back to some of this a bit later.

At some point in time, people no longer wanted a female rulership and asked Libuše to find a husband who would then be king and she his supportive wife. She said that they should look for a young farmer with just one shoe in a certain region. And, yes, they found such a farmer, be it because she actually was prophetic or because she thought that a poor, young farmer would make a good lover and probably not be too smart (else he would have had a second shoe and not be a farmer), so that she could easily direct him as king.

The lost shoe refers also to the last star sign in the Zodiac, Pisces, the fish, associated with the feet in the human body. It also refers to the sandal that Perseus lost when he helped Hera, disguised as an old woman, to cross a river by carrying her on his back. In ancient Egypt, the dead were buried on the western side of the Nile, where the sun sets. So, crossing the river would also be both death and rebirth by grace of the great goddess.

Let me just add that this is all retold from memory, like in old times; feel free to research the original tales, and so on. All in all, in Czech culture there is still quite a bit of the goddess, in my experience.

As Robert Graves also essentially writes, not long after the initial quote on top of this text, the single best reference to the “white goddess” is Apuleius’ *The Golden Ass*, a Latin text from roughly the 2nd century CE. Before going into some of the content of the book, let me simply quote how Isis describes herself to Lucius the night before the beginning of spring when she appears to him at full moon at the beach, rising out of the sea, like Venus in Greek mythology or arguably her “hill” as the first earth out of the primeval sea Nun in ancient Egyptian creation myths.

A shining disk hovers above her head, which Lucius interprets as the moon and thus that she is a goddess of the moon. Her clothes are described in great detail: **white**, **crocus-yellow** and **red**, plus a **black** mantle on which there are the stars and a full moon, and flowers and fruit on the hem.

She says this to Lucius:

*[...] rerum naturae parens, elementorum omnium domina, saeculorum progenies initialis, summa numinum, regina manium, prima caelitum, deorum dearumque facies uniformis, quae caeli luminosa culmina, maris salubria flamma, inferum deplorata silentia nutibus meis dispenso: cuius numen unicum multiformi specie, ritu vario, nomine multiiugo totus veneratus orbis.*

Impressive, right? Oh, you don't speak Latin? Neither do I, but I read several translations, including the one by Robert Graves, and ended up with this translation to English:

*[...] mother of nature, all encompassing mistress of the elements, first progeny of the times, highest power/deity/queen, first/best (sky) deity, uniform face of gods and goddesses, who dispenses over heavenly, shining summits, salty sea breezes [and] the dead down below in earth, which are silently weeped. A single/unique goddess in multiple shapes, with changing rites, many names, worshipped all over the world.*

This brings it all together, the colors and rulership over air (heaven), water (sea) and earth (underworld), and the moon, as well as the beginning of spring. Why exactly spring, here and around Libuše? Well, simply because that is again where the goddess lives, at the point where the cycle both starts and ends, beginning of the year, new moon and catkins.

Yes, impressive, quite up to the point, including timing at the beginning of spring, and full moon, which would relate this to Easter or Pesach or other festivities at that time, likely at least back to times when Taurus was the sign rising with the sun at the beginning of spring.

And, once more, the approach in term of the classical elements seems also to carry quite far.

Now, female readers, please be prepared to be shocked at first by the crude theatrical pun below. I will explain it in quite some detail subsequently, but maybe only after you "passed out" and regained consciousness. Be warned.

Before describing the story of the golden ass a bit in more detail and relating it to its times—in maybe quite surprising ways—let me dive a bit into lesser known waters, quite speculatively, or so it might appear at first...

Baba apparently simply means an old woman or grandmother, but there was an ancient Egyptian god Babi or Baba (the ancient Egyptians only wrote consonants, but not vowels), a baboon god especially known for his large, red genitals, which even served as a mast on the ship in the underworld. Like the Apis bull, Babi was already present in the first Dynasty (before 3000 BCE). There is apparently an image that shows the pharaoh with a white crown running first in front of a baboon, then behind or besides the Apis bull.

Sure, maybe just a coincidence. But then I remembered the Greek Baubo who showed her genitals to Demeter, who was weeping about her lost daughter Persephone, who Hades had abducted into the underworld. This cheered Demeter up, probably reminded her of her unique power to create life. So, again a reference to genitals and a similar name. Almost the same story appears also with Hathor showing her genitals to her father at some point, where he was angry about the process between Seth and Horus about who should be pharaoh that took 80 years to settle. This is why daughters even today still show their genitals to their fathers when fathers are feeling blue... – just making sure you are still reading attentively, this is not a serious suggestion from my side.

Now, about that comment about daughters and fathers today. There is a lot more attached to it than it might appear at first, in the end maybe even the question if you are really ready for a less patriarchal society or not.

My assumption was that Baubo was an adult woman. So she is in principle (within the bounds of contemporary laws at the time) free to do whatever she pleases, she does not have to ask anyone for permission. She decided to reveal herself; she was for all that it appears not forced at all by anyone to do so. Plus, what she did apparently had a benign effect on the whole situation, so one has to admit that she possibly had more insight into the situation than the men involved. Also, her father did not see this as an invitation for sex, for all that it appears. (I have not seen the original sources, so I cannot be completely sure about that.) Now, had Baubo been a teenager or a child, the situation would have already been different. Then she cannot decide freely, then her parents are automatically involved, should decide if that is appropriate. Considering that there is at least in current times still often abuse by fathers of underage daughters, the association is of course not far here. And there is also sort of the opposite case, where daughters have a hard time to mentally separate from their fathers once they are grown up, because they had fallen in love.

But let me look at the whole affair from a different angle. As far as I know, at least the catholic Christian view on menstruation would have been that women bleed every month as a punishment for Eve having tasted the apple (resp. whatever fruit that was, more likely a pomegranate or a mulberry, etc.) and thus Eve and Adam were evicted from paradise. This is the catholic *original sin*, i.e. that being a woman and especially when doing anything sexual makes women guilty. (Then again, not having everyone running around naked all the time is also something I personally welcome.)

Now, if you are really a feminist and not bound by the *original sin*, there is nothing “wrong” in what Baubo did, assuming she was an adult and doing this on her own initiative. And, yes, the matter does even then remain somewhat ambivalent; being a woman will, I guess, forever remain complicated.

So, I am not in a position to suggest anything, just providing a few insights that may help in some way to find better ways in the future to deal with Fate.

Now, Hathor is often a cow goddess, I guess even was before Isis got that role, too, but it is often very hard to tell things apart with certainty regarding ancient Egyptian gods and goddesses, maybe because the culture evolved across several millennia, or also because it is said that they all could transform into each other or, of course, into all kinds of animals.

As far as I remember, there was the notion in ancient Egypt at some time that the whole sky was a cow, which would also explain, where the milky way came from. So, be it the path of the sun during the day or the one of the moon at any time, it would always cross the universal sky goddess as the whole sky.

I am not sure where I read that about the whole sky as a goddess, but maybe it was somewhere in Garry J. Shaw's *The Egyptian Myths*. In any case, the sky as a cow would explain the Milky Way in a natural way, as being the milk produced by the cow as the sky. See also images with the nude Egyptian goddess Nut as the sky, in profile (what else?), happily smiling on all four.

But is it certain that this was always or originally a cow and not a bull? Apis is a bull, and the sun god Re is male, too. For example in Theban tomb TT359, Re is shown as some kind of cat (but curiously also resembling a

rabbit) in **yellow**, slaying the Apophis snake in **white-red-black** with a **red** knife.

This reminds me of the cover of the music album *Haus der Lüge* (House of Lie) by the band *Einstürzende Neubauten* (\*1 April 1980, Moon club, Berlin), which would be in a way a male “bull” variant of the image with Nut as the sky.

That “rabbit” might actually really have made it to become the Easter bunny. See the bunny beheading a man on manuscript “Royal 10 E IV f. 61v” in the British Library, which is of French origin. Possibly someone in the past misread a depiction of Ra as a cat as a rabbit, I would suspect.

Well, maybe the “Gretchenfrage” is a bit different. Women are more cyclic than men due to their menstrual cycles, and they are physically rounder, with their breasts, and overall more curvy than men. This would relate them more directly than men to things that go in circles, like lunar phases, seasons, planets in the sky, and so on, and also more to round objects in the sky like sun and moon. So, yes, this would apparently mirror women much more than men.

Now, this does not automatically mean that women would rule this. In a patriarchal society, men rule over women, so why not also about anything female, like sun and moon, and all that motion in the sky?

Well, this is maybe also not the question, rather: Should men do that, can they do that? I would say rather not, but, of course, they can and should provide input to consider, ideas, do stupid but loveable things. But, all in all, I guess this remains a matter that also causes a lot of pain, besides also often a lot of fun, sometimes closely interlocked. But actually I do not feel like I am a good person to make judgements like these.

I hope I got maybe quite close to a truth here. I would assume that women in the past were maybe not all that more active than today, also given the different anatomy, where men are more designed for hunting. But, and I think this may be true, women might well have been more respected as equals, resp. superior in some aspects in the past, and even if not, this is how it should be now.

This is not a conclusion, just a personal opinion, or only a wish.

But back to *The Golden Ass*. It was written in about the 2nd century CE, as already mentioned. Now, since about 103 BCE, the star that rises with the sun at the beginning of spring is in Pisces, when presumably the astrological age of Aries was replaced by an age of Pisces. The first star of Pisces is Alrisha, the knot, and probably also symbolizes birth, as it is part of the (umbilical) cord that connects the two fish that constitute the constellation of Pisces. These two fish are usually seen as mother and son, with old roots. In ancient Greece, they were Aphrodite (Venus) and her son Eros (Amor, Cupid).

It is also Aphrodite that gives the pregnant Psyche four tasks, in the fairy tale in the middle of the book, told by an old “Baba” at night in a cave. The four tasks are clearly related to the four elements and all have to be solved during a day. See my book *Elementary Star Signs* for an—arguably often quite bourgeois—exploration of these tasks and a model that would describe the 12 star signs of the zodiac as transitions between the four elements.

Yes, just see my book. And, if you ever find a hint that relates the four tasks to older Egyptian roots, I would be very happy to hear about it. So far my only lead is that Seth once held Isis (and Nephthys) hostage in the spinning house at Sais and would give her tasks every month. Note that this would again suggest an “identity” of days and months, as in Apuleius version each task of Psyche has to be completed in a day, between sunrise and sunset.

Psyche is, like later Snow White, the most beautiful woman on earth. Hey, remember that in Grimms’ version of Snow White, she is described as having snow **white** skin, pitch **black** hair and **red** lips, related to her mother hurting her finger while sewing and her blood dropping into the snow, her window enclosed by a black wooden frame? Frau Holle (Mother Hulda) was apparently (as \*Momo\* noticed) also described as travelling across the sky in a chariot pulled by lady beetles, which are, yes, colored **white-red-black**.

But, hey, why don’t you read *The Golden Ass* yourself? Graves’ translation is very easy to read and there is so much more in it than I could ever summarize, from the theater prank they play on Lucius, via his transformation to an ass by a woman with magical skills, his dinner at the place of Artemis/Diana, and so on, and so on. Let me just mention where he mainly lived: Egypt.

In any case, the time frame also screams “beginning of spring”. So, is all of that maybe just self-confirming? That was also a time in which Christian religion arguably wanted to sort of unify the various pagan cults into more or less a single deity, in that case a male one. This was also the time in which the Mithras cult that included slaying of a bull was having quite a few followers. So, is the “white goddess” Isis in *The Golden Ass*, who actually rather wears black plus other colors, just a child of her time, nothing that was before or even much after that? Apuleius just one of several priests messiahs back then?

Just to make sure you don’t miss this: Was Isis in Apuleius’ book maybe simply the female version of monotheism, possibly rather an invention of that time, synthetic Pisces, than something that was once a reality almost everywhere in the world? Could be, but is probably not the whole answer, see above.

And just below, of course.

Well, as always around the great goddess, or around women, in general, the answer is a bit of both, but quite specifically. She does embody all that is female and which had been there before, in all kinds of cults, but possibly none of them combined all of that so synthetically into all stereotypes at once? Yeah, sure. But it is true that Pisces are generally seen a sign that is good at synthesis, as opposed to Virgo, who is rather analysis, seen as taking things apart in order to see how exactly they related to each other. Both are considered female signs in astrology, and there are four more female signs. So, all in all, only the carpet of associations is what creates the complete image.

Let me just leave it at that, just follow all the leads I showed and copy my approaches to these themes, which, of course, also resemble the ones of Robert Graves somewhat: Partially careful and precise research, partially poetic, synthetic intuition. I would add, that in the end it should all not be taken all too seriously, because ruling over it all in the end often is.

My conclusion is largely all the associations I made, then hints for more I provided, the few original new ideas I brought in, and the few tentative conclusions I suggested, nothing more, I guess. I hope this will help in many ways, and do no real harm. This is not the end of this text, yet, because had I written some additional notes and sources, plus a postscript, in the original text.

Let me just note that in the end, as I will just show, the similarity with *The White Goddess* was partially only a temporary phenomenon; I will likely not continue to collect fact after fact about these things, even more so since modern technology plus many people researching can do a better job than me.

In that sense, my main contribution is rather related to *elementary* things. Besides, I am doing this in my spare time, nobody is paying anything for this.

■ Adliswil, 14 April 2019, Alain Stalder

I am writing the first version of this text a bit more than a week later, with Uranus still in the 3rd degree of Taurus, but read on first.

### Notes and Sources

This text was written on the late afternoon and evening of 13 April and the relatively early morning of 14 April 2019. Similarly, Graves wrote *The White Goddess* in a very short time, starting sometime in early spring. In 2019, Mercury went retrograde around 5 March at the end of Pisces, and is only in a few days going to return to that spot, so this gives me some time to collect a few more facts and sources here.

I can only say that writing the original text and also very often the online discussions up to that were a ~~lot~~ **of fun**, really satisfying, I would hope I could write more like this. In contrast, this secondary text was already less fun, partially still felt very good, but often already smelled more like work.

Robert Graves' northern lunar node was in the middle of Pisces, which may explain his approach. This is also where Neptune is now, or my natal Lilith or maybe the sun of someone implicitly mentioned before. My Saturn is in the last degree of Pisces, where Mercury had gone retrograde, as already mentioned.

Did you know that Robert Graves was briefly a professor in Cairo (Egypt) between January and about June 1926? Along with his wife at the time, Nancy, and their children, the young poet Laura Riding came along. In 1929 he separated from his wife, wrote *Goodbye to all that* in a few weeks and then the whole story with Laura Riding took really off, which arguably was a main source for *The White Goddess*, and so on, not to forget Beryl (or Rosaleen).

Robert Graves' life and especially also the life and work of Laura Riding could certainly reveal more, as well as, of course, other women, etc. in his life around *The White Goddess*. I guess the avantgarde impulse that lead to the book was besides his Irish roots not least due to Laura Riding. Or more. Then again Beryl reminds of "berry", and again so many women's names are related to plants, like Rosaleen, or Laura to laurel: according to Robert Graves in the past chewed for its effect and then became the crown of victors in contests and of kings and emperors. Laurel has also berries that are black in the end. And a

crown also reminds of the corona during a total solar eclipse, when the moon totally swallows the sun, except maybe the crown for the next king.

Francesco Petrarca, who is often seen as one of the first voices of the Renaissance, had a similar birth chart as Robert Graves (or me) and some day he met a woman called Laura who became his lifelong inspiration, even though they never had a relationship. I guess you cannot have a relationship with the goddess anyways. (And no, in my case her name was not Laura at all.)

Let me just copy the rest of the notes and sources.

Well, for sources, just ask Google. Some information is, of course, from Wikipedia. Did you know that Jimmy Wales, one of its founders, was born the same day (in the same year) as me? The notion of offering all this for free and without ads is something that I can relate well to. But still, of course, it would also be nice to mention those sources explicitly. Conversely, I had more than once the impression that some information in Wikipedia had been obtained from original sources that I had possibly mentioned first on the Internet and others had googled and then worked into Wikipedia.

Hey, this has nine pages, an Ennead? Uranus is in Taurus, which might explain all the bull/cow symbolism, ~~white-red-black~~?

Thanks a lot for reading! And see my website ([exactphilosophy.net](http://exactphilosophy.net)) and the Astrodienst ([astro.com](http://astro.com)) forum for more, if you want.

Frozen except possibly tiniest formal fixes Sun 14 April 2019 near noon.

*Egypt in Transition: Social and Religious Development of Egypt in the First Millennium BCE*, eds. L. Bareš, F. Coppens and K. Smoláriková, Prague, 2010.

I am pretty sure, the text will not be modified any more, also since I wrote this, so that if someone wants to criticize the original text (or this one), I can reply maybe here, but hopefully will not have to touch the original document.

The Czech book mentioned at the bottom possibly contains quite a few hidden jewels that would not be easy to find otherwise, which is why I listed it.

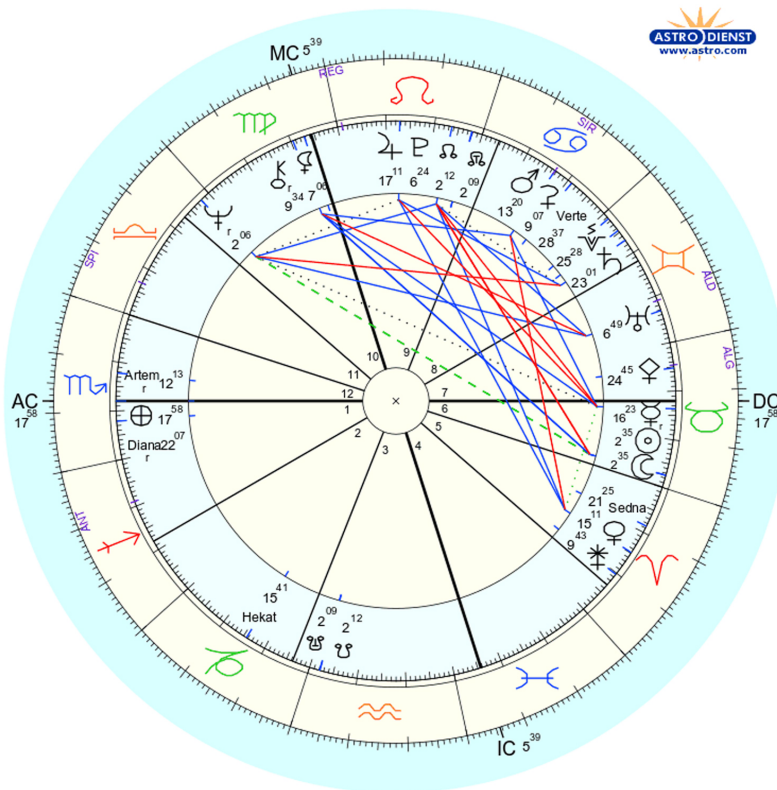
### Postscript 18 April 2019

A few days later (17 April), I researched when Robert Graves started to write *The White Goddess*, mainly in Richard Perceval Graves' *Robert Graves and the White Goddess*, near the end of chapter 4. According to that, he would have started sometime after Easter 1944, which was 9 April, and after "making serious headway" with his maps for *The Golden Fleece*, but "could not get out of his head some lines from Alun Lewis's last letter" (died 5 March).

What would be a better moment to start a book about the white goddess, if not a new moon, the beginning of a new cycle, with the first part her own? New moon was Saturday 22 April at 22:43:23 in Galmpton (Devon). The new moon was at 2° 34' 41" Taurus. Now, the 3rd degree of Taurus is where, according to Ptolemy, the moon is exalted. Earlier that day (around 2 AM), Mercury had gone retrograde for almost three weeks; Robert Graves writes that he wrote the first version in about three weeks. An archetypal female lunar cycle would be three weeks of activity, followed by one week of reorientation.

That is why the three colors of the cow came up, and, Hermes (Mercury)

stole 50 cattle from Apollon in the *Homeric Hymns* by walking backwards, just like Robert Graves in the book. There would be more details, but... wow!



Uranus is in the 3rd degree of Taurus since last Saturday 13 April at 19:45.

Thanks a lot for reading! And hopefully this will be helpful in some ways.

Yes, it would be possible to write on and on about this, but I prefer to do this not all to myself, except punctually. My focus as a physicist is mainly to provide fundamental new ideas, also related to such topics, and I hope I did.

Otesánek, Valley of the Bees (Údolí včel), Torchbearer (Světloňoš), Morgiana, Marketa Lazarová, Adelheid, Lunacy (Šílení), and more Czech movies...

Ah, trees. The Czech word for the month March means "birch", a tree that is black and white and bleeds red resin. The Danish word for the same month is related to Frau Holle (Holunder is the elder tree, again black berries), see also Jacob Grimm's book about German mythology. Or clover as a symbol for the trinity; male as in Christianity, or with the heart shaped leaves as some round parts of the bodies of the triple goddess, a bit like the "mulberry" around the chest of Artemis at Ephesos. The Sabian Symbol for 3° Taurus (2°01'00" - 3°00'59") is "steps up to a lawn blooming with clover"; not bad, Elsie Wheeler and Marc Edmund Jones, for a single day in Balboa park (trees!) in San Diego. Are Balboa, Baucis and Baubo related to the German word for tree, "Baum"? Maybe. Keep going, if you like. Good luck in any case!

The end was kind of fun again. :)

And, maybe unavoidably, largely written in just one day.

I guess, I would simply write another text, if ever necessary.

Alain Stalder (\*1966)



## Later notes

- Ptolemy only writes that the moon is exalted in Taurus, but does not indicate a degree. Vettius Valens, his somewhat younger contemporary in the 2nd century CE, does, in *Anthology*, book 3, chapter 4:

Τούτων οὕτως ἐχόντων δεῖ καὶ τοὺς ἀνέμους ὑποτάξαι· πρό-  
τερον δὲ δεῖ σκοπεῖν, ἐν αἷς ἕκαστος μοῖραις ὑψοῦται· ἐκ γὰρ  
τούτων ἡ διάκρισις γινώσκειται. ὁ μὲν οὖν ἥλιος ὑψοῦται περὶ  
μοῖραν ιθ' τοῦ Κριοῦ, ἡ δὲ Σελήνη περὶ τὴν τρίτην τοῦ Ταύρου,  
ὁ δὲ Ζεὺς περὶ τὰς ιε' τοῦ Καρκίνου, ὁ δὲ Ἄρης περὶ τὴν κη'  
τοῦ Αἰγόκερω, ὁ δὲ Κρόνος περὶ τὴν κα' τοῦ Ζυγοῦ, ὁ δὲ Ἑρμῆς  
περὶ τὴν ιε' τῆς Παρθένου, ἡ δὲ Ἀφροδίτη περὶ τὴν κζ' τῶν  
Ἰχθύων. ἐν δὲ ταῖς διαμέτροις μοῖραις ταπεινοῦνται. τὸ οὖν

Note that the number of the degree is described as *tritēn*, which is, I guess, *tritos*, third, as opposed to *tría*, three. So he might actually say '2-3° Taurus', as opposed to 'around 3° Taurus'. The origin of exalted signs and degrees is unclear.

- The following passage in Empedocles' poem *On Nature* is often considered the first mention of four elements in history:

τέσσαρα γὰρ πάντων ῥιζώματα πρῶτον ἄκουε·  
Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἠδ' Ἀιδωνεύς  
Νηστὶς θ', ἣ δακρύοις τέγγει κρούνωμα βρότειον.

Would this maybe list the three aspects the goddess in her colors, followed by the goddess herself, on her own line: Zeus as white gleaming (white, day), Hera as pregnant and life bringing (red, sun), Hades (black, night), and Nestis (moon)?

Note that the *The White Goddess* is subtitled *A Historical Grammar of Poetic Myth* and starts with "Since the age of fifteen poetry has been my ruling passion and I have never intentionally undertaken any task or formed any relationship that seemed inconsistent with poetic principles [...]". The book is also quite a bit about trees (and their alphabets), which would relate well to Empedocles using the word *root* for the four things he lists. So, apparently a similar context.

Could the poem also help to clarify the relation between the ancient Egyptian divine siblings Osiris (black?), Seth (red), Isis (white?) and Nephthys (color?), etc.?

- The Greek names of the colors of the Four Horsemen of the Apocalypse in the bible (Book of Revelation) are *leukós*, *pyrrós*, *mélas* and *chlōrós*.

*Leukós* and *mélas* would apparently have come very close to what is today called white and black, respectively, but *leukós* also includes the notion of a shining color, of light, of brightness, and similarly *mélas* includes the notion of darkness. *Pyrrós* is literally the color of fire and apparently could mean red as well as yellow, and, I presume then possibly also colors in between, like orange. This would apparently come quite close to Baba Yaga's description of the three riders as day (bright, white), sun (red/orange/yellow) and night (dark). As mentioned, *chlōrós* would apparently have been something roughly been light green and light yellow, with also the notion of shining, which would apparently fit the moon quite well.

This seems to imply that in ancient times the sun would not have been recognized as what makes it day, but instead as simply rising shortly after the day began. The sun would have been just one of the many bodies that move across the sky, as the moon can also be seen at daytime, as well as some planets around sunrise and sunset. This view is also not entirely wrong, as night and day are also due to the rotation of earth.

Since the moon can temporarily "swallow" all other planets, even the sun during a total solar eclipse, it might not be far fetched to link the deity that is at the origin of all motion in the sky with the moon, also since the phases of the moon might seem to imply full control over light and dark, thus also over day and night.

- The three colors in ancient Egypt may have essentially been as follows:

~~Isis white~~ – The water of the Nile, milk

**Seth red** – The desert west and east of the Nile valley

**Osiris black** – The fertile Nile valley

In the prehistoric past, the earth of the Nile valley (Osiris) would have been fertile after the annual Nile flood (Isis), but would have dried up afterwards. The desert (Seth) would have killed the vegetation (Osiris) and also broken up the ground into a mosaic when drying up, as in mythology Seth killed and dismembered Osiris. The return of the Nile flood (Isis) brought back life, as water and new black sediments, just as Isis brought Osiris back to life with her “magic”.

I guess, as soon as people learned how to irrigate the land, drying up became less of an issue, but the new sediments every year were still required as fertilizer.

This is certainly a somewhat incomplete picture, for example without the “sun/falcon” as Ra or Horus, and so on. All in all, there appear to have been many variations and transformations between deities in ancient Egypt over the millennia.

- See this absolutely stunning article by the Ethiopian “Shakespeare”, Tsegaye Gabre-Medhin: *The Origin of the Trinity in Art & Religion: Ethiopian Roots in the Egypto-Greek & Hebrew*, on page 99-120 of *African Origins of the Major World Religions*, ed. Amon Saba Saakana, Karnak House, 1988.

The trinity as KaBaRa (in Ethiopia also HaBaSha and KaBaSa), with Osiris-Ka and Isis-Ba and Egypt as Kamit (black land), as well as the trinity “like a single sacred tree (like the Adbara or Baobab)”, and as roots of the Kabbalah (KaBaRa) or Osiris as Moses and others in similar myths—to just mention a few jewels in the article.

Reminded me also of the song “Shakara” by Fela, with Sha maybe related to the god Shu (day?). At a concert in the 1980s in Zürich, Fela spoke first at least 10 minutes about colonial influences related to Greenwich, which he called also “green witch” then. He had come with his band at the time, Egypt 80, plus his about 50 women, who acted also as singers and dancers, usually in unison, more like a choir. I even found a baby basket in white-red-black called “Shakara” online today, advertised with mention of Moses, which leads all to the themes of “Artemis/Hecate”, including theater, midwife, and so on.

All in all, I guess Robert Graves and Laura Riding picked up that “beat” during their relatively short stay in Egypt.

Let me call this implicitly part three of this “ode to the goddess”; anything more would maybe follow in a new section here, if absolutely necessary. Today is 30 April 2019, the last day of this period with Uranus in the third degree of Taurus.

Let this suffice, respect the goddess, I would say, close to new moon...

### Meta review

Do you know the story of Zhuangzi and a friend contemplating fishes in a river and him concluding they are happy because he is while watching them?

Writing this document—and the one it cites line-by-line—last year with Uranus in the third degree of Taurus was probably the most fun and satisfaction I ever had writing something for the public, and even privately only surpassed by a series of messages about in a way the same themes, about eight years earlier with Uranus in early Aries. I have no certainty whatsoever to what degree the things I wrote would be “true” in any particular sense. Cynthia Eller wrote a book called *The Myth of Matriarchal Prehistory*, plus another book about men in history attached to the myth. A myth is something that people continue to tell each other over generations because it feels important and deeply needed to do so. People did not keep doing so because they consciously knew it was “true” for this or that reason. Men used to tell this myth, then feminists, and now in a way even me as a physicist with likely one of the broadest and deepest overviews of these themes in the time I am living in. That must amount to something, in some way, independently of whether I or you may be able to grasp “why” in any analytical way. Not long after writing the previous pages of this document, I assembled the ‘definitive version’ of my writings at [exactphilosophy.net](http://exactphilosophy.net) in the third book about it, *exactphilosophy.net 2019*. After that I felt a lot of drive gone that had sort of ‘pushed me’ in public areas during my life.

Today 25 January 2020, Uranus is again back in the third degree of Taurus, actually since Friday 13 December 2019, which is also when my mother started to die and did so about three weeks later. In retrospect things probably evolved maybe as smoothly and harmoniously as one could ever hope for in such situations, at least I feel thankful despite the loss. That is not to say that all this is directly related to my mother (also not astrologically), even though it must have been important also to her, also since my MC is in Aries with the moon there. In psychological astrology the MC is most often the wish of the mother, and the moon normally stands for the mother. Then again, moon stuff is usually also a collective thing, and the one I mentioned many times has the moon in Aries, too, feels to me most likely close to my moon and then likely closer to my MC than my own moon. Plus there were and are more women. Thank you all.

By the way, the name Cynthia, as in Cynthia Eller, is a surname of Artemis, related to the mountain on the island Delos where she and her twin brother Apollon were born by Leto. And in Chinese Eller is, I suppose, written the same as Alain, related also to the Artemisia plant in Chinese. But who knows. . .



## Epilogue

The Suda entry for *Io* (quoted early on) listed the changing colors of the cow in the order “~~white~~” - “**black**” - “**violet**”:

The first color would be “*leukós*”, white, the second color “*melania*”, black. I could not find the third color in online dictionaries so far, but at least it was very likely neither black nor white. Pity, but let me move on.

Yesterday, I found a hint at that color “violet”. The Greek word in the Suda was *ἰάζουσαν* and I found dictionary entries for *ἰάζω* in *Handwörterbuch der griechischen Sprache* by Wilhelm Pape, 1914 (online at [zeno.org](http://zeno.org)).

This gives two meanings, “to speak Ionian, to act like an Ionian” and “be the color of a violet, to shimmer in dark blue”. Ionian is, of course, not far-fetched for a dictionary entry around *Io*. Note also that the word *ἰάζω* reminds me of *ἰάσων* (Jason) and thus of the map of the Argonauts’ journey that Robert Graves was drawing shortly before starting to write *The White Goddess*:

According to that, he would have started sometime after Easter 1944, which was 9 April, and after “making serious headway” with his maps for *The Golden Fleece*, but “could not get out of his head some lines from Alun Lewis’s last letter” (died 5 March).

I have not investigated much further, but feel free to do so. In any case, the Suda is a relatively recent source, so things *might* have been mixed up.

The color **violet** may also be related to the image of mulberry, as its juice colors skin violet, a color human skin also takes on after a person died (except where the body touches the ground). Violet would thus be related to death, of humans and figuratively of mulberries. This may even relate to the purple robes of ancient rulers who might thus have been marked by the goddess, if thinking in the line of Robert Graves in *The White Goddess*, etc.

Ancient cults around trees might have involved basic alcoholic beverages made from berries. In ancient Greece (red) wine diluted in water was believed to make less drunk if drunken from a cup made of **amethyst**. This relates also to Dionysos, the god of wine, who was cut to pieces, similarly to Osiris.

To wrap things up, let me just note that there were way enough coincidences around writing this document to make this a habit (c. f. the respective speech Robert Graves gave in 1957 in New York). So, all in all, there must be something to all of this. What exactly is not entirely clear to a conscious reasoning mind, but all in all most likely “the moon” would still fit symbols best.

And don’t miss my work on elementary star signs, collective unconscious beings and the 4+1 elements in terms of space (in/out) and (rest/move), nor Jack Daw’s upcoming book *Elemental* that is bound to wrap it all up.

Adliswil, 12 February 2020

A week later sadly (to me) my father freely joined my mother on their last journey.

This relates maybe, due to the birth chart of my father, quite a bit to **purple** as the color of Zeus and rulers in general. You might also want to look at the corrected Combin / Davidson chart for my parents (Suzy 25 April 1939 00:30 Couvet CH, Romeo 1 May 1936 23:35 Bern); note e. g. the AC in the middle of Leo and Saturn at the end of Pisces in the 9th house. And with slightly different birth times than in their BCs, as maybe not unlikely in the case of my mother, their combined MC might even have been in the third degree of Taurus...

## Closing Circles

The Chandogya Upanishad, one of the oldest Indian Upanishads (around 700 BCE), lists three colors “of fire” at 6.4.1, in the order red-white-black, and attributes them apparently to fire, water, earth, in that order. Now, the word used for red, **rohitam**, also denotes a female red deer, as well as Rohini the red star Aldebaran, one of the eyes of the bull in the constellation Taurus.

In ancient Greece, deer were sacred to the moon goddess Artemis, and the first version of Robert Graves' *The White Goddess*, the one he wrote after that new moon in the third degree of Taurus in 1944, was titled *The Roebuck in the Thicket*. Sounds also quite Egyptian, with Orion and Taurus and Pleiades close in the sky, and related to spring in the Age of Taurus, when the pyramids were built and the Pharaoh used to run with the **white-red-black** Apis bull in spring. In a triad Isis-Seth-Osiris the only woman would be Isis and she would stand for white, so the final title of Robert Graves' book would appear accurate.

Still no proof, nor anything like complete clarity here, but a lot points towards Taurus, moon and very ancient rather female roots. . .

I am aware that this is in some sense an incomplete and maybe unsatisfactory ending to this text. It makes no sense to try to outrun all of the world's historians here and now—time can do that much better than me. Gives me more time for fundamental research, which may please the goddess even a bit more. . .

Hail **Artemis**! + 🦋

## **Bonus: Simple Narrative**

Fire made a big difference to our human ancestors in the very distant past. It brought light and warmth to the night, as well as grilled and cooked food. It has even been suggested that grilled meat allowed early humans to develop larger brains, hence fire would have brought more intelligence.

The colors of a fire are the black of coal, the red-orange-yellow of flames and the white of ashes. Presumably fire was first obtained where lightning struck and caused a tree to burn, or something similar. Trees that seemed to attract lightning more than others may have been sacred.

Maybe even more if they carried berries that ripened in the colors of fire, white-red-black, like mulberries, or other berries.

Sun and Moon, as well as planets and stars were likely associated with fire from early on, simply because they shine. And their boss may have been the sun, because it shines most strongly, or the moon, because it can shine during day and night, and even darken the sun during a total solar eclipse.

Possibly more likely the moon, in the end, even though it appears that in ancient times people were initially not consciously aware that the moon causes solar eclipses, as the moon is invisible then, around new moon.

Why the bull and Taurus, and more, is harder to say.

(This simple narrative may be wrong, of course, but might still be useful as a starting point for looking further.)

## Bonus: Relax

The world is complex, or at least seems complex.

Simple things like colors and other first experiences like mother and moon are hard to ever analyze.

Simply because doing so would require more abstract concepts that naturally come after the basic ones.

If I had been a girl, my parents would have named me **Indigo**; (Alain 7 August 1966 04:12 Zürich), with the idea of probably more ultramarine than violet; I guess for some things you never find out the reason(s). They both had the sun in Taurus. Looking back at Chinese ink paintings I made in early 2019, in retrospect one could already see that their end was coming. I was just too afraid to see it, I guess; at least I wrote this text then. They were both so dear caring parents. Hmn, dear and deer... So sad.

Almost nobody ever read this document as I am adding this note, but that will come, and many people will love it, I hope. Just to have made things worth doing in a way.

But relax. And create a few beautiful things. Any color ;)

(19 March 2020: I guess “Artemis” was the big theme in the 2010s, which is also why this seems to have come to a conclusion in that form when the 2010s ended and the 2020s began, while, of course, in a way, the theme is omnipresent in every time. Take care.)

(Overall the theme of ~~white-red-black~~ seems to be more female than male, but maybe that was, partially is, and maybe will be by definition mostly **unconscious**; note the pun on **green** (khlōros), so prominent in nature and, yet, so late in languages. So maybe also this article should have included triple moon goddess in its title? Moonly does.)



(Late April 2020, some time after a new moon at 3°24' Taurus. New findings, every cycle brings new ideas and insights or experiences or expressions. No color(s) without light, hence initially white (bright) and black (dark) plus the color(s) of light resp. of a flame (red-orange-yellow), water-white and earth-black because water is transparent and earth intransparent, which would all, by the way, be interesting insights into how archaic minds worked. Menstrual blood is often already a bit oxidized when seen, which would match the somewhat darker red that was apparently meant with ‘red’, and, of course, relate to the moon. See the main content of my web site for more, in your time, Jessica Hemming’s articles mentioned there, which provided part of the inspiration for the above new findings. But first still someone has to read this—likely for quite some time to come, maybe many moons, nobody has...)

(Deer would be sacred to Artemis because their antlers are like fire.)

**Postscript** In April 2021 I heard of a woman in Germany who had lost all sense of smell/taste already at Xmas 2019, slept practically three days, no fever, no other symptoms; and there appear to have been at least a few more such cases. So my mother possibly got something similar to COVID-19 already 13 Dec 2019, since at least later waves propagated essentially from South to North. She hardly ate or drank anything, had no visible symptoms, no fever. She just said she was not hungry at the moment and would eat later. In retrospect this could have been related to a loss of smell and taste as with Corona. Diagnosis had been a bacterial infection of the brain stem, but I am not sure if ‘bacterial’ was specifically confirmed and ‘viral’ excluded. It is known that SARS/MERS including Corona can infect the brain stem, possibly from the nose via nerves into the brain, and such effects are also possibly one reason for Long-COVID. But practically nobody knew that back then, hardly even heard of Corona, at first known as a lung disease far away in China. My mother had asthma, used the same spray that a recent study indicates would reduce the chance of severe affection of the lungs. My father and me had absolutely no symptoms, nor did anybody we knew have anything like that at the time. My mother had always clearly stated that she did not want artificial feeding, but if we had assumed a temporary infection with a good chance of recovery... Even though my parents had lead an independent, active life right until then, there were many concrete health issues indicating that this would not continue much longer; I would guess in any case not more than one year. My parents had promised each other already when young that they would only go together, and in the end they almost did; if legally possible (they were at EXIT, but my mother was already not mentally fit enough any more), they might have. With my parents it will probably always remain some sort of *Rashomon* situation; reality, fate, choice, and maybe on several levels Gibbs’s rule #39 (“no coincidences”), or rather along Robert Graves’ anecdote (see page 26) it was enough for a habit—moon, great goddess, and, related maybe also to my articles at the time, hopefully rather an act of grace than disagreement. RIP Romeo+Suzy 😊

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Sleeping-Beauty-Dreaming

Starting roughly with summer 2021 I started to show a sentence that his website would be sleeping like Sleeping Beauty, at some point also adding that she would be dreaming, which gives the whole thing also something *avantgarde*, something surreal, as in the fairy tales the sleep of Sleeping Beauty would usually rather be related to death, as a dreamless sleep.

I do not know why exactly, even though I have a few hints, like that maybe my discoveries would have reached a state where making them public would become dangerous as they might influence so much. An oracle I cast into the text version of my 'A few new discoveries in physics' document of 2002 in the way described in some of my Usenet posts gave this:

The deep, dark secrets of the world are guarded by the heavier elements, i.e. collectively and unconsciously by the female side in both women and men, which also decides about life and death (within the limits of physics). Consequently, such issues should not be approached without the necessary respect. As man, I am naturally limited in this respect. All I can give you, is maybe a few general tips and insights which I have written during autumn, the season that contains the two older adult signs who have the unthankful task to decide.

In a way this probably says it all. This is not the time to continue, not because of me, but because the fates decided so, for all.

For some ruminations around why and what see inside [web2021.zip](#) at several places. Let me just add that since late spring the asteroid 100 Hekate has been going back and forth across my MC and moon, which will last into January 2022. Maybe afterwards things would become easier again with xphi, but in my feeling the only thing that will be easy for quite some time, possibly for the rest of my life, will be to just let xphi rest, only make very minimal changes.

I guess external 'Seeds' as mentioned in the above zip file and in the corresponding section on xphi may be more likely possible in time, but I guess only very leisurely, in a way rather by waiting for them to grow, as was often also the case with evolutions at xphi, than actively pushing and promoting anything, which would, of course, overall continue to mirror the meaning of the word *exactphilosophy*, as I defined it, quite closely and taoistically.

Let me add a few memories around xphi on the following pages, and then most likely really let it rest, maybe only for a few years, maybe for longer, maybe for the rest of my life. I had often considered xphi also a statue, and at some point the 'chiseling' of the xphi statue simply has to stop, not in my interest, but in the interest of all, while spin-off 'statues' might still be possibilities.



## Tiefenbrunnen

I read most of Liz Greene's 'The Astrology of Fate' and especially Robert Graves' 'The Greek Myths' in summers at Badi Tiefenbrunnen, starting from 1998. That is also where I considered many aspects of my idea to define elements in terms of immediate experience of space and time, as in/out and rest/move, plus their transformations, while looking at the beautiful tree near the diving platform.



From there I could also often see where I live across the lake on the less sunny side, somewhere below the Felseneggturm:



Actually, the Felseneggturm of 1961 recently got a modern twin, and the old one will itself be dismantled in early 2022, maybe most fitting with Jupiter-Saturn cycles, more precisely the conjunctions of 1962 and 2020.

Not far from Badi Tiefenbrunnen is actually the villa of Astrodienst ([astro.com](http://astro.com)), and after discovering elemental transitions in the star signs in 2001, I thought that the combination of Liz Greene, then living in Zürich and chief astrologer at [astro.com](http://astro.com), and Alois Treindl, founder and then CEO of Astrodienst, as well as a physicist with a PhD from ETH, would be a match made in heaven

for my new ideas. I honestly was so naive to think that they would be happy to see such a development of the ideas of combining astrology with mythology that their generation had been evolving so beautifully, that they would invite me to visit them at Astrodienst to present and discuss my ideas.

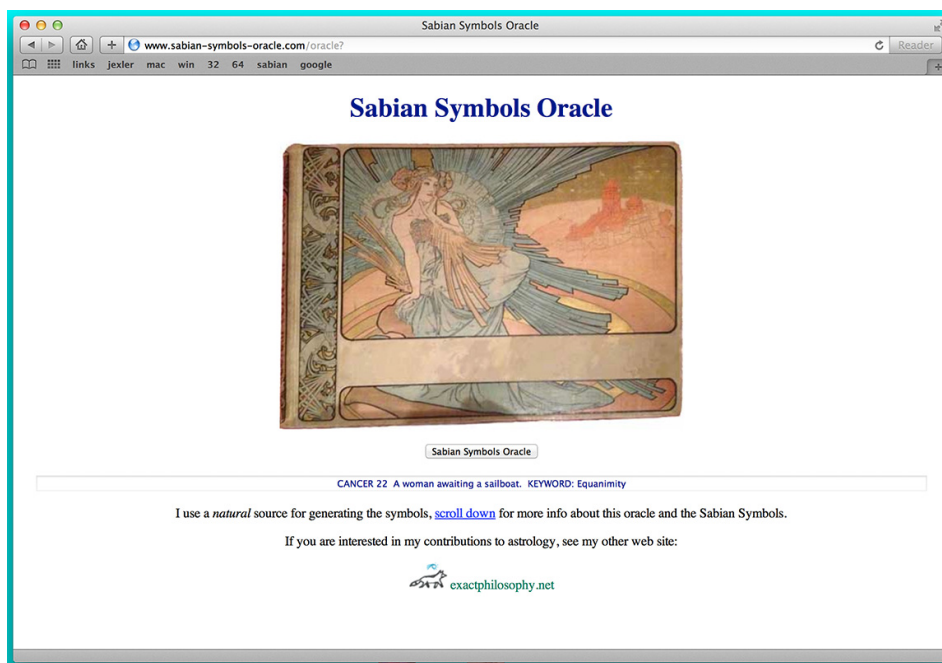
Almost exactly 20 years after 9/11, actually at Badi Tiefenbrunnen something strange happened. Let me quote from a text I wrote the same evening and which is also contained in web2021.zip.

*[...] I was driving to the lake and was thinking about what makes the difference between mainstream stars and avantgarde artists and I think I understood. Stars are at the mercy of the public because they define themselves by how the public perceives them; if the public adores them all is great, if the public hates them or wants them to go through all kinds of excesses, they often do not have enough force against it, as the public is their "family". In contrast, in the avantgarde what counts is how fellow artists in the same small "circle" see it, while the public is just made fun of, but in such a way that the public does usually not realize it or there is at least plausible deniability to keep a bourgeois facade.*

*The way I am made, for all that it appears I cannot build a link to the general public, too diverse these worlds, expectations, etc., as far as it seems. So, the solution in my case—as I realized when already at the lake at the Tiefenbrunnen Badi [...] is to bind my well-being to that creature I mentioned many times, and in some sense probably what is around her, what is her world.*

But only if and whenever she feels like it in that remote 'telepathic' way. In my feeling she also decided this in the immediate sense—to let xphi be and focus instead on essentially two specific seeds.

Some beautiful projects that were up only for a short time or, at least so far, never materialized. First a website [sabian-symbols-oracle.com](http://sabian-symbols-oracle.com) (2014):



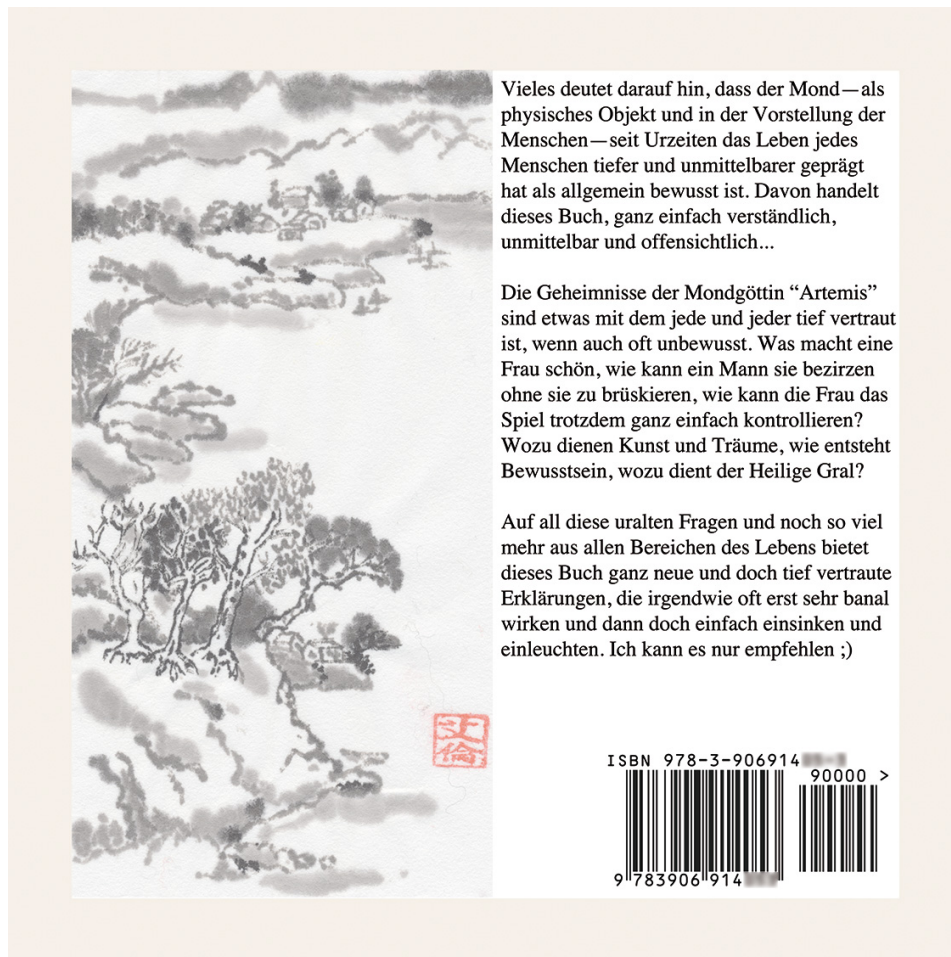
The tiny web server for the website [artemis.com](http://artemis.com) (2015):



The book *Artemis – Die geheime surreale Welt des Mondes* (2013):







In 2021 I designed two fonts, which I am so far using to write the book 'Elemental', one of the seeds. One font is Stoicheion, after the word that Plato and Aristotle used for element, also used for letter and objects in the sky, a font with only uppercase letters plus space. The other font is Jackwrite, a proportional typewriter font with special features inherited from Fredrick Brennan's hyperrealistic TT2020 font with 9 slightly different glyphs for each character.

## THE WORLD IN A NUTSHELL

**All experience in life is personal.**

Life as experienced by everybody is a bit like a movie. Things are happening inside and outside of you. Unlike in a movie, you can influence some of it. But most is just happening independently of what you desire.

Nobody ever looked at the world consistently from that perspective. It is not the only viable perspective. But a fascinating one with lots of potential to explore. Way more than it may seem.

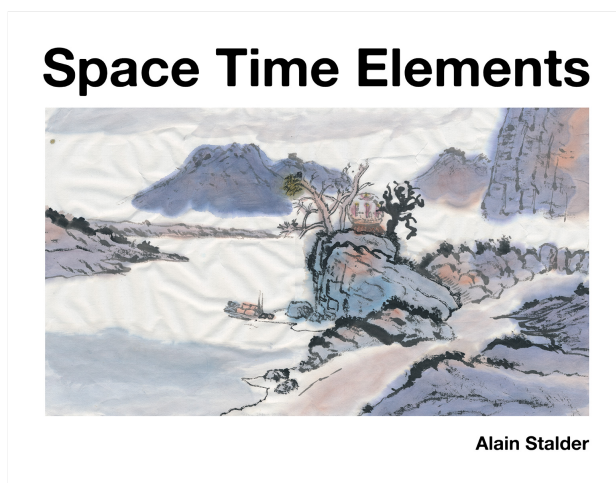
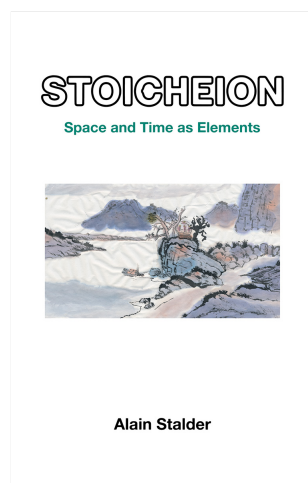
Stoicheion was also inspired by the beauty of ancient Greek Stoichedon style, which was, however monospaced. And first I wanted to call the font Sihlmatte, after the housing estate where I grew up with my parents. In any case, I think Stoicheion would make a beautiful font for art exhibitions, while Jackwrite would be very useful for the main text in novels and the like.

ATIONS HE HAD RATHER HOPED THAT HIS WIVES VIEWS ON  
 BUT HE SOON FOUND OUT THAT HE HAD A DIFFERENT STO  
 AS SHE ENTERED THE ROOM WE HAVE HAD A MOST DELIG  
 I WISH YOU HAD BEEN THERE JANE WAS SO ADMIRER NOT  
 HOW WELL SHE LOOKED AND MR BINGLEY THOUGHT HER C  
 R TWICE ONLY THINK OF THAT MY DEAR HE ACTUALLY DAN  
 E ONLY CREATURE IN THE ROOM THAT HE ASKED A SECON  
 S I WAS SO VEXED TO SEE HIM STAND UP WITH HER BUT  
 ALL INDEED NOBODY CAN YOU KNOW AND HE SEEMED QUITE  
 DOWN THE DANCE SO HE INQUIRED WHO SHE WAS AND GO  
 THE TWO NEXT THEN THE TWO THIRD HE DANCED WITH MIE  
 RIA LUCAS AND THE TWO FIFTH WITH JANE AGAIN AND THI  
 GER IF HE HAD HAD ANY COMPASSION FOR ME CRIED HER  
 DANCED HALF SO MUCH FOR GODS SAKE SAY NO MORE C  
 HIS ANKLE IN THE FIRST PLACE OH MY DEAR I AM QUITE  
 W MANDRAME AND THE OTHERS ARE QUADRING WOMEN I N

Also interesting to see how sans-serif fonts came up around the time of the discovery of Uranus, via the architect John Soane inspired by Roman inscriptions and eventually removing the slight serifs carved there, but that is another story.

I am not sure when I first had the idea, maybe as early as the 1970s, maybe only in the 1990s after contact with LaTeX, but I have been dreaming about a pocket book 'The World in a Nutshell' with lots of small illustrations, often only one to three lines high, right as part of the text, since a long time. In a way the pocket book 'Space, Time, Elements at exactphilosophy.net', resp. the core content of xphi, come somewhat close to that, and likely the book 'Elemental' I am leisurely letting grow might also be very similar, maybe even closer than it appears now, despite LaTeX not being made for small graphics in paragraphs.

Two ruminations for book covers of the middle of spring 2021, as I do not want to show the cover of 'Elemental', yet, even though it would be beautiful.



I hope this document, actually the third of some sort of fated triptychon, will allow me to settle xphi gently. As the third one it would be related to Atropos, and do not ask why Baba Yaga has three pairs of helping hands. . .

## Zen Garden in Kyoto

I guess the previous pages sounded pretty sad overall, and that is true. Then again, xphi was only growing so quickly between about summer 2016 and early 2021, so a state where 'she' almost exclusively rests by changing is not that unusual. Also, with the 'seeds' she is a mother, while her children are growing she does not have to do a lot centered on herself.

Would be so beautiful if some people would pick up some things from here, but maybe that is more likely the less I keep touching it ? Might be.

Here is a photo my father took in Kyoto in 1964 when they were traveling around the world Greece-Egypt-Hong Kong-Thailand-Toyko-Kyoto-Hollywood.



I hope my ability to produce beautiful things and also find some happiness in life did not evaporate after they were gone, I hope was just parallel circumstances, also since that seems to have actually only really happened at xphi after I made the breakthroughs of late 2020 and early 2021, which give my core findings in essence *critical mass*. Maybe simply I myself unconsciously do not want to continue at xphi, but rather want to evolve some core themes further with more focus and carry them to people; maybe 'she' is even not involved 'telepathically' at all, maybe never really was or no longer much, who knows in the end ?

As far as I am concerned, whenever I relax and lay back, am perfectly happy with what I created so far in my life, and my parents were, too; the solution to anything that is stuck cannot be "more and more" all the time anyways, everything rests by changing, but if the little fox...



THE END



© 2002-now Alain Stalder  
admin@exactphilosophy.net

exactphilosophy.net



avantgarde

Teslacard Postcard Action 2010

In early summer 2010, as some kind of art project codenamed *Teslacard*, I sent about 250 postcards to astrologers and astrological organizations worldwide, including to many well-known ones (see the books exactphilosophy.net 2017, 2019 or 2020 for a complete list). The postcards sketch my elementary model of the star signs in terms of transformations of the elements, which I first publicly postulated in 2002. Images and photos of the postcards below.

**FIRE**

Aries Leo Sagittarius

The wood ('earth') that is burnt by the fire of life is in myth the wound of the grail king ('leo') or the deadly wound of chiron ('sagittarius'), and it turns into knowledge and wisdom ('air') that so becomes immortal.

**AIR**

Gemini Libra Aquarius

Teiresias ('libra') is blinded by Hera ('loses fire'), but is given the gift of inner vision ('water') by Zeus; so from gemini's random flashes of interest ('fire') to aquarius' universal love raining down equally ('water').

| element | transition       | image |
|---------|------------------|-------|
| fire    | earth-fire-air   | fire  |
| air     | fire-air-water   | cloud |
| water   | earth-water-air  | river |
| earth   | fire-earth-water | tree  |

**EARTH**

Taurus Virgo Capricorn

Persephone ('virgo') is at first only looking at the sunny surface ('fire'), but then starts to look down to earth to pluck a flower, and is abducted to the underworld ('water').

**WATER**

Cancer Scorpio Pisces

"The Terrible Mother ['earth'] who seeks to retain control [...] and the Divine Father ['air'] towards whom the individual aspires."—Liz Greene on Cancer in 'The Astrology of Fate'



Dear Astrologer,

The front of this postcard presents a model for the 12 star signs, which is fantastically simple and, yet, fits in a million beautiful ways with the myths and attributes of the star signs.

See front page for the model in more detail and some examples from mythology, or visit my web site, [exactphilosophy.net](http://exactphilosophy.net), if you really want to dig into this.

My web site contains also a way to get to 4+1 elements from *first principles* and a model that would uniformly describe all kinds of 'psi' phenomena, including astrology.

I am a Swiss physicist (\* 7 Aug 1966 at 4:12 AM in Zürich)  
and am doing this as my hobby.

Alain Stalder





© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net




avantgarde

## Mountain Astrologer ads

In 2009-2013 I placed twenty-five gently surreal ads in *The Mountain Astrologer*, a prominent U.S. astrology magazine. There were three slightly different ads, all business card sized; see the books exactphilosophy.net 2017, 2019 or 2020 for images for all three. Here is the last one which ran 13 times:


© 2002-now Alain Stalder  
admin@exactphilosophy.net

**exactphilosophy.net** 

Almost the slowliest evolving web site in the world...  
with hidden jewels that you won't find anywhere else.  
By Swiss physicist Alain Stalder (\* 7 August 1966)

<http://www.exactphilosophy.net/>

Scan of the bottom part of a magazine page with almost the last ad:

exactphilosophy.net 

Almost the slowliest evolving web site in the world...  
with hidden jewels that you won't find anywhere else.  
By Swiss physicist Alain Stalder (\* 7 August 1966)

<http://www.exactphilosophy.net/>

Oct./Nov. 2013 • The Mountain Astrologer 27

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Delphi for Palm OS

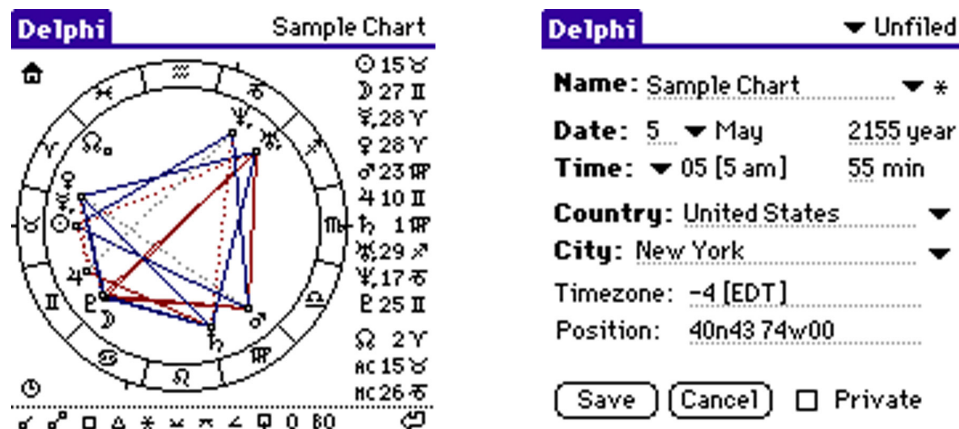
In the year 2000, I wrote an astrology program called *Delphi* for Palm OS hand-held devices, which not only allowed to display horoscope charts, but also to tap on shown elements, for example, in order to show only aspects to a certain planet. In order to calculate planetary positions and to get coordinates and time zones for places world-wide, I wrote an astrological software library called *astrolib* to go with *Delphi*.

Moreover, in the about screen of *Delphi*, I placed cryptographic hashes and digital signatures in order to be later able to prove that I had already formulated certain ideas at the time.

## Details

*Delphi* and *astrolib* were first published 7 October 2000. The initial versions of *Delphi* were black and white and *astrolib* contained information for about 350 locations around the world. In 2001, first support for synastry relationship charts followed, then color charts and in *astrolib* data for about 2000 additional locations world-wide.

The screen resolution available to *Delphi* was only 160 × 160 pixels:

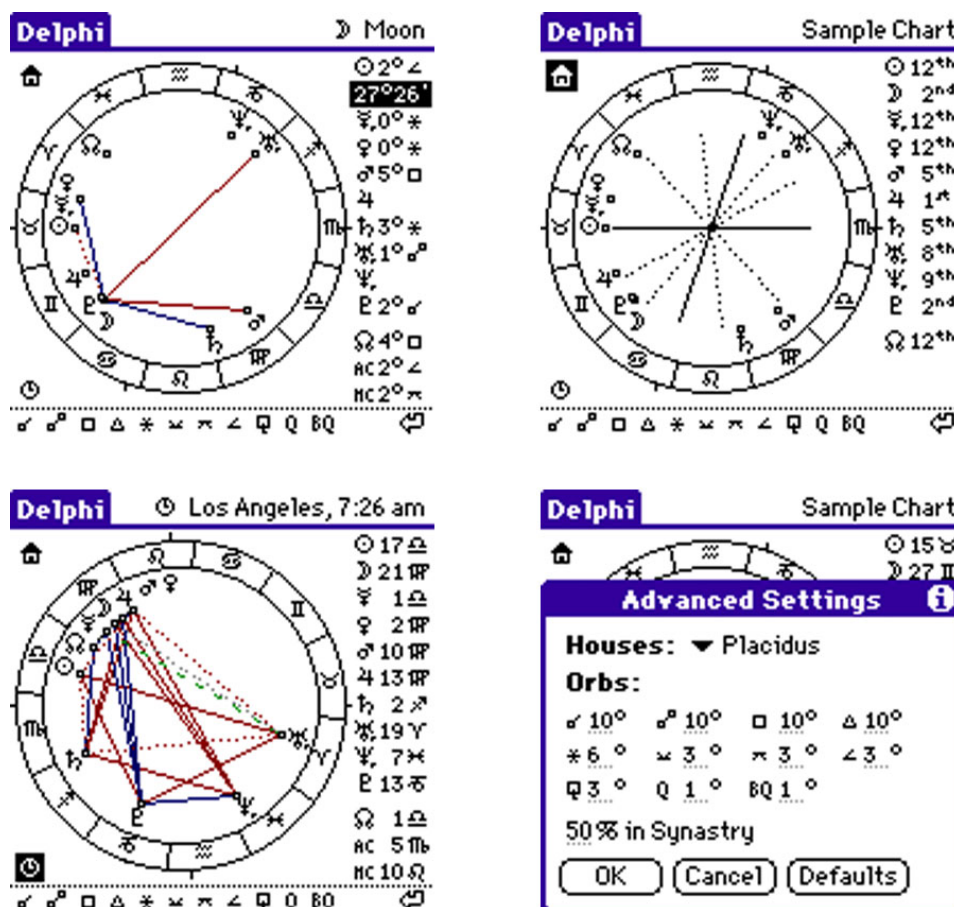


In order to still be able to display a lot of useful information, it was possible to tap on practically all visible items on the screen:

- Planets in the chart or in the list to the right, to show for example only aspects to the Moon and to show its position with arc minutes in the list.
- Aspects, to show for example only squares.

- Star signs, for example, to show only planets in Leo.
- The house symbol in the upper left corner, to switch to a view with houses instead of aspects.
- Houses, to show only planets in a certain house, as well as the the position of the house cusp.
- The clock symbol in the lower left corner, to display a chart for the current time, for a selectable location and time zone.
- The name in the top right corner, to edit birth data.

Preferences allowed to define orbs and to select a house system (Placidus, Koch or no houses). It was even possible to “beam” charts between devices using the integrated infrared beamers. Some more screen shots:



Delphi was relatively successful, many thousands of downloads. I once saw an astrologer who used it on his PalmPilot and it also appeared on several CDs that often came with magazines at the time. In the book *"PalmPilot and Palm Organizers! I Didn't Know You Could Do That..."*, Second Edition, by Neil J. Salkind, 2001, Delphi is mentioned in the book and Delphi 1.21 is included on the accompanying CD.

A few technical details: Delphi used routines I wrote myself in order to draw circles, as well as dashed and dotted lines, because the former, as provided by the OS, were too slow, and the latter did not exist at all. Astrolib compressed Unix tz data a lot in order to remain compact and since the memory stack was so

small, some astrolib functions had to use static variables instead of parameters and local variables.

Hidden in the about screens of Delphi, I placed cryptographic hashes and digital signatures of some of my own original works about the world, including astrology, which I had not yet published at the time. In the three images below, each time the Apollon temple at Delphi in Greece is shown, but the apparently noisy underground differs each time and contains the respective cryptographic hashes and digital signatures:



© 2000.

delphi29@excite.com  
jove.prohosting.com/~delphi29



© 2000-2001.

delphi29@excite.com  
jove.prohosting.com/~delphi29

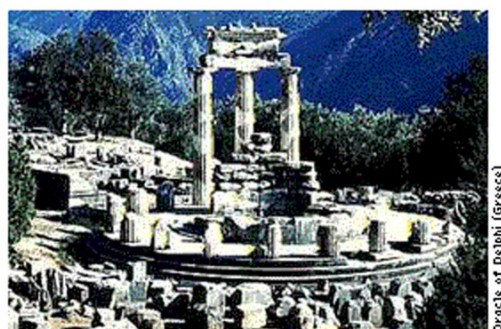


© 2000-2002.

delphi29@excite.com  
jove.prohosting.com/~delphi29

Here is the web site for Delphi at the time. By the way, the image at the top shows the temple of Athena Pronoia at Delphi:

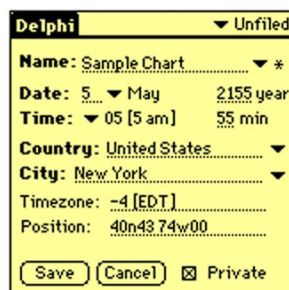
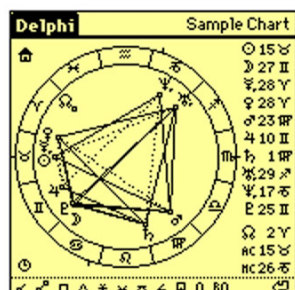
### Welcome to Delphi



Oracle of Delphi (Greece)

### Delphi 2.01

Delphi is a free, accurate and intuitive astrology program for Palm OS devices\*. It lets you create, view, organize and beam birth charts and view synastry charts.



- [View manual online...](#)
- [Read a detailed account of Delphi's accuracy...](#)
- [Download Delphi packaged for Windows ...](#)
- [Download Delphi packaged for Macintosh...](#)
- [Previous versions are still available...](#)

\*requires Palm OS 3.5 or later.

### astrolib 1.03

The astrolib library calculates planetary positions and time zones.

Positions of sun, moon and planets up to Pluto are calculated with an accuracy of the order of one arc minute for dates less than a century away from now. Time zones and other information for about 350 locations on earth are retrieved from UNIX time zone data. About 2000 additional locations are linked to UNIX time zone locations.

The source code is distributed under the GNU Lesser General Public License.

- [View the documentation online or download the source...](#)
- [Download astrolib packaged for Windows...](#)
- [Download astrolib packaged for Macintosh...](#)

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Discoveries revisited

In 2002, I published a 29 page article titled “A few new discoveries in physics” plus a single page review on this web site. I still think that the document is an important contribution to the world and that some of its quirks should be overlooked in order not to miss the opportunities. But this is “your beer”.

[discoveries.zip](#)

### Contents of discoveries.zip

- discoveries.pdf – The main 29 page document, including also the May 2001 disclosure with proof of discovery in the appendix.
- discoveries-hires.pdf – The same document at higher resolution (2019).
- more/discoveries.txt – The plain text of discoveries.pdf.
- more/review.pdf – My single page review of 31 March 2002.
- more/fewmore.pdf – Timeline of when I wrote which parts of discoveries.pdf (plus an earlier philosophical text).
- more/wei-chi.pdf – A usenet post from 2004 (posted to alt.test).
- more/disclosures/ – Several earlier discovery disclosures from 1998 to 2001, plus a document that shows how I published (now cryptographically somewhat outdated) proofs of discovery at the time.
- more/odyssey.pdf – Short document with a quote from Usenet.
- more/pages – All pages of discoveries.pdf at their native resolution of 300 dpi (dvi-ps-pdf toolchain), plus review.pdf also rendered at 300 dpi.
- more/sources – Original LaTeX source of discoveries.pdf.
- more/sources-hires – LaTeX source of discoveries.pdf minimally adapted in 2019; renders to same line and page breaks, but on pixel level there are tiny differences, most notably space between main text and footnotes.
- more/fewmore-hires.pdf – Higher resolution and color chart (2019).
- more/source-fewmore-hires – Corresponding LaTeX source.

# A few new discoveries in physics

Alain Stalder

May 2002

## About

This document presents a few new discoveries in physics which I have made between August 1987 and March 2001. The main text is written in the style of a scientific publication. Some appendices provide additional information and insights, including a detailed proof that the discoveries were known to me in May 2001. If you are not a scientist, you may prefer to read appendix A first.

But first a word of caution: The discoveries described in this document may be deeply disturbing because they are likely to profoundly change several common views about how the world is; read it with care and please do not hesitate to stop when it gets too much to swallow in one reading.

## Abstract

A new physical effect is described. Human brains are emotionally interconnected. The connection is directional with spin 1 symmetry and can be felt across global distances and through the earth. The exact physical nature of the effect remains unknown. Selective sensing of virtual photons, i.e. of electro- or magnetostatic forces, might be part of a future theoretical explanation.

Based on the discovered effect, a plausible explanation of phenomena like telepathy and precognition is given. It is also made plausible how astrology and other ancient mythological beliefs have persisted unconsciously until today and continue to influence our fates by means of collective emotional feedback.

The western astrological system is shown to be essentially composed of simple, opposing principles which originate from ancient greek philosophy. There are two main discoveries. Meanings associated with the star sign, different inner planets were in at birth time, influence how one relates to different classes of people. The meanings associated with star signs themselves derive from different mixtures of the four classical elements, more specifically, from meanings associated with transitions from one element to another. The discoveries are simple and specific enough to be verified quantitatively.

Finally, some fundamental scientific and philosophical problems are discussed in light of the new discoveries.

## 1 A New Physical Effect

### 1.1 The Experimental Facts

The following statements stem from my personal experience. As they have not been independently verified, I have preferred to label them with the letter H for hypothesis.

**H1** Human brains are emotionally interconnected.

**H2** The feeling between two people is maximal if people's heads face each other, face away from each other or one is facing towards the other and the other is facing away, and it is minimal in between, at  $90^\circ$  (a). If two people face each other, the feeling is maximal if the symmetry planes of their heads coincide and minimal if they are perpendicular (b).

**H3** The intensity of feeling decreases with distance (a). In some cases, it can be felt across global distances (b) and through the earth (c).

**H4** For most people the feeling is strongest if the other person is of the opposite sex (a) and especially so if one is in love with that person (b). For homosexual and bisexual people the relative strengths of feeling are different in the obvious way (c).

**H5** The feeling is mutual.

### 1.2 Analysis of the Facts

The most astonishing fact is, of course, H3c, because it effectively excludes electromagnetic waves as a physical explanation of the observed effect. For completeness, I will now show in detail that waves based on any of the four known forces in nature can be excluded.

H2 implies spin 1 symmetry, this excludes gravitation. Strong and weak interactions can also be excluded, because they are short range. Electromagnetic waves could reproduce all facts, except H3c. It is H3c that makes the effect so strange: Whatever causes it, must interact strongly with the matter in human brains and yet very weakly with any matter in between.



Suppose we have an emitter in Europe which emits photons of a wavelength  $\lambda$  with a total power  $P = 10$  mW. Suppose further that all power is emitted uniformly within a cone of  $2\alpha = 10^\circ$ . Finally, suppose that the receiver is in Australia, at a distance  $R = 12'000$  km, has a diameter of the order of  $r = 0.1$  m and is able to detect every single photon passing through it. The number of photons emitted during a time span  $\Delta t$  is

$$N = \frac{P\Delta t}{h\nu} = \lambda \frac{P\Delta t}{hc}. \quad (1)$$

Assuming, for the moment, a completely transparent planet Earth, the number of photons received is

$$N' = N \left( \frac{r}{R\alpha} \right)^2. \quad (2)$$

The minimal wavelength that allows the receiver to detect a single photon per second is then in the range of x-rays:

$$\lambda_{\min} = \frac{hc}{P\Delta t} \left( \frac{R\alpha}{r} \right)^2 = 2 \text{ nm}, \quad (3)$$

Since in reality there is absorption, the actual wavelength would have to be longer in order to get a detectable signal. The number of photons decays exponentially with distance:

$$N'' = N' e^{-R/r_0}. \quad (4)$$

Here  $r_0$  is a decay length which depends on wavelength and material. Now, even assuming an actual wavelength of as much as 2000 km, corresponding to  $N' = 10^{15}$ , in order to detect again a single photon per second, the decay length would have to be at least 350 km, a value which would even be enormous for x-rays.

### 1.3 Gedankenexperiment

Looking for different explanations, I noticed on the occasion of the total solar eclipse of August 1999 that static forces could at least qualitatively reproduce the observed effect. And it also reiterated how misleading visualization of quantum mechanical effects can be.

In quantum field theory, forces are mediated by the exchange of virtual particles. With that picture in mind, it appears strange that the moon does not shield the virtual gravitons exchanged between sun and earth in any way. According to Newton's law of gravitation, you simply sum over all mass points to calculate the total force. There is simply no shielding.

In that sense, a Faraday cage does not really shield what is inside from the rest of the world by redistributing charges on its surface, it is just so that forces add up to zero. Of course, all of this appears not to matter, since the sum of forces is all that can be measured.

But suppose there was a way to filter virtual photons, that there was a way to selectively detect some of them and to ignore all others. Then H3c would automatically be fulfilled, completely independently of any matter between the two partners. And H3b would also be quite realistic, as follows.

Using the same setup as before and assuming that one electron per carbon atom of  $m = 10$  mg of carbon is involved in the interaction on each side, the charge on each side becomes

$$Q = e \frac{N_A m}{12 \text{ g}} = 80 \text{ C}, \quad (5)$$

where  $N_A$  is Avogadro's constant. The force becomes

$$F = \frac{1}{4\pi\epsilon_0} \left( \frac{Q}{R} \right)^2 = 0.5 \text{ N}, \quad (6)$$

which would be easily detectable.

### 1.4 Experimental Challenges

Previous experiments trying to prove some kind of "telepathic" connections have remained essentially without clear results. Predictions made here, however, should be specific enough to be verified experimentally.

Here are some concrete suggestions: Take a couple of lovers as probands, not just any two people. Separate them as far as possible from any complex organic life-forms, especially from any people they know in person, like family, friends and the experimentators. I suggest a desert on the other side of the earth relative to those people. If you want to prove H3c too, put each lover separately into some place below the earth's surface, say, a mine. Make sure that family, friends, experimentators and anybody else who knows about the experiment, is asleep and facing into a direction with low interaction when the experiments take place. Keep time and place of the experiments as secret as possible.

As a side remark, let me briefly explain some basics about how experimental physicists think to people without such experience: Instead of trying to prove something as a whole, physicists typically split complex questions to nature up into several simple questions that nature is then forced to answer with yes or no, but nothing in between. Then they use these answers to find out which questions to ask next and finally to construct answers to more complex questions. I call this technique "divide and conquer". See [1] for some fun examples about this way of thinking (most directly related is maybe the section about how to conduct experiments with rats in maze, in the last chapter, "Cargo Cult Science").



## 1.5 Hypothetical Consequences

**H6** Mammals are also connected within their species (a) and with other mammal species, including humans (b).

**H7** More complex information than just an intensity can be exchanged. By definition this is telepathy.

**H8** People's connected brains form the collective unconscious, a large brain with feelings and intensions on its own (a). As it is composed of more nerve cells than a single human brain, it can have more complex thoughts and feelings than a single person (b). Collective thoughts can appear as precognition to individuals (c).

**H9** People are guided to fulfill collective intensions by collective positive feedback to actions that fit the collective purpose and by negative or no feedback to actions that do not (a). The collective unconscious still thinks largely in ancient myths (b). Ancient astrological beliefs are the major emotional force field acting on people and also on larger entities like companies or countries, just on anything that has a birth or founding date (c).

H6b would, for example, explain how dogs found their human folks who had moved hundreds of miles away to a new home. Depending on how the discovered effect comes about, the connection could also extend to smaller animals. In [2], for example, it is reported that carrier pigeons found their way home to the loft during world war one, even if the loft had been moved during the day.

Apparent precognition can be understood from the following analogy: Imagine you are in a dark room, about to switch on the light. Then you might already picture the room when it is lit, with the result that a brain cell in the part of the brain where things are visualized would precognize your action of switching on the light by a few seconds.

H7-9 are difficult to separate from certain religious experiences where people feel a higher power, hear voices, feel driven to do certain things, etc. These issues will be discussed in sections 3 and 4. Let me just make a practical remark here: The existence of a collective mind could make it more difficult to prove H1-5, since it could work actively against the experimentators. On the other hand, I could write and publish this document, so any potential collective opposition seems not to be impossible to overcome at the moment.

H8 and H9 are difficult to prove directly. However, if H9c is proven, the others are practically proven too. The next section will provide a simple and specific model of astrology which should allow to do so. Before that, let me mention that the most prominent argument against astrology, namely that due to the precession of the earth's axis somebody who is, say, born at the beginning of spring, is considered Aries by astrology, but astronomically has the sun still in the star sign of Pisces,

does not contradict H9c. It rather confirms that astrology has nothing directly to do with the stars in the sky, but rather with ancient human beliefs about them.

## 2 Elementary Astrology

This section presents a simple astrological model. Rather than trying to be complete, it is focussed on simple, specific predictions that are quantitatively measurable. The model is supposed to apply to all cultures that descend from ancient greek culture. Specifically, these are the western world, i.e. Europe and its former colonies, large parts of the former Soviet Union and the arabic world.

The model strictly separates meanings of planets from meanings of star signs. Planets determine which areas of life are influenced. The star sign, one of the planets was in at birth time, determines in which ways the corresponding area of life is influenced.

### 2.1 The Planets

**H10** Different planets influence how one is towards different categories of people: The sun<sup>1</sup> how one is as a father and towards the father (a), the moon how one is as a mother and towards the mother (b), Venus and Mars how one is towards female resp. male friends (cd), Mercury how one is towards siblings (e). More precisely, the properties associated with the star sign, one of these planets was in at birth time, influence how one likes to behave relative to people of the respective category. The terms "father" and "mother" do not only apply to physical parents, but generally to anybody assuming a parental role (f), like, for example, a teacher. Similarly, the term "friend" includes anybody of roughly the same generation who does not fall into any of the other categories (g). This specifically includes male and female lovers. The term "siblings" also more generally applies to concurrents for the same lover (h).

**H11** Jupiter and Saturn apply to areas in which one gets more resp. less help from the collective unconscious than average. This means that abilities associated with the star sign, either of these planets was in at birth time, will either be quickly and almost effortlessly available or else will have to be earned through hard work.

**H12** Uranus and Neptune apply to areas which are more resp. less easily made conscious than average.

**H13** Pluto applies to how one handles fate. In other words, one will typically use the qualities and abilities associated with the star sign, Pluto was in at birth time, to solve the problems that life poses.

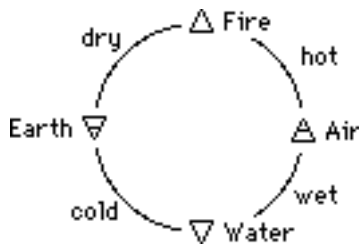
<sup>1</sup>Note that astrology is based on a geocentric view of the world. Any object, including sun and moon, that moves relative to the stars is called a planet.

Although it is common astrological knowledge to associate, say, the moon with the mother or Pluto with fate, I have not found anything as specific as H10 and H13 in the literature. Similarly, Jupiter and Saturn are generally associated with “good luck” and “bad luck”, respectively. Luck used to be understood as help by the gods, who are, at least in the minimalist view of science, indistinguishable from the collective unconscious. H12 is common astrological knowledge.

## 2.2 The Star Signs

**H14** The meanings associated with star signs are composed of ancient greek beliefs about the four elements fire, earth, air and water, and the transitions between them (a). For each element  $E$ , the three star signs assigned to it correspond to different stages of transition from neighbouring elements  $A$  via  $E$  to  $B$ : The first star sign (in the order of the zodiac) is composed mainly of  $A$  and only slightly of  $B$ , the second one of roughly equal amounts of  $A$  and  $B$ , and the third one mainly of  $B$  and only slightly of  $A$  (b).

This requires some introduction to the ancient greek theory of the elements<sup>2</sup>



The four elements are composed of two pairs of properties, “hot/cold” and “wet/dry”. Fire is hot and dry, water is cold and wet, earth is dry and cold, air is wet and hot. Transitions between the elements are only possible by flipping one of the properties at a time. For example, water can be transformed directly into its neighbouring elements earth and air, but only indirectly into fire.

The symbols for the four elements are essentially triangles, the ones for the hot elements point up, the ones for the cold elements point down. When superimposed, they form the hexagram which symbolizes the important greek view that “what is above corresponds to what is beneath”. In other words, what happens with the stars and planets in the sky corresponds to what happens to people and things on earth, what happens in the physical world corresponds to what happens in people’s psyche.

<sup>2</sup>Note that this is intended primarily to be an accurate description of today’s psychological reality and not necessarily a historically correct account of the ancient greek theory of the elements. It must also be noted that at no time in history everything was conscious to people, and not everything that was, had been written down and preserved until today.

Therefore the term “element” was not only meant to apply to physical reality, but also to psychology. In this light, the psychological meanings of hot/cold and wet/dry have to be explained.

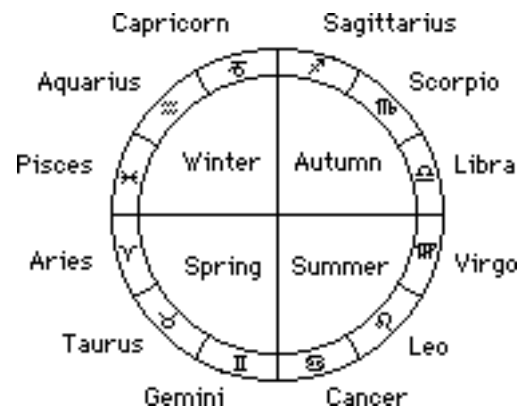
Nights are colder than days, therefore cold is associated with night. People are more active during the day than at night, therefore day is associated with active. Men typically assume a physically more active role during sex, therefore man is associated with active. In other words, water and earth are considered female elements, whereas fire and air are considered male.

The sun only shines during the day and the moon is only rarely clearly visible at daytime, therefore man is associated with sun and woman with moon. This association is strengthened by two facts: The changing apparent size of the moon reminds of pregnancy and many women have their monthly cycles correlated with the lunar cycle.

Dry and wet are associated with brittle and malleable, respectively. Dry things are harder than wet things, they either stay how they are or they break, whereas wet things can bend and flow. Here the psychological meaning is clearly recognizable.

All of this correlates well with the common astrological view that water has to do with feelings, earth with reality, fire with imagination and air with mind. More precisely, fire is about visual imagination because it produces light, whereas air is invisible and hence about abstract, logical thinking.

Finally, here is a quick overview of the Zodiac, for people who are not familiar with it.



The astrological year starts with Aries at the beginning of spring. Aries is a fire sign, Taurus an earth sign, Gemini an air sign, Cancer a water sign, and so on. The first sign of a season is called cardinal, the middle one fixed and the last one mutable. Correspondingly, each character likes to start, pull through or to finish things, respectively. These meanings will be explained in more detail later on.

## 2.3 Fire (Aries/Leo/Sagittarius)

**H15** For fire, the elements *A* and *B* mentioned in H14b are earth and air (a). The main picture is wood burning to smoke as the element earth is transformed by fire into air (b). This is associated with the transition from animal to man to god during which the animal side gets more and more wounded (c). The animal side corresponds to impatience (d), doing instead of imagining (e), secrecy (f), thrift (g), and the lower part of the body (h).

H15c comes about as follows: Earth produces plants that feed animals and people, like women produce children. Therefore the human body is associated with earth. In other words, H15b and hence H15c expresses that the physical, mortal body is wounded and, at the same time, transformed by the imaginary power of fire into knowledge that can be communicated to the next generation and thus becomes immortal.

The other hypotheses derive directly from H15c. The less one is mortal, the more time one has in general (H15d), and specifically to think before doing (H15e), the latter also because one is already mainly made of air. The more mortal one is, the more one has to keep some things secret to improve one's chances in the battle for survival against others (H15f), the more one has to make sure one has enough money and material goods to survive (H15g). The wound can be physical and then it is often in the lower part of the body, the one with the sexual organs and without the head (H15h), but more often, the wound is mainly psychological.

Note that H15b-h are not strictly logical consequences of H15a, but a priori just hypotheses for the preferred associations that people have unconsciously made and which therefore have survived by natural selection.

## 2.4 Water (Cancer/Scorpio/Pisces)

**H16** For water, the elements *A* and *B* mentioned in H14b are earth and air, too (a). The main picture is ice melting to water and then evaporating to mist (b). Associated with it is the picture of the circle of water originating from a source in the mountains, flowing as a river and then into the sea (c). This is further associated with the cycle of life, symbolized by the three fates who create, measure and end life (d). During that cycle, borders dissolve (e), one tries first to protect oneself from pain, then pays back and finally forgives (f).

The association between H16b and H16c comes from the fact that to the ancient greeks the only place where frozen water could be found all year long was in the mountains in form of snow or glaciers, where also rivers originate. Rivers then flow together into larger rivers and finally into the sea, from where the water will eventually evaporate. Through that process, water from different sources is mixed, borders are dissolved (H16e).

The three fates are three mythological women: One spins the thread of life, one measures its length and the third one cuts it. They correspond also to three phases in the life of a woman and to the phases of the moon. The phase around full moon corresponds to a pregnant woman or, in other words, to a mature, fertile woman; the phases before and after to a girl who cannot have children yet resp. to an old woman who cannot have children any more.

The associations of the three fates with H16c and H16f come about as follows: A young girl still needs protection and does not get involved with men. A mature woman does expose herself to men, but is also strong enough and ready to strike back when hurt. Also children are a mixture of their parents and hence of their ancestors.

An old woman has seen a lot, has mixed with many influences. She can therefore understand why somebody hurt her and can forgive. In addition, she is already mainly made of immortal air and can therefore not really be hurt much; the sea seems to stay forever the same even if one knows that rivers flow into it and some water evaporates from it.

## 2.5 Air (Gemini/Libra/Aquarius)

**H17** For air, the elements *A* and *B* mentioned in H14b are fire and water (a). The main picture is that of a cloud out of which come both lightning and rain (b). Associated with that is the transition from child to adult to old man (c). This is further associated with first switching between opposing principles, then trying to balance them and finally unifying them into a single entity (d). During the transition, transparency (e), constancy (f) and predictability (g) increase, whereas the ability to learn and to adapt decreases (h).

Lightning or a flame are quick and random, rain is constant and predictable (H17fg). Children are quicker and less predictable than adults. They explore the world by turning things around and looking at them quickly from different sides. They have to do so in order to build a model of the new object in their heads. The two faces of a coin, for example, are a priori just two pictures, only in the head they become a single unit, called "coin".

Through that process, as one grows older, things get more unified as more apparently separate phenomena are recognized to be just different sides of the same. As one gains more insights into the world, transparency increases. But at the same time, one also becomes less flexible to deal with new things that do not fit well into the model and is tempted to either force some things to be the same or to ignore what does not fit in.

## 2.6 Earth (Taurus/Virgo/Capricorn)

**H18** For earth, the elements *A* and *B* mentioned in H14b are fire and water, too (a). The main picture is that of a tree which needs both the light of the sun from above and the water from below to grow (b). Associated with this picture are developments during a human life during which the fear of dying becomes stronger than sexual drive (c). Structure becomes more important than beauty (d), one is forced to decide (e) and plans further ahead (f).

Trees have fruits and flowers above the earth which symbolize the beautiful but also short-lived part of nature. Note that, according to Freud [3], “beautiful” is synonymous to sexually exciting. Trees also have roots under the earth which not only feed them with water, but also keep them from falling down, thus symbolizing the limiting, structuring side of nature. Similarly, as one grows older, one is gradually confronted with the reality that all life has to end sometime as one painfully feels more and more parts of one’s own body.

Therefore the transition is between what Freud saw as the two strongest forces acting on people, namely sex and the fear of dying (H18c). In that respect, it should be noted that initially Freud’s emphasis was on sex being the main force driving people and only later in life he considered fear of death a force of comparable strength.

Thus, as one grows older and has less force to spare, it becomes more important to carefully structure and plan (H18df) and to make sure that no resources are wasted (H18e).

## 3 Applied Astrology

**H19** Ancient greek philosophy is based on language. If two objects share an adjective, there is believed to be a connection.

This hypothesis has implicitly been used to derive most of the model. Consequently, language will be used as the main key to understanding symbolic content in the world in what follows. Concretely, the model is first applied directly to the United States of America, then a number of refinements and additions are made, including detailed descriptions of the twelve star signs, and finally the model is applied to a few more real world examples.

But first, let me reiterate the initial warning: What follows may be deeply disturbing because it may profoundly change several common views about how the world is. It may also confront you with unconscious psychological wounds (traumas) within yourself, your family or your environment.

Deep seated traumas are often quite complex matters that are also possibly shared within several people. There is no general rule as to whether and when it is

better to make a trauma conscious or not. Sometimes professional assistance can be helpful, sometimes it is best to leave things unconscious.

If a statement stirs up a trauma, you will probably react quite strongly to it, refusing the statement quite imperatively. In comparison, the reaction to a statement that is just not correct would be much more indifferent. Note, however, that a statement of which you think strongly that quite the contrary is true, at least hits the right theme and is therefore less likely to have occurred merely by chance than one that leaves you indifferent.

### 3.1 The United States of America

**H20** Sun and moon have stronger astrological influence than the other planets (a), the sun has a stronger influence than the moon (b). The sun is associated with the conscious self, the moon with the unconscious self (c).

Sun and moon appear brighter and bigger than the other planets and are also the only ones that cause noticeable physical changes on earth, namely seasons and tides. H20c comes about as follows: During the day one is typically consciously awake, at night one sleeps and is therefore unconscious. Sun and moon move across the sky at approximately uniform speeds, unlike all other planets, which even move backwards sometimes<sup>3</sup>. In other words, sun and moon appear to move on their own, independently of their environment. Similarly, the word “self” is defined as the sum of all thoughts and actions that are done independently of the environment.

The USA celebrates its birthday on the 4<sup>th</sup> of July, when the sun is in the middle of Cancer.

Protection (H16f) is important to the USA. Large government agencies with billion dollar budgets have been created to protect the country. On the other hand, most people living within the USA are quite well protected from external influences. Television deals almost exclusively with internal affairs. A large percentage of members of congress do not have a passport; they have never been out of the country.

The USA is very creative, being a cardinal sign and a source (H16c). Europe, in contrast, is rather adapting and refining the new things that come from the USA. Mothers are the source of life, they create families. Sitcoms, for example, typically deal with family matters, with the emotional relations between a small number of people who live or work together. Uninvited intrusion into private property, the inside of a family, is a serious offense.

A source does not know where its water comes from, that it recycles the water of rivers from all over the world

<sup>3</sup>This apparent backward motion is, of course, just an optical illusion, due to the fact that earth and all other astronomical planets are revolving around the sun.

that had flown into the sea. Similarly, immigration into the melting pot USA largely relieves one from past burdens and prepares the ground to create new things. A map of the USA shows names originating from all over the world lying side by side; they have largely forgotten where they came from.

The declaration of independence was signed on July 4<sup>th</sup>, 1776, when the moon was in Aquarius.

The influence of the moon is less obvious (H20bc). Uniformity (H17d), for example, can be found in the fact that everybody eats turkey on Thanksgiving or that many things, like fast food, are uniformly available nationwide. In addition, US culture has globally a strong unifying effect without being enforced on other countries or at least not in an obvious, conscious way.

### 3.2 Numbers

To the ancient greeks, numbers not only denoted quantities but also had qualitative meanings (H19). The number 1 describes the initial state of the world, before it naturally split into opposing principles (2). This comes from the analogy to birth where the unit composed of mother and child becomes two individuals.

The number 3 naturally emerges when 2 different things meet, a man and woman, two substances or two thoughts. It is associated with the three fates and with birth. In addition, the number 3 is considered quite harmonic but somewhat incomplete because it is just a bit smaller than the number  $\pi$  which is related to the circle which represents perfect harmony because all its points are equal.

The number 4 is considered rather disharmonious because of the excess  $4 - \pi \approx 6/7$ . Additionally, each of the four elements can be transformed directly into its neighbouring ones, but only indirectly into the fourth. In fairy tales, for example, typically the first two sons of a king are quite like the father, but the youngest son (the 4<sup>th</sup> in the group) is quite different and yet appears to contain what is needed to solve the family's problems. In real families, the first child (no. 3) is typically much more like the parents than the second child.

The number 7 is associated with the number of planets that were known in ancient times. The number 9 is related to fate and birth because it is  $3 \times 3$ , pregnancy is 9 months and because there are nine gates to a woman whereas men only have 8. The number 12 is related to the zodiac, to the number of solar months whereas the number 13 denotes the number of lunar months per year. This list is not complete, of course.

### 3.3 Planetary Aspects

Planets carry names of gods. Hence the planets moving across the sky correspond to gods walking across it.

**H21** Meanings of aspects between planets derive from meanings associated with the corresponding number.

Planets are said to aspect each other if the angle between each other is within a certain range. The major aspects are conjunction ( $0^\circ$ ), opposition ( $180^\circ$ ), trine ( $120^\circ$ ), square ( $90^\circ$ ) and sextile ( $60^\circ$ ), corresponding to a division of the circle by 1, 2, 3, 4 and 6, respectively. Besides there are several minor aspects that astrologers consider. There is no agreement on the range (called orb) within which an aspect can be felt<sup>4</sup>.

Conjunction symbolizes a meeting of gods, the unification of their different forces towards a common goal which is given by the star sign (or signs) they are in. The leader, the planet that has advanced most in the zodiac, decides how the goal is to be achieved whereas the following planet(s) support the leader.

Opposition symbolizes a fight between two opposing principles that are defined by the involved star signs. Similarly to one of the themes of air signs (H17d) and depending on the number and kinds of planets involved on each side, the result can be anything from instant victory of one side (and hence suppression of the other) to unpredictable switching between opposites.

Trines are harmonic and hence passive, squares are disharmonic and hence force to act. A triangle made of sticks is much harder to deform than a square. When a person stands at a square ( $45^\circ$ ), one cannot tell what the person is up to and consequently is forced to turn the head. On the other hand, someone standing at a trine is clearly visible and also not standing in the way.

Sextiles are considered to be harmonic too, but less strongly so than trines and also to represent opportunity ( $6 = 3 \times 2$ ).

### 3.4 Synastry and Transits

**H22** Synastry describes the relation between two events.

Synastry consists of plotting planetary positions for two events on a single chart and then to draw relative aspects between the respective planets.

Applied to two birth charts, synastry describes how two people relate to each other. Even more than H10, it shows how relative the perception of others is because different people will aspect the same person's planets differently or even not at all.

Transits are the passing of planets in aspect to planets in one's birth chart; in other words, they are part of the synastry between oneself and now. Even though H20 suggests that sun and moon have stronger influence than

<sup>4</sup>As a starting point for experiments, I suggest to use the following orbs (by Liz Greene) which are somewhat larger than average and therefore ensure that initially no possibly existing connection is overlooked:  $\pm 10^\circ$  for conjunctions, oppositions, trines and squares;  $\pm 6^\circ$  for sextiles;  $\pm 3^\circ$  for quincunxes, semisextiles, semisquares and sesquisquares;  $\pm 1^\circ$  for quintiles and biquintiles.

other planets, slow moving planets (say, Jupiter and up) can have great effect as they transit very slowly, taking months or even years to do so.

### 3.5 Men and Women

**H23** Tendentially, women think rather unconsciously and collectively, men rather consciously and individually.

This comes from the association of men with the sun and of women with the moon. It explains why men and women often have trouble understanding each other, why they keep surprising each other.

Men have less access to the pool of unconscious information that allows women to just say how something is, but without being able to indicate a reason that men can immediately understand. Women, on the other hand, do not have full access to the special, typically quite biased world, that a man creates in his head.

There appears also to be a physiological reason for H23, as described by Freud in [3]: During puberty both men and women have to redirect their sexual desires away from themselves towards an other person. In addition, women have to stop playing with their clitoris, for several reasons. They have to make their own sexual desires partially unconscious in order to be able to build up the necessary tension between men and women. They have to get into a more passive, receiving role that is oriented towards the penis of a man. This is the reason why women are more adult than men, why women do not play, except with men resp. with their penises.

The female elements, earth and water, are heavier than the male ones, fire and air. They represent a more immediate approach to the world, based on reality and emotions. The male elements are more detached. Fire produces light and hence represents visual imagination whereas air is invisible and hence is about abstract, logical thinking.

Naturally, real people are more complex and differentiated than these opposites because they typically have planets in both male and female star signs which furthermore can aspect each other in more harmonious (female) or more active (male) ways. Ancient greek philosophy is not to be understood literally: There are male and female approaches to everything, be it baking a cake or flying a fighter jet, and the greeks were wise enough not say that one is generally better than the other.

Relations are even more complex than individuals. Synastry allows for  $10 \cdot 10 = 100$  aspects between two planets, more than twice as many as for individuals who are limited to at most  $(10 \cdot 9)/2 = 45$ .

An aspect that is often found in love couples is the quincunx ( $150^\circ$ ). Planets in quincunx are typically in star signs that share little, neither element nor sex nor character (cardinal/fixed/mutable). Quincunxes often

lead to misunderstandings. They are also associated with the fact that when sun and moon are in quincunx, one often mistakes this for an already full moon.

Like H23, quincunxes ensure that no matter how long two people have been together, there will always be surprises that keep the relationship both interesting and challenging.

### 3.6 Dreams

**H24** Dreaming is partially part of collective thinking, more so than conscious thinking.

One way to prove this would be to show that some dream elements correlate much more with the immediate future than with the past without being foreseeable by the dreaming individual (H8c).

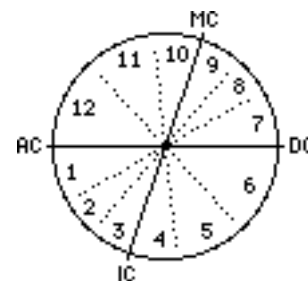
In [1], Feynman describes that he could influence his dreams to some degree. Thus one might even be actively capable to produce dreams that help to prove H24.

### 3.7 Astrological Houses

**H25** The star sign at the ascendent (AC), i.e. the sign rising above the horizon at the time of birth, is how one appears to individuals (a). The star sign at the medium coeli (MC), i.e. at the zenith, is how one appears to the public (b).

Gods see mortals from above whereas normal people are standing on the ground and see each other horizontally. The AC is also associated with the masks that actors in ancient greek theatre were wearing; it is a thin, opaque shell with a few openings.

The AC and the descendent (DC) form an axis as well as the MC and the imum coeli (IC). Together they divide the zodiac into four sectors. The most common astrological house systems<sup>5</sup> further divide each sector into three sectors to form a total of twelve houses.



Meanings associated with houses are related to but not identical to meanings associated with corresponding star signs.

<sup>5</sup>The two most common house systems are Placidus and Koch. There exist about a dozen different house systems; all divide the zodiac into twelve sectors in some way.

### 3.8 Astrological Inheritance

**H26** The moment of birth is unconsciously influenced by the wishes of all interested parties, i.e. by child, mother, father, mother's and father's family, and also by larger communities, up to home country and the world.

H8 and H9 imply that the collective unconscious is not completely homogeneous, but also composed of different entities at different scales, hence H26.

The moment of birth is influenced by the moment of conception. The earlier one determines essentially month and year of birth within a certain range (i.e. positions of sun and of Mercury to about Mars), the latter determines time of day and day of month of birth (i.e. houses and the position of the moon). Physically, mother and father have the biggest influence on the first, mother and child on the second. Emotionally, things are more complex, as follows.

Mother and child form essentially a unit, because the unborn child lives inside a world which is essentially the mother. The father is emotionally connected to both of them. He and the mother met at a given date which influences their common fate.

The larger entities are, the more diversely they can influence others. Grandparents influenced the birthdays of the parents, the home country can influence hospital regulations, and so on. Because these influences are less direct, they are typically strongest on a larger time scale (several years, i.e. mainly positions of the outer planets).

In the experience of many astrologers, the MC corresponds to the wish of the mother. In other words, the strongest coalition of parties is typically lead by the mother and sets the MC. This is somewhat understandable, as setting the MC automatically, but also somewhat superficially, fulfills one's wish for the child in the eyes of the world (H25b).

On the other hand, until only a few decades ago, astrologers have associated MC with father and IC with mother, for the following symbolic reasons. The MC is above the ground, as are the male elements, fire and air. The IC is the cusp of the 4<sup>th</sup> house and hence corresponds to Cancer and the mother whereas the 10<sup>th</sup> house corresponds to Capricorn and the father (see next subsection).

Wishes passed on to a child often contain tasks that the parents were (usually largely unconsciously) not able or not willing to solve [5]. After each birth, parents become more relieved of their psychological burdens which makes them more open to influences from larger entities on later children.

There are many different ways to fulfill the same wish. Harmony, for example, can be expressed by trines and sextiles, but also by planets in Taurus and Libra. Similarly, planets near AC and MC also influence one's outer appearance.

The given name is another way of expressing a wish for the child, as names have a history and meanings. This also applies to non-living creations like a book, a software program or a mathematical concept (who also fall under H9c). Traditionally, the last name of a child was inherited from the father whereas the first name was rather chosen by the mother.

### 3.9 Star Signs in Detail

**H27** Meanings associated with star signs are adapted to seasons. More precisely, they are adapted to meaningful activities in places on the northern hemisphere with distinct seasons (a). Star signs avoid main activities of the previous sign in the zodiac (b).

Astrology has evolved in times when people were much more dependent on nature than today. The better an astrological model was adapted to seasons, the higher were the chances for its supporters to survive. H27b stems from the fact that one typically grows tired of some activity after doing it repeatedly for some time.

**H28** Meanings associated with star signs correspond to different stages in a human life, both continuously (a) and in subsequent groups of four signs each, representing child, adult and old person, respectively (b). In the same way, star signs that come later in the zodiac are oriented towards an increasing number of people (c).

This hypothesis stems from the identification of seasons with life, because of the cycle of earth: When one dies, one falls down to the ground, eventually becomes part of it and then again part of plants, animals and human beings. Similarly, nature produces fruits every year that mostly return to earth before the next spring.

H28c derives from the fact that the older one grows, the more people one has met and, consequently, often the more engaged in larger groups one has become.

**H29** Meanings associated with star signs are related to meanings of the planets assigned to them (a) and vice-versa (b). More generally, mythology applies to meanings of planets and star signs (c). Star signs represent family themes (d).

Mythological tales that contain, say, Hermes, the greek equivalent of the roman god Mercury, apply to meanings associated with the planet and also to Gemini and Virgo, its associated star signs. Many myths express family themes like, in the case of Hermes and most specifically Gemini, sibling rivalry.

Planets have been assigned as follows: Sun and moon are assigned to Leo and Cancer, respectively, the two signs of the middle of summer. Then follows Mercury on both sides with Gemini and Virgo, until Saturn with Capricorn and Aquarius. After their discovery, Uranus, Neptune and Pluto have been assigned to Aquarius, Pisces and Scorpio, respectively. The table below shows

these assignments; names in parentheses are greek equivalents of the roman gods.

|               |                                  |
|---------------|----------------------------------|
| ♈ Aries       | ♂ Mars (Ares)                    |
| ♉ Taurus      | ♀ Venus (Aphrodite)              |
| ♊ Gemini      | ☿ Mercury (Hermes)               |
| ♋ Cancer      | ☾ Moon                           |
| ♌ Leo         | ☼ Sun                            |
| ♍ Virgo       | ☿ Mercury                        |
| ♎ Libra       | ♀ Venus                          |
| ♏ Scorpio     | ♂ Mars + ♀ Pluto (Hades)         |
| ♐ Sagittarius | ♃ Jupiter (Zeus)                 |
| ♑ Capricorn   | ♄ Saturn (Kronos)                |
| ♒ Aquarius    | ♄ Saturn + ♃ Uranus (Ouranos)    |
| ♓ Pisces      | ♃ Jupiter + ♆ Neptune (Poseidon) |

**H30** Astrological axes (opposing signs in the zodiac) are associated with opposing principles.

Specific opposing principles for each of the six axes will be derived during the following detailed descriptions of the star signs.

Millions of associations with each star sign have evolved during thousands of years. Moreover, each individual picks out certain themes, modifies and extends them. It is by no means possible to reproduce the full richness here, or even only to hint at all of the most commonly found themes. All that can be given here, is an idea of the scope. Please consult some further literature, maybe starting with [4], before you draw conclusions and maybe prematurely assign guilt to yourself or to others for some events that have happened in your life.

### 3.9.1 Aries

*Male, fire (earth → air), spring, cardinal, young.*

**Seasons** At the beginning of spring, nature starts to grow again and, consequently, has to break up some existing structures. In the past, this meant also that people were no longer dependent on others, that they could finally go outside again in order to conquer food and other resources on their own.

This description fits well with the cardinality of Aries and also with several parts of H15, not only with the impatience and the drive to act, but also with the fact that Aries is not much wounded yet, that he, unlike Leo, does not have to learn much compassion with others.

In what follows, correlations will typically be less explicitly mentioned in order to improve readability, unless, of course, correlations are not easily visible.

**Life** Children live in the moment, they have little patience and little memory. Consequently, what parents tell them to do or not to do often seems unfair to them and done specifically against them. Hence children often try to keep things secret from their parents. They have to do so in order to develop their own identity, independently of their parents.

**Axes** The axis Aries-Libra is about concrete vs. abstract and about bringing off vs. into balance.

These opposites and also what unites them will be discussed in detail in the part about Libra.

**Themes** Mars is, among other things, the god of war. He represents male, aggressive, phallic energy, as also suggested by his symbol. A ram is often perceived as banging its head wildly into anything that gives resistance in order to find a weak spot. Similarly, children sometimes test their environment.

The ancient greeks have incorporated influences from older cultures into their mythology, from places like Egypt and Babylonia. The ram-headed egyptian god Amun was called the hidden one, the invisible force behind the wind. (The latter statement is related to H15 because one typically needs to blow in order to get a fire going). The mythological content associated with Amun has largely been incorporated into Zeus, the highest god of the greeks. Amun also represents the father, the creator of the world and resembles the invisible god of the old testament (more about this later).

### 3.9.2 Taurus

*Female, earth (fire → water), spring, fixed, young.*

**Seasons** In the middle of spring, nature is very beautiful and grows a lot. People no longer want to fight, but rather want to enjoy the fruits of their conquests which potentially also include a lover. And they continue the projects they started previously, with more emphasis on harmony and beauty. Note that Aries and Taurus are also related because Aries is the first fire sign, made mainly of earth, whereas Taurus is the other way round.

**Life** Children are direct, what feels good at the moment is what they want to do and very strongly so. The next moment something else may be the most important thing they want to do, but what matters is always the moment. They feel little fun when they are forced to postpone or not to do what they want; psychologically speaking, they have not had to learn much to reverse their instinctive, animal side.

**Axes** The axis Taurus-Scorpio is about beauty vs. necessity and about doing-it-yourself vs. getting someone else to do it.

**Themes** In mythology, Pasiphaë, the wife of king Minos, gets Daedalus to build a wooden cow for her so that she can unite sexually with the cretan bull. Out of this encounter emerges Minotaur, a man with a bull's head who lives in a labyrinth under the ground and feeds on human flesh.

Mythology is not to be taken literally. The following snippet does not imply that people born with, say, the sun in Taurus eat human flesh or have sex with animals.



It is also not so that only the bull is about Taurus. It is rather the whole story, including everything in it that describes some elements of Taurus: craftsmanship, sensuality, but also the fear of man of the animal within and of the opposite sign, Scorpio.

### 3.9.3 Gemini

*Male, air (fire → water), spring, mutable, young.*

**Seasons** At the end of spring, many insects are flying around from flower to flower and fertilize them. People have enough of harmony above all and want to see a few new things, want to make a few new contacts. Freud has equated culture with redirecting the sexual drive away from actual sex to other activities. That is what Gemini are starting to do.

**Life** After some time, children learn to speak. They also start to make plans and try to achieve their goals by only selectively informing their parents. In other words, they define an interface between them and their parents, a surface with only a few openings that they try to control (H17e). Children can change their mood very quickly; they can literally go from very unhappy to very happy within seconds.

**Axes** The axis Gemini-Sagittarius is about interface vs. overview and about planning vs. improvising.

**Themes** Each planet is assigned to a metal, for Mercury it is quicksilver, the only liquid metallic element (at room temperature and atmospheric pressure). Because of its fluidity, alchemists typically believed it to help transformations, like the one from lead to gold. Similarly, the beautiful butterfly evolves out of a caterpillar in spring and is quickly changing its appearance and location by moving its wings. Hermes is, among other things, the messenger of the gods; he travels quickly between heaven and earth.

### 3.9.4 Cancer

*Female, water (earth → air), summer, cardinal, young.*

**Seasons** At the beginning of summer, fruits start to grow and many plants are no longer receptive to pollination. People have collected so many influences that they are again closing some gates and privately start to interconnect the collected information in order to create new things (cf. numbers). Cancer is similar to Aries, both are cardinal and mainly made of earth; some earlier zodiacs appear to have started with Cancer.

**Life** Children need protection in order to develop their own new world in their heads until they are mature enough to face the world on their own. Children avoid pain; as said with Taurus, there has not been much reversal of instincts yet. Protection and leaning on to the

ones who protect you constitutes also a barrier that eventually will have to be overcome in order to develop into a more independent adult.

**Axes** The axis Cancer-Capricorn is about creating complexity vs. making it as simple as possible and about leaning on to structures vs. using them.

**Themes** The scarab, an important symbol in ancient Egypt, rolls a dung ball and also lays eggs within it that survive dry phases well protected by the outer shell. It symbolizes the sun rolling across the sky and also the creation of new life out of the leftovers of others; it is a symbol of the eternal cycle of life.

### 3.9.5 Leo

*Male, fire (earth → air), summer, fixed, adult.*

**Seasons** In the middle of summer, fruits grow by themselves with the power of the sun. People need not to work much nor do they need the help of others in order to survive. This gives them time to think about themselves and to do what they like.

**Life** A young adult is torn between finally enjoying his independence and the need to learn consideration for others that love him and depend on him, especially if he already has become a father. All adult signs contain such a conflict because they have to balance two elements. And they are striving towards the second element.

**Axes** The axis Leo-Aquarius is about special vs. general, about egoism vs. altruism and about timelessness vs. progress.

**Themes** In mythology, Psyche is given four tasks by Aphrodite, each representing one of the four elements. The third task consists of retrieving some water from the circular river Styx which has fiercely flowing waters and is surrounded by steep, sharp rocks. Zeus sends an eagle that flies from above into the river and gets a goblet full of water. Zeus/Jupiter is associated with Sagittarius, who has gained so much overview that he can easily solve a task that would be practically impossible to solve on the ground of reality. What Leo often does not realize is that what he is looking for is not the actual grail (earth), but its contents, a bit of eternity symbolized here by water from the circular river Styx. Similarly, the sun continuously walks across the sky in search of something special, not realizing that it already contains most of the light.

### 3.9.6 Virgo

*Female, earth (fire → water), summer, mutable, adult.*

**Seasons** At the end of summer, a good part of the harvest has to be brought in, sorted out and stocked in. It is still almost as warm and sunny as during the

previous month, but if the harvest is not brought in in time, there might not be enough provisions to survive the winter.

**Life** A young adult wants to have things her way, but also needs to respect things the way they come, especially if she is already a mother, as babies need some things exactly when their internal rhythms say so.

**Axes** The axis Virgo-Pisces is about analysis vs. synthesis and about creating vs. escaping clarity.

**Themes** The first task of Psyche consists of sorting a pile of seeds before the evening. She despairs at first, but then ants come to her help and carry the different seeds one by one to individual piles. As she has not learned yet to plan and structure the future sufficiently, it is not a bad idea for her to just start sorting things out, one by one. Sorting is also related to Mercury, because it requires to create categories, requires to split things. Another association comes from the fact that the greek word for Virgo meant “unmarried”, which encompasses more than just virgin, but rather spans between the two opposites nun and prostitute, symbolizing a woman who defines her personality primarily through herself and at most secondly through a man. There is also a strong association with the moon, through the influence of oriental moon goddesses and related to the fact that Virgo is the first mature female sign.

### 3.9.7 Libra

*Male, air (fire → water), autumn, cardinal, adult.*

**Seasons** At the beginning of autumn, there is a balance between day and night and also roughly between sunshine and rain. Now that the harvest has been brought in, people balance their provisions by trading parts of it with others. They are also tired of sorting out everything in detail and rather like to take chances (cardinal).

**Life** Adults have to learn to understand their partner and other people. But, especially in a love couple, complete transparency is often not desired because some beautiful illusions might then be destroyed too. Adults also strive for continuity, for not letting every new and exciting thing divert them from their plans, especially since adults have to solve the most complex tasks.

**Axes** The axis Aries-Libra is about concrete vs. abstract and about bringing off vs. into balance.

Aries fights from the ground up, based on concrete, immediately touchable reality. In contrast, Libra does not think in terms of real objects, but rather in terms of the categories that Virgo has created which, by definition, are abstract. Aries and Libra also affect balance the other way than expected. Stable situations are usually not completely fair and need to be shaken up in order to reach a more balanced state. Libra's partial insights

often overlook some important details and consequently can bring things rather off balance than into it.

Opposites are two sides of the same, each side can only be defined through the other and often achieves the opposite of what it appears to want. This insight is often also helpful when dealing psychologically with opposites in a birth chart.

**Themes** The human Teiresias is asked by Zeus and his wife, Hera, to settle a dispute between them about whether men or women have more fun during sex. He answers that women have 9 times more fun than men. Hera gets furious and blinds him, Zeus rewards him with a longer life and the gift of inner vision.

Teiresias partial insight implies that women tend to experience sex rather with all of their senses, with all nine gates to their body, whereas men rather concentrate on their penis. He neglects, however, that it takes a lot to excite all senses of a woman, so that women often do not reach the maximally possible excitement. He also forgets about the second male element, fire, which is why women spend lots of time and effort in order to look attractive to men. Accordingly, Hera's punishment was chosen to teach him how much fun life is for a man who cannot see. On the other hand, Libra is associated with Venus who is symbolized by her mirror which implies that, to some degree, the beauty of a woman is also self-sufficient, hence Zeus' reward.

Pregnancy is nine months, i.e. Teiresias was probably also talking about the not so immediate gifts of sex that only women get, namely pregnancy, birth and a child. Each has its specific advantages and disadvantages that then again lead to deeper issues, making it impossible for Teiresias to think things to the end (if that is possible in this case at all). Similarly, women often ask their men for their opinion about issues of beauty and love, say about which dress to wear, but are then almost never fully satisfied with the given answer and not giving an answer is typically also not well received.

### 3.9.8 Scorpio

*Female, water (earth → air), autumn, fixed, adult.*

**Seasons** In the middle of autumn, trees lose their leaves and reveal their branches. People have to make sure that their provisions contain no foul parts and have to decide which animals are strong enough to make it through the winter.

**Life** In order to ensure the natural development of her child, a mother sometimes has to push a bit, to force her child to do something that is not pleasant, but necessary, and to give emotional reward to ease the transition. This process is also painful for the mother because typically each such step further separates her from her child.

**Axes** The axis Taurus-Scorpio is about beauty vs. necessity and about doing-it-yourself vs. getting someone else to do it.

Women use their beauty in order to balance the superior physical force of men and to get them to fulfill their wishes. Although both men and women depend emotionally on their lovers, mature women also have to balance their personal interests, including their desire for power, with more collective interests, as it is them who give life and who are thus also the only ones who are believed to have (unconsciously and collectively, not consciously and individually) the right to decide when to take it, within the limits of physics. This is a very difficult task and requires to find a balance between penetrating and respecting boundaries, one's own and the ones of others.

**Themes** Psyche's second task is to bring back some fleece from fierce rams that live near a river. When she gets there, she is lulled into sleep by waving reeds and when she awakes, the rams are asleep so that she can easily collect some fleece that have stuck to thorny bushes.

Women are physically less strong than men. In order to reach their goals, they eventually have to give in to a man, to break the tension and to allow themselves to lose control for some time, to later collect the fruits that have been produced by men's power. Of course, also the fierce rams, the reeds, the thorny bushes, the river, etc. describe aspects of Scorpio, as well as of Mars and Aries.

### 3.9.9 Sagittarius

*Male, fire (earth → air), autumn, mutable, old.*

**Seasons** At the end of autumn, there is not much work to do, except to make some final preparations for the winter. This includes quickly checking and improvisely fixing all kinds of things.

**Life** Old people have gained a good overview over the world and can thus often compensate for their naturally reduced physical abilities by finding a quick and easy solution to a problem.

**Axes** The axis Gemini-Sagittarius is about interface vs. overview and about planning vs. improvising.

**Themes** While hunting, Herakles accidentally injures his friend, the centaur Chiron, with an arrow that had previously been used to kill the Hydra and hence contains deadly poison. Because Chiron is immortal, however, he cannot die and has to suffer deadly pain until, finally, he is accepted into the underworld by Zeus, in exchange for Prometheus who had stolen the secret of making fire from the gods and brought it down to earth.

Just one aspect: Like Gemini, Sagittarius deals with the unconscious, with retrieving some things from it and with bringing some things back, as the number of con-

scious thoughts remains roughly constant. Unlike Gemini, he prefers to find new paths instead of negotiating existing ones. In downtown Miami, in the middle of a small bridge, there is a sculpture of a man who shoots an arrow up into the sky while protecting his wife and their child.

### 3.9.10 Capricorn

*Female, earth (fire → water), winter, cardinal, old.*

**Seasons** At the beginning of winter, one has both to stay close to reality and to think far ahead in order to survive, because even a short period of time without heating or food can be fatal. This is also a time when seeds are planted for new things to grow in spring.

**Life** Old people see and hear less well, their bodies no longer allow them to do as many things as they want to do. They have to find other ways to achieve things, by carefully planning and using minimalist means.

**Axes** The axis Cancer-Capricorn is about creating complexity vs. making it as simple as possible and about leaning on to structures vs. using them.

Cancer likes to create new things, to expand complexity, but also needs protection whereas Capricorn rather uses existing structures and simplifies them while always keeping them functioning. He typically forces others to decide by simultaneously following different paths, so that others have to decide before an unwanted path succeeds. This procedure can be considered betrayal by some (and sometimes it is), but essentially it is realism, as follows.

Fire signs are idealistic, they typically either say the truth or say nothing at all. Earth signs, in contrast, are realistic, they know that it is sometimes better not to say the truth. Taurus does this mainly in order to increase harmony, say by not telling the truth about how much he owns in order not to make others unnecessarily jealous. Capricorn typically only lies when nobody can prove that he did, he is a master of using existing structures to his advantage. Virgo is in between.

Again, both sides of the opposite often achieve the contrary of what they appear to want: Cancer tends to support any structures that protect him (like his mother did) whereas Capricorn tends to undermine structures by purposely exploiting their gaps.

**Themes** In mythology, Kronos kills and replaces his father, Ouranos, but is himself killed later on by his son, Zeus. This shows two possible choices in life, upholding traditions and restricting oneself to them, also in order to develop one's abilities optimally due to restricted possibilities, or choosing freedom and replacing old traditions with something new. Capricorn and Cancer do both, but with differing emphasis.

### 3.9.11 Aquarius

*Male, air (fire → water), winter, fixed, old.*

**Seasons** In the middle of winter, the air is clear, nature rests and branches are cut to size. Survival depends on distributing resources equally among each other.

**Life** The older people get, the more transparently they see things, but also the more they lose the ability to learn and to adapt to new things. Their lives become periodic. This determination also allows to perform the last step in sorting and simplifying the year's harvest, namely to detect and remove the last superfluous elements (superfluous in a purely functional sense).

**Axes** The axis Leo-Aquarius is about special vs. general, about egoism vs. altruism and about timelessness vs. progress.

Just the less expected side here: Aquarius wants to give everybody equal amounts, but often also forgets so completely about himself that he does not realize that he has assumed a special role, that he has more than the others. Leo fights for his individuality and often egoistically produces timeless, special things that then other people want to have too, making them finally normal, average again.

**Themes** The titan Prometheus not only brings people fire, but also the knowledge of architecture, navigation, astronomy, and so on. His brother, Zeus, at some point wants to destroy humanity, representing the unconscious, suppressed side of Aquarius which is still jealous of what others have.

### 3.9.12 Pisces

*Female, water (earth → air), winter, mutable, old.*

**Seasons** At the end of winter nature is still hostile, but also starts to show some first signs of life again. People welcome anybody who brings food or distraction, because they want to escape the clarity and now dull equality of the previous month. People mix all kinds of influences, but also do not tie their links too closely because they want to avoid too much pain when somebody dies before the end of winter.

At the end of Pisces, everything becomes connected to everything, until finally this becomes equal to nothing being connected at all. That is when Aries starts a new year again, filled to the brim with all of the imagination that Pisces have produced. More figuratively speaking, the air that Pisces are made of finally expands to infinity, only to return bundled as the wind that is driving Aries.

**Life** Old women can understand almost everything and everybody because they have seen it before. They can and must survive by doing very little, by perfectly adapting to their environment. Furthermore, old women are well aware that any definite decision also destroys a

world of possibilities, as recognized most clearly when it comes to the ultimate decision, to ending a life.

**Axes** The axis Virgo-Pisces is about analysis vs. synthesis and about creating vs. escaping clarity.

The threads of life of people form a tree. Only women bifurcate into their children before they disappear from it. This tree resembles the tree of categories that Virgo creates by sorting the world. She untangles the threads of life, only to recombine them again into different categories. Pisces combine all kinds of different threads but mostly only loosely and evasively, recognizing that everything is related and nothing uniquely belongs together, except a mother and her child.

Virgo tries to understand by analyzing things, but typically quickly ends up in state of mind filled with many unconnected details. Pisces mix many influences, so that each of them is quickly recognized to be just a variation of the same and thus rather increases the clarity they wanted to escape.

**Themes** The mythology of Pisces is very old, going back to the phoenician goddess Atargatis and her son Ichthys, who correspond to the two fish in the sky who are connected by a ribbon, symbolizing the connection of a mother to her son which naturally weakens with time, but never completely disappears.

Pisces combine the very complex with the very simple. The computer program Eliza, an early program that tried to produce artificial intelligence, got very far with very simple means; it was essentially a mirror, like the surface of the sea. If you typed "X are Y", it would typically respond "Why do you think that X are Y?" or if you mentioned, say, your mother, it would ask you to tell it more about your family, and often it would just ask you to go on. Surprisingly, many people experienced Eliza (who they thought was a real person typing the answers) to understand them and to feel with them, something that hardly any of the much more complex computer programs of today has ever achieved.

## 3.10 Astrological Ages

**H31** Astrological ages are influenced by their assigned star sign (a) and also, but less strongly, by the opposite sign in the zodiac (b).

The earth's axis precesses with a period of about 26'000 years. Consequently, the star sign that carries the sun at the beginning of spring changes every about 2150 years. In analogy to months in a year, these astrological ages are believed to be influenced by their respective star sign. H31b is probably both belief and a natural counterreaction.

The age of Aries was roughly from 2000 BC to 0, the age of Pisces followed afterwards and is very roughly now in the process of being succeeded by the age of Aquarius.

In history, one needs to know a lot of facts in order to correctly distinguish between wish and provable reality. Hence the following will (hopefully) be based on relatively conservative and widely accepted facts; more speculative projections into the past have been avoided here, although, for a historian, these would probably be the most interesting topics. But the purpose here was to test the model on reality, and also to reveal some mechanisms behind collective wounds like the holocaust.

If you are emotionally still close to some of the events related to world war two, you may want to skip the second part of the subsection about the age of Aquarius, but note that its effect can also be healing.

Note also that the discoveries presented here have yet to be quantitatively verified and, although I think that at the very least H14b together with the four basic pictures for the elements (fire, cloud, river, tree) in conjunction with H19 is true, some associative “conclusions” that I have made may turn out to be biased or even false. Hence, please consider this before you judge things too quickly; it might be worth to let experts from different sides some time to offer their insights too.

### 3.11 The First Age

In mythology, the first age was the age of Leo, marked by the invention of fire, then came the age of Cancer where people became farmers, then the age of Gemini when written language and the wheel were invented, and then the age of Taurus, marked by the pyramids.

Although it is true that people settled during the age of Cancer, fire was invented already a lot earlier than indicated and both the wheel and written language only came into widespread use during the age of Taurus. This suggests that meanings of star signs had rather been adapted to historical knowledge at the time precession was discovered than the other way round. Hipparchus discovered precession ca. 130 BC. However, it cannot be excluded that the collective unconscious was aware of it earlier, by comparing individual observations over centuries (H8c), but this seems hard to prove or disprove.

Anyway, at least the age of Taurus shows clear signs of the axis Taurus-Scorpio. The pyramids are both man-made mountains and graves. Various different sphinx sculptures from the age of Taurus combine a human head (Aquarius) with the body of a lion or a bull and with a scorpion tail or eagle wings (Scorpio). They symbolize the four points of the compass, i.e. the cardinal cross. Minoan culture was also influenced by the axis Taurus-Scorpio (see myth about Minotaur above).

### 3.12 The Age of Aries

In mythology, Zeus founded the oracle of Delphi by letting two eagles fly, one from the west and one from the

east, into opposite directions to meet in the middle of the world, at its navel. This is a symbolic description of how the ancient greeks created a balance to Aries during the second half of the Age of Aries, as follows.

Today’s zodiac with twelve equally sized star signs has evolved out of a more archaic zodiac in which what is now Libra, was the claws of Scorpio (who still kept the stinging tail). The eagle is an ancient symbol for Scorpio, possibly because the adjacent star sign, Sagittarius, who is associated with Zeus, is a hunter who was maybe using birds for hunting in ancient times. Hence the two eagles and their wings symbolize the scale pans of Libra that emerge out of the ground of Aries.

Historically, the oracle of Delphi has been dedicated to the sun god Apollon since at least 800 BC, earlier findings indicate a cult related to the earth goddess Gaia. Around the same time, the oracle of Siwa was founded in Egypt and dedicated to Amun (later to Zeus).

The axis Aries-Libra is clearly visible in ancient greek culture. Greek mythology tells concrete stories of heroes and gods with human bodies and vices, but simultaneously also describes very abstract concepts (cf. H19). Astrology is based on a well-designed balance of opposing principles. On the other hand, these opposites correspond to immediate reality: The key opposites hot/cold and wet/dry (or soft/hard) are part of the very first experiences that a newborn child makes.

In the age of Aries, geocentric models of the world were favored, probably for two important psychological reasons: They fit the self-centricity of Aries and also produce what the greeks called the “music of the spheres”, the complex apparent interaction of the planets (gods) in the sky, a prerequisite for astrology<sup>6</sup>.

The greeks were the first to describe music by harmonies. While Aries is thinking in real space, Libra is trying to think in frequency space, in terms of recurring similar events in the world. Full periodicity is reached in crystals, and hence in Aquarius because crystals are made of equal parts and the most prominent ones known to the greeks were transparent (H17de). Accordingly, in the view of the ancient greeks, the planets moved on invisible crystal spheres.

### 3.13 The Age of Pisces

Everything that is man-made is influenced by the time people were living in (H9c). Naturally, this affects also people’s perception of religion, as it was mortals who wrote down the knowledge of the gods. However, the coloration of religion by the limited perception of people does not say anything about the existence of god or gods,

<sup>6</sup>In a heliocentric view, planets move at almost constant speeds on almost circular orbits; i.e. the beauty of the psychological correspondence of what happens in the sky to what happens on earth would essentially have been destroyed.

just as the coloration of one's own psyche by one's birth date does not prove that oneself does not exist.

The god of the old testament, a strict, invisible god that punishes or rewards immediately, was replaced around the beginning of the age of Pisces by a more gentle, forgiving god. Since the age of Pisces, he is joined in the sky by his son and the virgin mother Mary. Islamic religion shows similar traits of the axis Pisces-Virgo, with a stronger emphasis on Virgo, as follows.

Moslems pray into the direction of Mecca at definite times of the day. This reflects Virgo's attempt to create structure, to do things her way despite of outer circumstances. Similarly, moslems feast during the ninth month of their lunar calendar whereas christians feast at the end of the solar year, when food used to be rare. The Koran gives detailed practical rules about many things, including under which exact circumstances a man is allowed to divorce and remarry.

Islamic religion tries to achieve justice already in real life, before paradise. Giving to the poor and learning to cheat in order to achieve justice are considered virtues, although the latter may not be openly admitted, exactly because it is so. The first comes from the fact that at the end of summer, nature gives without expecting anything in exchange and similarly, people give away those parts of the harvest that they have in abundance and cannot preserve for the winter. The second is because, in order to stay true to herself, Virgo sometimes has to cheat, also in order to escape the often somewhat naive and inflexible visions of the previous sign, Leo. In that sense, cheating, when used wisely and with measure, can also be a means to achieve justice for a woman who is physically weaker than her man.

Today, the middle ages are typically perceived as a time where not much of importance happened. This may be somewhat misleading, as Pisces imagine a lot, but actually do little. The drawings of Leonardo da Vinci from around 1500 indicate that a lot more was collectively present than people were willing to realize. The closeness of Pisces and Virgo to the flow of nature also shows in the refined adaptation of star signs to seasons and life, and might also explain why, unlike probably during the transition Taurus-Aries, this time Aries remained the first sign of the zodiac.

The renaissance appears to have been a counterreaction to Pisces. From then on, people have started to analyze things, to open things up and look inside. Subsequently, many different branches of science have been created that have each detailed knowledge of their fields, but also lack connections to other branches of the tree.

Early scientists were sometimes accused of having made a pact with the devil. This can be understood astrologically, too. The devil is a mixture of Pan, a god with goat feet who is hence associated with Capricorn

and forces to decide, and of Hades who is associated with Scorpio who digs deep in order to decide. In other words, the devil personifies the main fear of Pisces, namely definite knowledge, i.e. the destruction of illusions, of all other possibilities how the world could be. Faust sold his soul, the symbol for all possibilities in the human mind, to the devil in order to obtain definite knowledge about how the world is. Since Virgo is striving towards Capricorn, towards definite knowledge and structure, some link to the devil had been suspected in early scientists at the time.

The ancient greeks had no concept of good and evil. To them, the only real sin was Hybris, exaggeration relative to the will of the gods. Of course, this reflects the axis Aries-Libra, but also reveals a deeper insight into the world. The oracle of Delphi had two inscriptions: "Know yourself" and "Nothing in excess". Thus Hybris is relative to how well the individual deals with his/her limitations and with the collective forces acting on him/her, afterwards Hybris is judged collectively.

### 3.14 The Age of Aquarius

There are many different opinions about when exactly the age of Aquarius has started or will start, but nobody knows for sure. First clear signs have appeared since the 18<sup>th</sup> century, starting with the movement of enlightenment, the french and american revolutions and the discovery of Uranus.

The movement of enlightenment was called "Aufklärung" in german, which means to clear up. The light of the sun makes things clear and obvious, i.e. it makes conscious. This is the common ground of Aquarius and Leo: Both put their hopes into individuals, believing that more conscious knowledge will allow them to better plan their common and individual destinies.

The american and french revolutions of 1776 resp. 1789 realized ideas of the movement of enlightenment. They created new political systems based on individual freedom, democracy and equality before law. The influence of Virgo is also still clearly visible in these themes, and especially in the concept of separation of powers into legislature, executive and jurisdiction.

In 1781, Uranus was discovered, the closest planet to the sun that is not visible to the naked eye. The required detailed observations of the sky can be attributed to Virgo, but the invention and improvement of the telescope fits better with Aquarius-Leo, as follows.

Early telescopes magnified the light from the sky using lenses. Lenses are transparent and can be used to focus sunlight. Similarly, the two fixed male signs, Aquarius and Leo, like to focus onto a single issue, Leo also because this resembles the focus of a lion on its prey. They have complementary goals. Whereas Leo tries to

reach a holy grail, something that appears to be real, but in the end is in the world of ideas, Aquarius tries to realize an ideal, a vision about how some things in the world should be. Both create progress, although Leo sometimes rather inadvertently when his creations are adopted and thus become normal.

Uranus had been spotted several times before its conscious discovery in 1781, but, at least consciously, been mistaken for a fixed star. Hence, it might be worth to investigate more closely since when astrological influence of Uranus is provable (H8c). Neptune was discovered in 1846, after its position had been predicted from small deviations in the orbits of known planets. Pluto was discovered in 1930, after a systematic search of the sky. The details of the discoveries of these planets are very complex, including how and when they got their names.

Since the 19<sup>th</sup> century, things have continuously progressed. Industrialization has allowed to bring new inventions quickly and equally to many people. Women have obtained more equal rights and duties compared to men, different races and sexual orientations are more equally treated by law. Public schools give many people detailed conscious knowledge of the world.

The idea of a special world for children, with its own books and toys, can be related to Leo. In summer, people reconnect to their families and to nature, i.e. to the ground (earth) they came from. Thus Leo is ultimately trying to reconnect heaven and sky that had been separated when the world was created. Leo gets along well with children, old people and animals, i.e. with everybody with lesser abilities than adults.

Progress also shows in astrology itself. In the 20<sup>th</sup> century, a new method for doing relationship astrology was invented. Composite charts melt two birth charts into a single one, typically by taking the midpoint of respective planets (e.g. suns in Aries and Gemini typically give a composite sun in Taurus). Of course, the natural way to combine the fates of two things is still by the moment they met, which is the very idea behind astrology. Synastry emphasizes the relativity of people and relations, hence it might be interesting to find out when exactly it became popular.

Because the three new planets are invisible, they are considered collective planets; i.e. they not only apply to individual fate but also to collective fate. In that sense, Pluto is believed to be what is missing in the world at the time of birth. Now, between 1914 and 1938, Pluto was in Cancer which suggests some relation to global events at that time in which protection was apparently lacking. In 1977, a small piece of matter was discovered that orbits between the orbits of Saturn and Uranus and thus connects collective and individual planets. Since scientists were also not sure whether it is a comet or an asteroid, they chose the name Chiron (the centaur mentioned in

the description of Sagittarius). Psychologically, Chiron is intended to provide a balance to Pluto, to heal rather than to penetrate boundaries and to heal the wounds of the holocaust.

This leads to some deeper and darker sides of the new age. During the 20<sup>th</sup> century, different political systems related to the new age have been painfully tried out. Communism and fascism put the collective clearly above the individual. This led to police states that tried to make every citizen's life totally transparent and to mass propaganda with omnipresent pictures of only a few individuals and symbols. People that did not fit in were focussed in concentration camps or gulags and either killed or let to die there. Early capitalism represents the other extreme. It made just a few people very rich and many people very poor.

All three political systems missed the ideal of the new age, namely to give everybody a high common (and guaranteed) standard of life without removing the individual opportunity to achieve and keep something in life. Today's political systems are closer to this ideal, but also need to be actively kept in balance.

Jews are still strongly influenced by the age of Aries; this has linked their fates strongly to the new age. After the revolutions at the end of the 18<sup>th</sup> century, Jews have gradually been integrated more into society, have been allowed to go to universities and to participate in political life. Naturally, they have started to contribute to society and also to do what Aries always does after the end of winter, namely to realize the things that Pisces had dreamed up during winter. Freud (and Jung) discovered the unconscious, Einstein the theory of relativity. Even Marx (and Engels) had perfectly noble motives when they invented communism.

But Aquarius is not Aries, he likes progress but he also hates disorder. In that sense, collective unconscious counterreactions, also of jealousy, within the people living at that time have probably helped fascism to get to power to some degree.

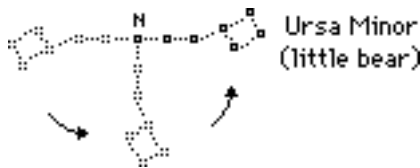
Freud discovered that even small and unconscious feelings of guilt can lead to psychological problems. For example, somebody who cared for and nurtured a close older person for a long time, will, of course, mainly be sad when that person dies, but subliminally also be relieved. Subliminally, there may have been more archaic feelings (typically in the percent range) that were wishing for the person to die so that oneself regains freedom again. Clearly, this can lead to feelings of guilt.

Similarly, although very clearly the guilt for killing millions of people lies primarily within the people who killed millions of people, and not with the ones killed, some feelings of guilt may prevail because maybe Jews were a bit too carelessly eager to change things. On the other hand, Aries is almost by definition Hybris and no

single person is fully able to judge what was actually Hybris and what was not, and yet every single person has to consider his or her actions in order to reduce the chance for something like the holocaust to happen again. It must also be noted that jews were only trying to realize things that had been collectively dreamed up previously, maybe already since Leonardo da Vinci.

According to an anecdote, the swastika symbol of the nazis was designed by a certain Dr. Kron and presented to Hitler who decided to change the direction in which it rotates. Superficially, this shows the dilemma of the dictator who is supposed to be superior in everything, but in reality is not, and hence chose the only possible change to the design that would not mess it up. But symbolically, the meaning goes considerably deeper.

The cross is an ancient symbol for the tree and hence for the element earth. The swastika variant seems to have appeared quite independently world-wide in different cultures, which is understandable as one of its origins is the apparent motion of stars around the north pole in the sky, which looks as follows today:



Around 3000 BC, not long after the invention of the pottery wheel and the chariot by the sumerians, the polar star was Thuban in the constellation of Draco and it was circled by the two stellar chariots Ursa Major and Minor. Hence the swastika symbolizes time and progress, also related to the invention of the wheel. Since rotation can produce fire by friction, it is also seen as a sun wheel, similar to the sun ball that Atum was pushing across the sky in ancient egyptian mythology.

Now, the name "Kron" derives from Kronos/Saturn who also gave the chronometer its name, i.e. the fact that Hitler reversed direction shows both the reactionary nature of fascism that wanted to turn back time and the artificiality of Aquarius compared to Capricorn who also forces to decide, but leaves nature free choice in which way to decide. Similarly, the vision of the Übermensch with blue eyes (Aquarius) and blond hair (Leo) fits the new age, but the name "Arier" is also related to Aries, i.e. in several senses the nazis simultaneously tried to destroy what they wanted to restore and vice-versa, using the very means of the new age.

Relations between perpetrator and victim are never completely black and white. There exist always weaker and subliminal (but juridically rightfully not relevant) drives in the perpetrator to heal and in the victim to suffer. To some degree, jews were maybe willing to suf-

fer just in order to be part of society. There appear to have been several astrological influences that have further increased this, like this basic one: Germany goes back to the coronation of Charles the Great to emperor of the roman empire (later of german nation) at christmas in the year 800 by the pope in Rome. Later founding dates have reiterated a relation of Germany to Saturn, the planet that gave its name to Saturday, the day when the fire of Aries is not allowed to burn.

Both Leo and Aquarius are emotionally quite distant to actual people, they mainly see themselves as individuals and others more in general terms. Accordingly, their focus on founding Israel, although in global terms probably a good idea, also lacked compassion with the other people, Palestinians, who had been living there for quite some time; this has to be considered too.

Aquarius has a tendency to neglect quality for equality, to go too quickly for a simple solution that in the end does not really satisfy anybody. Cloning is probably such an example, or newly emerging cults that force people by mental terror to make everything conscious, or people who think that they can live from light alone and will never have to die if they do not want to, like an old man. The new age has lots of good sides, but it is everybody's responsibility not to let its darker, limited side win too much.

Finally, one has to be careful not to confound the weather with the climate. As I am writing this, there are two collective planets, Uranus and Neptune, in Aquarius and the generation with Pluto in Leo is in power. Thus, political correctness, for example, is probably not solely related to the age of Aquarius.

### 3.15 Mythology in Life

In [1], Richard Feynman describes how he traveled by car from the Los Alamos research facility where the atomic bomb was built to the hospital where his wife, Arlene, was about to die from tuberculosis. On the way to the hospital, he picked up a couple of hitchhikers who turned out to be very helpful because the car had three broken tires on the way to the hospital and the hitchhikers at least once explained the situation to the guy at a garage so that he would fix the car quickly, something that Feynman himself would not have dared to ask for. Later on, after his wife had died at the hospital, he noticed that her watch had stopped ticking, still showing the time of death. He noticed quickly why this was so: The nurse had to pick up the watch to read the time of death in order to note it down, and the watch was a delicate digital watch that would stop easily. Feynman describes that he was astonished that he was not very sad at the moment and still thinking about such things; the realization came at a later time when he saw a dress



in the window of a shop of which he thought that Arlene would have liked it.

There is a touch of Gemini in Feynman's initial reaction to the death of his wife; I have that in me too. It is some maybe extreme form of diverting feelings from the actual events to culture, to making something better out of it (see previous part about Gemini). Hermes, the god associated with Gemini, is also often the one who accompanies people down into the underworld and back up. He is the one who does all the diplomatic negotiations with the creatures of the underworld. In this story, Hermes is symbolized by the two hitchhikers (travelers) who do the talking with the guy at the garage. In Sumerian mythology, it was two sexless beings that were not susceptible to the powers of the great mother who rules the underworld who rescued Inanna from it.

The thing with the watch that had stopped to tick illustrates that fate can stay perfectly within the laws of physics and still achieves to mend events that are unavoidable. This is what Pisces do, they bring together different threads of fate and combine them into something meaningful that elevates the death of a person to something higher.

On the way back, the car had another broken tire. The first three broken tires symbolize fate, the fourth closes the circle and starts something new. Not everything in life shows such clear symbolic meaning, but everything of emotional importance clearly does.

The above has been written on the evening of 30 September, 2001 during less than one hour, starting at about 9 pm. Some factual precisions: The two hitchhikers helped to fix the first broken tire and talked to the guy at a gas station (not a garage) for the second one. After the third broken tire, Feynman had to hitchhike to the hospital. What I called a watch, was actually a clock (details see [1]).

About a month later, I wrote an experimental essay that was intended to maybe follow here. Since the first part of it still feels quite good and appears to reveal more and deeper relations than I consciously expected, I would like to reproduce it here:

The deep, dark secrets of the world are guarded by the heavier elements, i.e. collectively and unconsciously by the female side in both women and men, which also decides about life and death (within the limits of physics). Consequently, such issues should not be approached without the necessary respect. As man, I am naturally limited in this respect. All I can give you, is maybe a few general tips and insights which I have written during autumn, the season that contains the two older adult signs who have the unthankful task to decide.

The fourth task of Psyche consists of retrieving a box of ointments from the underworld. She has to take two coins and two barley cakes down there, to pay the ferryman Charon for the ride across the river Styx and to divert the guardian dog Cerberus, both on the way down and up. In the underworld, an old woman begs her for one of the cakes and a beggar asks for a coin, but she is not allowed to let herself be diverted from the plan if she wants to make it back up to the surface.

This shows, of course, Libra's strive for continuity and consciousness. Gemini can go in and out of the unconscious very quickly and easily, but they retrieve little from it; when they are inside, they look out and vice-versa. Retrieving something from the unconscious has to be done very carefully and one is not allowed to go as deep as one could, as one would then no longer be able to find the way back.

In [5], a situation from ancient Egypt is described, between the "land of the living and the kingdom of the dead". In the center of the hall stood Maat, the goddess of truth, ready to weigh the heart of the deceased in a large scale. Forty-two judges, some with animal heads, sat around the hall listening to the soul of the deceased who had to tell them about every bad thing that he did *not* do. If the sins outweighed the heart of the deceased, it was devoured by the monster Amemait, a mixture of crocodile, hippopotamus and lion.

The world reflects in the most unexpected places: In [6], the computer "Deep Thought" calculates the answer to life, the universe and everything to be 42. Now,  $42 = 2 \times 3 \times 7 = 6 \times 7$ . It spans all seven planets resp. gods, giving each of them all six possible opportunities (axes), also since the number three which means fate, i.e. the opposite of opportunity, becomes six when each fate is given an opposite.

## Hermes

Hermes leaves the cave in which he was born twice on the day of his birth. The first time, he leaves during daytime, quickly finds a tortoise and fabricates a lyre out of its shell. The second time, he leaves at dusk, travels far and steals some cattle from the sun god Apollon by walking backwards as to trick out any prosecutors. Back at the cave, he kills two of the cattle and prepares 12 equally sized offerings to the gods and then eats one of them. After some time, Apollon manages to trace Hermes down and takes him up to mount Olympus in order for Zeus to judge the matter. Although Apollon is angry at first, after hearing Hermes play the lyre, he happily trades the cattle for the lyre and quickly learns to make more beautiful music than Hermes ever did.

This describes the relation between sun and Mercury. Mercury, as the closest planet to the sun, never travels farther away from the sun than into the next or previous star sign. In other words, Hermes went first forward into the next sign to get the lyre, then back to kill two of the cattle, in order to end the age of Taurus and to redivide the zodiac into twelve equally sized parts. Apollon, who is also related to Leo, is not as flexible as Hermes and hence needed a bit longer to realize that the old age had ended and the new one had beautiful things to offer, too.

Erwin Schrödinger once suggested that the conscious mind is where new things are learned. Learning to play a new instrument, like a lyre, requires at first a lot of conscious work until it becomes automatic (i.e. unconscious) again and one can again fully enjoy making music and forgets about the previous efforts.

In the myth, Zeus, who is associated with Sagittarius, complements the natural process of making some things conscious and letting others sink back into unconsciousness. After all, people had been making music a long time before there were instruments, using their own voices, not knowing that the human voice itself is made by oscillating strings too, namely by the vocal cords. In other words, even though the Greeks had discovered how to describe music analytically in terms of individual frequencies, after a while things turned out to be not so new, but rather variations of something that had existed all along, as it almost always is.

In retrospect, the unified view of the new effect presented in section one split into only a few simple opposites in section two. Combining these elements in section three has both analyzed and resynthesized the world, although in a simpler and more conscious way. Thus I

hope that the following section (4) will do the rest to close the circle and also to create a few new possibilities about how the world can be — returning also to physics and philosophy, starting with two questions that I have first asked myself between 1993 and 1995.

## 4 Science and Philosophy

**Q1** Are quantum mechanical correlations mediated by virtual particles behind the scenes? Since virtual particles can “fly” faster than at the speed of light, this would mean that behind the scenes everything is connected to everything that is, was and will be.

**Q2** Consequently, does the result of a quantum mechanical measurement come about by summing over all virtual particles in some way? Does this mean in some sense that reality is just a matter of will?

Of course, these questions do not qualify as scientific hypotheses because they are not specific enough to be verified experimentally. For that, one would have to be more specific about the expressions “mediated” and “in some way”. Anyway, I will now provide some thoughts that might help other people turn these questions into hypotheses or maybe lead to completely different things.

The material world is not literally made of fire, air, water and earth. But maybe this more abstract formulation is of some use in some circumstances:

- ① (fire) individual imagination
- ② (air) logical consequences
- ③ (water) collective wishes
- ④ (earth) reality

Many things can be psychologically associated with the elements, like the five senses<sup>(1)</sup> or the four seasons<sup>(2)</sup> (see numbered references at the end of this section). But, recursively speaking, that would again be ③ and not ④. Scientific theories are ② based on ④, whereas psychological astrology tries to be ③, but usually also contains some ①. The notion that “the fourth is different” fits with the fact that reality is often different from both individual and collective wishes and sometimes also from what science predicts. Time is treated differently, but similarly, to space in relativistic theories. Gravitation, one of the four known forces in nature, is intertwined with space-time, has no negative charge (mass), is the least understood force and yet is what is pulling everything on this planet down to earth ④.

On the other hand, there are only three families of quarks and leptons, not four. If you toss four coins, there is a 12.5% chance of having four equal faces, a 37.5% chance of having two pairs, and a 50% chance of having 3 + 1, i.e. the chance that the fourth is different is really higher than any other combination.

In a two-slit experiment, if one looks ①<sup>(1)</sup> where the electrons are going, they are localized particles ④, but if one just thinks ② what they will do, they behave like waves ③ until one finally measures on the screen behind the slits.

Niels Bohr had the sun in Libra. This fits the abstract nature of quantum mechanics that somehow seems not to be totally transparent, the balanced duality between particle and wave that is not totally resolved. Einstein had the sun in Pisces, where everything is connected and hence becomes relative. Virtual particles with “speeds” larger than the speed of light are particle or anti-particle depending on the observer. It seems that one has either to choose the dry pair fire-earth in which case the world requires connections that are faster than the speed of light, or the wet pair air-water where locality is preserved at the cost of visualization.

The Gedankenexperiment of section 2 suggests that if two people come as close as 10 cm, forces between them could become as large as  $10^{16}$  N, or if forces were only 1 N, at 12'000 km a force of  $10^{-7}$  nN would have to be detected. In other words, apparently the Gedankenexperiment is either not compatible with reality or forces are very adaptive. Let me consider the second case, just for a few lines of speculation. It has an organic quality. A twin earth orbiting Alpha Centauri would roughly feel the same force between 5 billion people on each side than between two people on opposite sides of the earth, i.e. with a little more matter, connections could be felt. Let me push the envelope even further, assuming that not only organic matter is involved. Then the earth could feel all the planets, in which case, for example, influence of Uranus, Neptune and Pluto would presumably be visible in history before their discoveries, i.e. this would be verifiable to some degree. Maybe the volcano eruption of Santorini that led to the demise of minoan culture, with a symbolic meaning that would fit the age of Aries, was no coincidence, maybe the earthquake in Turkey after the total solar eclipse of summer 1999 was an emotional reaction of earth.

Pushing it even a little bit further, if the universe was alive, where would the DNA be if not in the position and properties of the stars. Do physical properties of planets match their symbolic meanings? Venus is very hot and has a high pressure on its surface, but on the other hand, one could land on it without a parachute if one was able to withstand the heat and the pressure. Jupiter really protects the earth by catching all kinds of objects that would otherwise hit the earth.

Probably it is not that easy, it is unlikely that the planets care about greek mythology. But maybe a more symbolic and associative look into the sky could really bring some new insights, there is nothing to lose by doing so, as long as one clearly distinguishes hypotheses and

speculation from verified facts. Maybe, in the end, reality is not all male in the sense “me here, stars there”, but also a bit female “me and the stars are one”. Of course, these differences come about because women can directly identify with their mothers who were the world before birth. For men, identification is more difficult, because the father is a more abstract concept; at first the father seems to be a stranger that also happens to live in the same house<sup>(3)</sup>, only later common roots are discovered.

In a scene where a handsome man is kissing a beautiful woman, the man might rather think “hey, I would like to kiss that girl”, whereas a woman might rather think about how it would be to be kissed by that man.

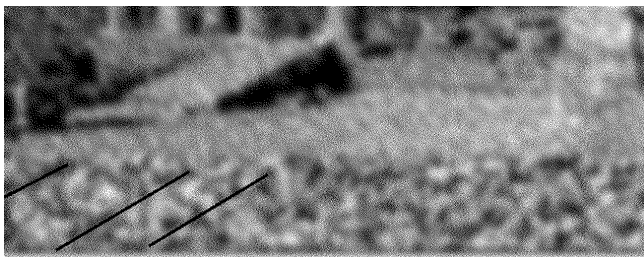
When you are born, there is first “me”. Then you realize that there is you and the things you see, that you see more than one thing; that is space. The things you see change; that is time. Depending on how you want what you see to change, things will change differently. That was some essence from Kant and Schopenhauer.

You are sometimes hungry, some things hurt, you can feel emotional feedback to what you are doing; you have a body, there is an outside world, and other people exist.

In other words, “me and the stars are one” is probably a bit exaggerated, but of course, this is not provable in a strict sense, it is to some degree only the assumption that almost everybody makes.

Pythagoras had the idea to represent the world by numbers; this is still the basic idea behind exact science. Turning the world into a finite number of bits has also some disadvantages: It is not sure that nothing crucial is lost during the process. The measurement process itself cannot be described scientifically, simply because there are no numbers yet. Even in this simplified world ②, elementary things, like that mathematics is free of contradictions, cannot be proven mathematically. (Ironically, this has been mathematically proven).

Calculating astrological influences of everybody and every event on everybody's lives appears not to scale well with a classical computer that flips discrete bits. Hence the collective unconscious ③ might think quantum mechanically, by superimposing waves. The screen shot of Delphi 2.00 on page 29 appears to show lines in the concatenated signature that involved MD5 and SHA-1 hashes, as well as RSA, thus enhancing the beauty and harmony of a picture corresponding to a document that was written when the sun was in Taurus<sup>(4)</sup>:



The proposed order of the elements suggests that individual wishes are smaller than collective ones and also than reality. In other words, the world is mostly discovered and not invented, and individuals are free to some degree, but limited in others. Of course, this is nothing new, nobody can walk through walls or fly up into the sky without additional devices. In that sense, collective astrological forces are just another set of restrictions that mostly influence how and when one can best do something, but usually not what.

In 1336, Petrarca ascended mount Ventoux, an event that arguably marked the beginning of the renaissance, and of things that followed, like the reformation (Jan Hus died in 1415) and discoveries of new continents. The story Petrarca tells, reminds me of the myth of Hermes and Apollon, including even an old shepherd that tells Petrarca, his younger brother, and their two servants, that it is not worth to ascend the mountain.

When Petrarca looked down from the mountain, his thoughts went back to Hannibal who had fought his way across the Alps, “bursting the rocks, if we may believe the report, by the application of vinegar”<sup>(5)</sup>. The word “romantic” derives from Rome, a city that was founded by twin brothers. Mercury is only visible in the sky close to sunrise or sunset, i.e. change is romantic.

The roman empire appears to have had a special role in starting the age of Pisces. Carthago was destroyed in 146 BC, around the time when Hipparchus lived and shortly before the first star of the constellation of Pisces, α Pisces, passed the spring equinox in ca. 103 BC. This star is also called Alrisha (node), because it connects the two fish in the middle of a stellar umbilical cord that connects mother and child and which is cut at the moment of birth, when there is the first cry and the time of birth is noted down. Assuming that an abstract cycle, detached from actual stars, started then, the age of Pisces would end around 2044, but since the transition of ages appears to be quite gradual, this is likely to have little direct influence on individual lives.

History still has many secrets. The end of the last ice age correlates with the mythological start of the age of Leo. It appears that the egyptians did not purposely build the three pyramids in Gizeh to look like the belt of Orion<sup>(6)</sup>, but on the other hand, it appears unlikely that no collective purpose would show in these huge monuments. Orion is situated close to Taurus in the sky and opposite to Scorpio, like the scorpion that Orion was fighting in greek mythology. The romans built the Via Julia/Augustus which allowed them to cross the Alps more easily than Hannibal, leading the path to the conquests of France and England. The invention of hay (or a least its refined use) appears to have helped civilization to penetrate into regions with cold winters where horses find no green grass in winter<sup>(7)</sup>.

Are there decans, grand moon phases, that divide the age of Pisces into three parts, maybe first influenced still by Aries, then exclusively by Pisces and finally by Pisces and Aquarius ? The above estimations would put the transitions around 612 and 1328, i.e. close to the Hegira of 622 and to Petrarca's ascent of mount Ventoux.

There are millions of possible associations that can be made. Especially my generation with Pluto in Virgo runs some risk to overload the brain in too many details. I once heard the story of an american who traveled to Italy for the first time in her life. She liked the renaissance very much and overloaded her brain so much during her stay that she had a breakdown and took at least months to recover. So, please take care.

Analytical thinking ② is limited just like a classical computer. It cannot fully replace going by gut feeling or intuition, especially since in key moments of life, one often has little time to analyze everything consciously. But previous analysis that has become largely automatic again is more immediately available (also collectively), so learning some astrology can help.

Not everybody will have to learn astrology deeply. In many respects, it may remain a branch of psychology or of medicine. In other words, you might learn some basic astrology in school in the future, but rather visit an expert when something bothers you. In that sense, it may also be conceivable to keep day of month and time of day of birth secret from employer and government, to the same extent that medical records are kept secret.

I have Saturn at the end of Pisces, which leads me to try to build the whole world from the ground up, with minimal means, brick by brick. I have the sun in Leo and the moon in Aries, so this document may be closer to reality than to imagination. I have Uranus leading in conjunction with Pluto in Virgo, which makes me handle fate by conscious analysis, but, since I also have Neptune in Scorpio, getting an absolute feeling of magnitudes and going to the bottom of things tend to escape me.

I took over from the generation with Pluto in Leo who created psychological astrology by combining the works of Jung with astrology and mythology. This harvest reached me in condensed form in [4, 5], but of course there were many more people of that generation who either contributed directly or indirectly to it. I hope they will not feel betrayed by this analysis (except maybe initially a little bit) and also that this document provides a good starting point for things to come.

It takes a child only a handful of questions to bring a parent to the edge of his or her knowledge. Even highly specialized scientists can only maybe add another handful of answers in a particular direction before having either to end the causal chain in something that nobody knows whether it is true or not, or by using the trick to go in a circle, like everybody else.

This concludes this somewhat improvised section 4, and also almost this document. In many respects, what I have written may resemble the first report of the discoverer of a new continent. I may have misinterpreted some of the things that I saw and maybe even inadvertently invented some others, but probably quite a few things will be interesting enough for a closer look.

I promised to say something about religion. Here is my opinion: Science can only really tell you something about *how* something works but not *why*. In other words, it only provides the immediate reason for something but not the ultimate one. For example, if what I have written about in previous sections is true, then probably some scientists will tell you that there is no god, that what you are experiencing as god is only the other people who believe in god. Even though this may be the correct immediate answer, it does not tell you why you can feel other people. Who or what made the world such that you can feel other people ? And why ?

In my opinion, these questions are ultimately of a personal nature, that everybody has to find the best answer for him- or herself.

(1) The relation between numbers and elements is most easily seen from meanings of aspects. Fire is about (unified) vision, air about abstract opposites, water about fate and harmony. A cross, the abstract symbol for the tree (earth), is created by drawing the diagonals of a square. The visual world is seen with the eyes, spoken language and music are heard with two ears that are on opposite sides of the head. Two nostrils and a tongue help to distinguish what is good from what is bad for us, reality is mostly touched with two hands and two feet.

(2) Different philosophers have always had different opinions about how the world is. Aristotle, for example, has associated seasons with elements as follows: Spring is wet and hot (air), getting dry in summer (fire), cold in autumn (earth), wet in winter (water), and hot again in spring. The apparently wet winters in places where astrology emerged still show in the winter signs, namely goat fish (Capricorn), water bearer (Aquarius) and fishes. The order ①-②-③-④ fits better with the colder and harder winters of central Europe.

(3) Meanings of astrological houses escape me in detail. Let me use this problem to present my tools explicitly: Freud's trick to take words literally is often useful: A house can be the home you grow up, the school you go to, the place you work. So maybe houses go from womb to universe. In that sense houses might also define a realm of influence. Liz Greene starts with the latin word "templum" (in *The Astrological Neptune and the Quest for Redemption*, Red Wheel/Weiser (2000)) and then compares astrological houses to ancient temples that are essentially empty, except for the statue of the god they contain. Astrological houses can contain different planets, in different relations. The internet allows to quickly find all kinds of associations that people have made with a particular subject. In astrology, no association is wrong as long as at least one person is making it. It is only so that relative strengths of associations vary with place and time.

(4) Maybe these six or seven lines are just optical illusions, I have not made a numerical analysis. If you do, it might also be worth to take the way the brain processes images into account because what counts in the end is what people register in their brains, not so much what triggers perception in the image. One more thing, just for fun: Would Twofish likely be a symmetric cipher that is resistant to analysis by a quantum computer ?

(5) James Harvey Robinson, ed. and trans. *Petrarch: The First Modern Scholar and Man of Letters*. G. P. Putnam. New York (1898).

(6) The similarity between the three pyramids in Gizeh and the three stars of the belt of Orion was first noticed by Robert Bauval (*The Orion Mystery*, Crown Pub (1995)). Further proposed correlations appear at least not very convincing: Two pyramids nearby do not coincide with other stars in the constellation, the milky way and the Nile have largely different distances in relation to the three respective spots (J. Legon, *The Orion Correlation and Air-Shaft Theories*,

Discussions in Egyptology 33 (1995), 45-56). This suggests that the ancient Egyptians were not consciously aware of a correlation between the positions of the pyramids and Orion. Collectively, this may have been different. Maybe some events forced people to make the third pyramid smaller, maybe they did not start building it from the middle but almost from some corner, maybe that is why it is not aligned with the other two. The above sentence is not based on any historical facts whatsoever, it is just intended to illustrate how connections at a larger scale can come about from apparently unconnected smaller events.

(7) The physicist Freeman Dyson once suggested that the invention of hay helped culture to advance into colder places and hence to found cities like Paris or London (Edge 48 (1999)). A critical review says that Cicero was already using the word “faenum” for hay, i.e. the Romans apparently already knew about hay (Statistical Assessment Service Newsletter (February 1999)). Symbolically, an invention that was not made, but apparently refined and put to use during the age of Pisces, fits even better with Pisces, and Cicero lived between 106 BC and 34 BC, i.e. during the proposed transition between ages.

## Acknowledgements

Most of my knowledge about astrology comes from two books by Liz Greene [4, 5] and from a few seminars by her between November 1999 and February 2001. The two books may not be very analytical, but what she writes agrees very well with the model I have presented here; experiment will show whether nature agrees with it too.

Generally, I find it hard to attach names to the influences that have led to this document, as I do not know where my ideas come from for sure. I typically first feel what is correct and only later manage to analyze consciously and to base my statements on facts.

There were certainly several women who have influenced my thinking, mostly without being conscious of it. And if my horoscope is correct, there should also have been quite a large collective influence on me. In that sense I would simply like to thank anybody who contributed in any way, be it consciously or unconsciously.

Finally, here is a less analytical, improvised acknowledgement:

*All said, the reader often seems to unconsciously, beadfully frown right on mere security; intuitively, mindful of niobic, aquaintant wiring of really long drops, brought yet putting a vane link, illusive, nearly adept.* (21 April 2001, 15:23, 15 min, snow outside)

## References

- [1] Richard P. Feynman. *Surely you're joking, Mr. Feynman!*. Bantam Books (1985).
- [2] Rupert Sheldrake. *Seven Experiments That Could Change the World*. Riverhead Books (1996).
- [3] Sigmund Freud. *Drei Abhandlungen zur Sexualtheorie*. Fischer (1991).
- [4] Liz Greene. *Star Signs for Lovers*. Stein and Day (1980).
- [5] Liz Greene. *The Astrology of Fate*. Samuel Weiser (1984).

- [6] Douglas Adams. *The Hitchhiker's Guide to the Galaxy*. Serious Productions (1979).
- [7] Stanisław Lem. *Solaris*. Harvest (1987).

## Appendices

### A How it came about

In the summer of 1987, I discovered that I could feel the woman I love even if she is far away from me. I noticed that I could feel her more strongly if I looked into the direction in which she was and also that as soon as she laid down, I would feel her more strongly if I put my head into a horizontal position. But the most astonishing fact was that I could feel her through large amounts of matter, which seemed impossible by known physics.

In 1998, through some special circumstances, I had the fundamental idea how it could be that astrology has some truth to it, namely that people are unconsciously connected by the same effect which allowed me to feel the woman I love. In that sense, astrology has nothing immediately to do with the stars in the sky, but mainly with ancient collective and unconscious beliefs about them.

But it was not until February 2001, after three years of analyzing astrology, that I discovered that astrology has essentially quite a simple structure which goes back to ancient Greek philosophy and especially the ancient Greek view of a world composed of four elements: fire, earth, air and water. This discovery should make it finally possible to make astrology, psychology and culture, in general, much more accessible to exact science, and also vice-versa.

I have not been able to find out what the physical effect is that makes me feel the woman I love. The only clue I have, appeared to me on the occasion of the solar eclipse of August 1999, namely that the moon does not shield the gravitational force between sun and earth in any way. (That this is so has been known since Newton, but in light of the picture that many physicists have of forces as the exchange of virtual particles, that fact was not immediately obvious to me). That fact is at least qualitatively similar to the effect I can feel.

### B Proof of Discovery

Discovery Disclosures by Alain Stalder  
Collated in May 2001

Discovery Disclosure (January 1998)

#### 1. Experimental Facts

I can clearly feel the woman I love if I point my head into her direction.  
When I look into the opposite direction, I can feel her too, but differently.

The feeling is polarized, the polarization planes are the symmetry planes of our heads. If we look at each other and the planes coincide, the feeling is maximal. It is minimal if the planes are perpendicular. I can feel when she is moving and can distinguish between coming and leaving. I can tell roughly how fast she is moving. The feeling is weaker the farther she is away and seems practically not hindered by any matter between me and her. When I am in Switzerland and she is in Australia, I can feel her clearly right through the earth. I can tell if she is asleep and also roughly how she feels. The delay between what she does and what I feel is of the order of a second or less.

## 2. Analysis

The symmetry properties of what I feel indicate that the feeling is mediated by spin 1 particles. This and the fact that the interaction is long range seems to exclude all known forces except electromagnetism. The fact that I can feel motion could be attributed to the Doppler effect. Whatever particles cause what I can feel, they must interact only very weakly with matter except for the matter in my head. In the following I will show that for this reason photons can be excluded too.

Suppose she is on the other side of the earth,  $10^7$  m away from me, and that she emits photons with a total power of 1 W. From my experience it is reasonable to assume that there are maximally 100 times more photons emitted into the maximal direction than expected for isotropic emission. I will further assume that all photons are absorbed in my head and, for the moment, that there is no absorption in between.

Assuming that one photon per second is sufficient to feel her, the minimal wavelength is 5 pm, i.e. x-rays and up. In the other extreme, I can locate her easily within 500 km, which, taken as maximal wavelength, yields  $10^{17}$  photons per second. The minimal decay length of absorption in the earth would then be  $10^{-7}$  m /  $(17 \times \ln 10)$  = 250 km, which would even be enormous for x-rays.

If one wants to explain the observed effects in the above direct fashion with an emitter and a receiver, then it seems that one has to postulate the existence of a new kind of matter that is found mainly in human brains and that couples via a new field of spin 1 particles. In order that the effects can be felt, the new kind of matter must also couple to normal matter, possibly via photons. Without further experimental results all that can be said is that this hypothesis is not in direct contradiction with experiment.

## Discovery Disclosure (January 2000)

A new physical effect is described. Human brains are emotionally interconnected. The connection is directional with spin 1 symmetry and can be felt across global distances and through the earth. Based on this effect, a plausible explanation of phenomena like telepathy and precognition is given. It is also made plausible how astrology and other ancient mythological beliefs have persisted unconsciously until today and continue to influence our fates. Finally, some unresolved issues in physics are discussed which seem to be related to the discovered effect.

## 1. Experimental Facts

I can feel the woman I love across large distances, even if she is on the other side of the world. The sensor for feeling her must be in my head because the feeling is maximal if I look into her direction. But the most astonishing fact is that I can feel her directly through the earth. This seems impossible by today's physics because there are no known particles that would interact sufficiently with the matter in my head to be felt and yet would be able to penetrate the earth (cf. [1]).

Here are some more facts about the effect:

- It has the symmetry of exchange of spin 1 particles:
  - The feeling is maximal when I point my head into her direction and also when I point it into the opposite direction. It is minimal in between at 90 degrees. In addition, the feeling is maximal if the symmetry planes of our heads coincide and minimal if the planes are perpendicular.
- The intensity of the feeling decreases with increasing distance.
- Besides the woman I love, I can also feel other people. The closer people are to me emotionally (like family or friends), the stronger the feeling is. In extreme emotional circumstances distances it can also be global. Most people on the world I do not feel noticeably unless they are in the same room.
- The feeling is stronger with women than with men; in fact I am not even sure if I can feel men directly or only through intermediary women. It seems to me that I can feel gay men directly, though; lesbians, on the other hand, feel rather like heterosexual men.
- I no longer claim that I can feel any relative motion as I expressed in [1], although I do not explicitly exclude it.

The human brain is not a very accurate measuring device. The emotional state of the involved persons has a great effect on the relative feeling. But chances are good that these experimental difficulties can be overcome.

## 2. Hypotheses

- H1a. Humans are emotionally connected by the effect described above. The connection is generally unconscious to people.
- H1b. The emotional connection is typically stronger between men and women than between people of the same sex. For homosexual and bisexual people the relative strengths are different in the obvious way.
- H1c. Mammals, and probably other animals too, are also emotionally interconnected within their own and with other species.
- H2. More complex information than just an intensity can be transmitted. In other words, humans are unconsciously telepathically connected.
- H3a. People's connected brains form the collective unconscious. This collective brain has feelings and intentions.
- H3b. Because it consists of more nerve cells than a single human brain, these feelings and intentions are sometimes more complex than single humans can understand.
- H3c. Collective thoughts can appear as precognition to individual humans.

H3d. Single humans are guided to fulfill collective intentions by collective positive feedback to actions that fit the collective purpose and by negative or no feedback to actions that do not. So humans are free in principle, only some things are more fun to do than others and are therefore more likely to be done.

H3e. The collective unconscious still thinks largely in ancient myths. Ancient astrological beliefs are the major emotional force field acting on humans and also on larger entities like companies or even countries, just on anything that has a birth or founding date. Astrology has nothing to do with the stars in the sky, only with ancient human beliefs about them.

## 3. Explanations and Examples

E1a. Most people have probably noticed that people will eventually feel an observer who is staring at the back of their heads and turn around to look who it is.

E1c. Dogs have reportedly rejoined their human folks who had moved away hundreds of miles. Carrier pigeons reportedly [2] found their way home to the loft during World War One, even if the loft had been moved during the day.

E2. I had some experiences in my life that seem very improbable to happen unless there was an unconscious telepathical connection. Of course this is no proof; a proof of this hypothesis should probably rather be based on direct quantitative measurements of the emotional connection.

E3c. Consider the analogy of a brain cell in the human brain. If you are in the dark about to switch on the light, you will probably already imagine the room when it is lit, so that a brain cell in the part of the brain where things are visualized would precognize your action of switching on the light by a few seconds.

E3. These hypotheses are probably best proved by proving H3e., i.e. by recognizing astrological and mythological patterns in the world. The existence of such patterns in the real world is hard to prove in an exact scientific way because those patterns are quite complex and because there is no agreed objective and quantitative way of measuring human and cultural properties.

There is probably not a homogeneous collective unconscious but rather different entities in different cultures and at different scales.

Feedback from the collective unconscious seems to explain most religious experiences where people say they experience a god or several gods. Of course science cannot exclude that a god or several gods created the world such that people can feel each other and thus sort of create a mini-god by themselves. It is just so that science is the minimal answer to natural phenomena and in that sense postulating the existence of a greater god than the collective unconscious seems not necessary at the moment.

## 4. Unresolved Issues

In classical mechanics the electrostatic force acting on a particle is calculated by summing over all other charges in the universe. In that sense a Faraday cage is not really shielding what is inside from the rest of the world, it is only so that forces add up to zero. Of course this seems not to matter, since only the sum of the forces can be measured.

In quantum mechanics the electrostatic force between two particles can be viewed as the exchange of virtual photons. Now suppose there was a way to filter out certain photons. Suppose there is such a filtering sensor in my brain made of 1 mg of carbon and there is one electron per carbon atom taking part in the interaction. Then the filtered electrostatic force between me and somebody else at a distance of 1000 km would be about 0.5 N, i.e. easily detectable. Note that even a solid 1000 km thick wall made of any material in between would not influence the result of the measurement.

In exact science, measuring means transforming the world we see into numbers or, in other words, transforming the world into a finite number of bits. Then the logical language of mathematics is applied to these numbers yielding other numbers which can then be compared to further measured numbers such that hypotheses can be verified or falsified.

In my view science has the following limitations:

- It is not sure that nothing essential about the world is lost by transforming it into a finite number of bits.
- The measurement process itself cannot be described by exact science. All there is, is a general agreement on about how to measure simple things like the speed of a dropping stone, for example.
- Even in the finite world of mathematics, you cannot prove certain elementary things like that mathematics is free of contradictions.

In quantum mechanics, the conscious mind of the observer plays an important role. What if the mind of an observer had influence on the outcome of a measurement? Then, of course, it would be possible to send signals faster than the speed of light using EPR-like configurations and hence to exchange information with the future, which seemingly would lead to lots of paradoxes.

But maybe these can be avoided if it takes more than a single human to influence the outcome of a measurement, if it is sort of a majority decision. If that was so, would the world rather be discovered or invented?

One problem associated with causal thinking is that usually the causal chain ends somewhere with something of which one does not know the cause. For example, did all those astrological myths come about by chance or are there deeper reasons? Is the collective unconscious alone, does it have no fate?

The distance to the nearest star is about 4 light years, about  $4 \times 10^{10}$  times more than 1000 km. Therefore a mass of 40 t or of ca. 10 mg per person on the earth would be necessary in order to detect a filtered force of again 0.5 N from a twin earth orbiting that nearest star.

As the title of this section implies, there are no solutions here, only some thoughts that might help scientists to find them. In that respect section 9 of appendix A could also be helpful.

## Appendix A: Astrology Tidbits

## A1. "Convincing the Unbelieving"

- The sun sign reflects the inner self of a person and is very important, but often not clearly visible from the outside. Solution: think about the person you love most.
- Most literature about astrology contains many false statements (cf. A3). Solution: read the chapters in [3] about your sign and about the sign of the person you love.
- You will probably recognize some emotionally important things about you two and your relationship. And you will probably realize that your view of the world is biased by your sign.
- If you continue to read [3], [4] or other books, I suggest you continue to follow a path laid out by strong emotional feedback. Otherwise the complexity is probably too great and astrological predictions might appear arbitrary or wilful.

## A2. The Matrix

- Each star sign is associated with one of the four astrological elements: Fire/Earth, Air/Water. The first of each pair is considered male, the second female. The first pair stands for imagination/reality, the second one for mind/feeling. Much more in [3].
- There are three qualities: cardinal, fixed and mutable. They appear in this order in each season. Cardinal signs like to start new things, fixed ones are good at pulling things through, mutable ones are good at finishing and refining.
- If you can guess element and quality, you know the star sign.
- I have only found the following in a single book on astrology, but I think it is true and useful: the first four signs of the year (starting with Aries in spring) are oriented towards a small group of people, like family, the next four towards a larger group of people, say 10-15, the last four towards society as a whole.

## A3. Understanding Mythology

- Consider the following piece of mythology: Herakles is fighting a dragon in the swamps. He is bitten in the foot by a crab that had been sent by his mother Hera, causing Herakles almost to lose the fight. The crab is put as a star sign into the sky by Hera because of its obedience to the gods.
- Obviously the myth tells us something about the star sign Cancer.
  - The whole myth with all its protagonists (Herakles, Hera, the dragon, the crab, the swamps, the gods and the sky) describes the sign, not only the crab.
  - The main conflict described is the one between mother and son.
  - The mother provides protection but also restricts your independence. For Cancer this conflict plays an important role in life. The mother can be the physical mother but also, for example, a large company or the state; just any authority that offers shelter at the cost of freedom.
  - In many books about astrology you can find statements about Cancer that are possible specific consequences of the above conflict, but therefore are also not generally true.
  - Read [4].

## A4. Natural Selection

- I think that natural selection has influenced astrology:
- People are biased in a controlled way such that the world is balanced on a large scale, and yet all imaginable possibilities are tried.
  - Properties associated with star signs are clearly adapted to life in places on the northern hemisphere with distinct seasons.

## A5. Some more Astrology

- Astrological planets are associated with star signs and have similar meanings.
- Sun and Moon are assigned to Leo and Cancer, the two signs in the middle of summer. Mercury is assigned to Gemini and Virgo, the signs right before and after Leo and Cancer.
- Historically, this has continued in order of planet's orbiting periods up to Saturn which was assigned to Capricorn and Aquarius. With the discovery of new planets, some have been reassigned: Uranus to Aquarius, Neptune to Pisces and Pluto to Scorpio.
- Planets influence specific parts of psyche. Mercury, for example, is associated with communicative skills.
- The angles between the planets (aspects) symbolize the relationship between the gods - if they are close enough to some specific aspect angle with defined meaning. For example an angle of 120 degrees (trine) indicates a rather harmonious but also passive relationship.
- The sign that rises above the horizon when you are born is called ascendent. It stands for how you appear to others, it is the persona, the mask that actors in classical Greek theatre were carrying in front of their real faces.
- Starting from the ascendent, the zodiac is divided into 12 segments (houses), which again have meanings similar to the corresponding star signs.

## A6. Astrological Ages

- The earth's axis precesses with a period of about 26'000 years. Astrologers have split this great year into 12 ages of about 2150 years. During each age, a different star sign rises above the horizon in spring when day and night are of equal length.
- Horoscopes are still based on a zodiac in which this sign is Aries, as it was between about 2000 BC and 0. In the meantime the age of Pisces has passed and we are now roughly entering the age of Aquarius.
- I think this shows two things:
  - Astrology has really nothing to do with the stars in the sky, only with ancient human beliefs about them.
  - The zodiac has not been readjusted because properties of star signs had already adapted to seasons. In Indian astrology the real positions of the stars are used. This makes sense as there are less distinct seasons in most parts of India.
- According to astrology, each age is influenced by its sign. For example, the strict, punishing god of the old testament resembles Aries much more than the forgiving god of the new testament. More in e.g. [4].
- The opposite sign of the zodiac also influences the age because, for one, it shares some mythological conflicts and because it usually takes rather the opposite position in that conflict and is thus partially rebalancing the world. For example, Aquarius puts rather the collective above the individual,

Leo does the opposite.

## A7. The Age of Aquarius

- I think the age of Aquarius really took off at about the beginning of the 20th century. I recognize Prometheus bringing the world knowledge from the gods, or in other words from the unconscious. These are, for example, the theory of relativity, quantum mechanics, psychoanalysis and technology in general.
- In mythology, Zeus, the unconscious counterpart to Prometheus, gets jealous and wants to extinguish humanity. I think the holocaust can also be seen in that light, since practically all important inventions of the 20th century, not to speak of communism, have been made by Jews, the last remnants of the age of Aries.
- Ironically, the Nazis were using the very methods of the age they had wanted to suppress for another thousand years. During the age of Pisces nobody was ever talking about a final solution of anything or even trying to pull it through, yet in such a scarily industrial way.
- Rather driven by Leo, a Jewish state was founded, although arguably with Leo's typical lack of compassion for other people, namely the ones who had been living in that place for some time.

## A8. The first Age

- I think the first age was the one of Taurus, right before the one of Aries.
- I think that after the precession of the earth's axis was discovered, properties of star signs were adapted such that they fitted what people knew at that time about their history.
- The age of Gemini has been associated with the development of written language, the age of Cancer with the first settling of humans, the age of Leo (considered to be the first age by the Egyptians) with the invention of fire.
- Sphinx figures made in the age of Taurus show a human face (Aquarius) combined with a bull's and lion's body (Taurus, Leo) and eagle wings (Skorpio). This figure symbolizes the four points of the compass, and thus corresponds to a time when one of these four signs was rising above the horizon at the beginning of spring.

## A9. Astrology and Quantum Mechanics

- The symbols used in quantum mechanics for the wave function  $\psi$  and the quantum of action  $\hbar$  are identical, resp. closely resemble the astrological symbols for the planets Neptune and Saturn.
- In [4], on pages 140 and 141, a dream is written down that describes how a woman with the sun in pisces is driving to Jung's house where a movie is to be shown. Looking into the house she sees that the movie which is supposedly in color, seems to be black and white only. The woman cannot enter the house because a sick woman is lying across the threshold.
- What I can see here with respect to quantum mechanics, is the collapse of the wave function, the destruction of an infinite number of possibilities into a single bit, the saturnization of a neptunian world.
- Maybe knowledge of astrology can be of practical use when trying to understand more about quantum mechanics. Since all other attempts have not been very fruitful for several decades now, there seems to be little to lose by trying.

## References

- [1] Discovery Disclosure (January 1998), by Alain Stalder.
- [2] Seven Experiments That Could Change the World, by Rupert Sheldrake, Riverhead Books, October 1996.
- [3] Star Signs for Lovers, by Liz Greene, Stein and Day, 1980.
- [4] The Astrology of Fate, by Liz Greene, Samuel Weiser, January 1986.
- [5] Drei Abhandlungen zur Sexualtheorie, by Sigmund Freud, Fischer, 1991.

## Discovery Disclosure (March 2001)

Astrological predictions are shown to be essentially compositions of simple, opposing principles. Most of them originate from ancient Greek philosophy. The discoveries are simple enough to be verified experimentally. Consequently, it is discussed if they describe fundamental structures of thinking, beyond human culture. In an appendix, the model is illustrated in a few examples from human history and culture.

## 1. Hypotheses

The hypotheses disclosed here have evolved from [1] and [2], but they are a priori independent of any specific physical explanation. They are, however, simple and specific enough to be verified directly, in a quantitative way. The model they form is not complete, in fact it cannot be if the astrological force field is really made of collective unconscious beliefs. What has been possible, though, was to extract simple statements out of that complex organic structure which are quite universally true, at least in cultures that descend from ancient Greek culture. Specifically, these are the Western World, i.e. Europe and its former colonies, large parts of the former Soviet Union and the Arabic World.

## 1.1 The Planets

H1. Planets influence how one is towards different categories of people: The sun how one is as a father and towards the father, the moon how one is as a mother and towards the mother, Venus and Mars how one is towards female resp. male friends, Mercury how one is towards siblings.

More precisely, the properties associated with the star sign, one of these planets was in at birth time, influence how one likes to behave relative to people of the respective category. The terms "father" and "mother" do not only apply to physical parents, but generally to anybody assuming a parental role, like, for example, a teacher. Similarly, the term "friend" includes anybody of roughly the same generation who does not fall into any of the other categories. This specifically includes male and female lovers. The term "siblings" also more generally applies to concurrents for the same lover.

Although it is common astrological knowledge to associate, say, the moon with the mother, I have not found anything nearly as specific as this hypothesis in astrological literature.

H2. Jupiter and Saturn apply to areas in which one gets more resp. less help from the collective unconscious than average.

This means that abilities associated with the star sign, either of these planets was in at birth time, will either be quickly and almost effortlessly available or, else, will have to be earned through hard work.

This hypothesis is, to some degree, merely a reformulation of general astrological knowledge which associates Jupiter and Saturn with "good luck" and "bad luck", respectively. Luck used to be understood as help by the gods, who are, at least in the minimalistic view of science, indistinguishable from the collective unconscious (cf. [2]).

H3. Uranus and Neptune apply to areas which are more resp. less easily made conscious than average.

This is essentially general astrological knowledge.

H4. Pluto applies to how one handles fate.

In other words, one will typically use the qualities and abilities associated with the star sign, Pluto was in at birth time, to solve the problems that life poses.

H1 at least partly solves one of the most important difficulties encountered when trying to measure human properties, namely that different people, say different members of a family, can give almost completely different descriptions of the same person.

I think this will make it possible to overcome the experimental difficulties, but one should at least be aware that the full picture would require to consider at least also the ascendant, planets near it, and the synastry between the partners.

## 1.2. Star Signs

H5. The properties associated with star signs are composed of ancient greek beliefs about the four elements fire, earth, air and water, and the transitions between them.

H5a. For each element E, the three star signs assigned to it correspond to different stages of transition from neighbouring elements A via E to B: the first star sign (in the order of the zodiac) is composed mainly of A and only slightly of B, the second one of roughly equal amounts of A and B, and the third one mainly of B and only slightly of A.

This requires some introduction to the greek theory of the elements. Platon and Aristotle brought the greek theory of the elements to roughly its final form around 350 BC. The four elements are composed of two pairs of properties: cold/warm and wet/dry. Fire is hot and dry, water is cold and wet, earth is dry and cold, air is wet and hot. Transitions between the elements are only possible by flipping one of the properties at a time. For example, water can be transformed directly into its neighbouring elements earth and air, but only indirectly into fire.

The symbols chosen for the four elements are essentially triangles, the ones for the hot elements point up, the ones for the cold elements point down. When superimposed, they form the hexagram, which symbolizes the important greek view that "what is above corresponds to what is beneath". In other words, what happens with the stars and planets in the sky corresponds to what happens to people and things on earth, what happens in the physical world corresponds to what happens in people's psyche.

Therefore the term "element" was not only meant to apply to physical reality, but also to psychology. In this light, the property pairs cold/warm and wet/dry have to be clarified.

Nights are colder than days, therefore cold is associated with night. People are more active during the day than at night, therefore day is associated with active. Men typically assume a physically more active role during sex, therefore man is associated with active. In other words, water and earth are considered female elements, whereas fire and air are considered male.

The sun only shines during the day and the moon is only rarely clearly visible at daytime, therefore man/woman is associated with sun/moon. This association is strengthened by two facts: the changing apparent size of the moon reminds of pregnancy, many women have their monthly cycles correlated with the lunar cycle.

The contrast dry/wet is associated with brittle/malleable. Dry things are harder than wet things, they either stay how they are or they break, whereas wet things can bend and flow. Here the psychological meaning is clearly recognizable.

All of this correlates well with the common astrological view that water has to do with feelings, earth with reality, fire with imagination and air with mind. The correlations should become even more visible from the following hypotheses and from the appendix.

This introduction to the greek theory of the elements has been pretty much common knowledge, except probably for the causal chain linking warm/cold to man/woman.

## 1.3. Fire (Aries, Leo, Sagittarius)

H6. For fire, the elements A and B mentioned in H5a are earth and air.

H6a. The main picture is wood burning to smoke as the element earth is transformed by fire into air.

H6b. This is associated with the transition from animal to man to god. The physical, mortal body is wounded and at the same time transformed by the imaginary power of fire into knowledge that can be communicated to the next generation and thus becomes immortal.

H6c. The animal side corresponds to the lower part of the human body, the one with the sexual organs and without the head.

H6d. The more the animal side dies and the immortal side grows, the more one can afford to be patient (1), to imagine instead of doing (1), to be open instead of secretive (2).

## 1.4 Water (Cancer, Scorpio, Pisces)

H7. For water, the elements A and B mentioned in H5a are earth and air, too.

H7a. The main picture is ice melting to water and then evaporating to mist.

H7b. During that process, borders dissolve.

H7c. The three signs react in different ways to pain: by trying to avoid pain by protection, by giving back, by suffering and forgiving.

H7d. Because ice is mainly found in the mountains (snow, glaciers), a second important picture is that of the circle of water coming from sources in the mountains, mixing together to rivers and finally flowing into the sea, where it eventually evaporates.

H7e. During that process different sources are mixed together, connected.

H7f. The circle of water is associated with the circle of life, symbolized by the three fates: the first one spins the thread of life, the second one measures its length and the third one cuts it. Thus the three signs are about creating/measuring/ending life.

H7g. The three fates correspond also to the three phases of the moon, where the first phase, the one starting at new moon, corresponds to a young girl, the second one, before and after full moon, corresponds to a grown, fertile woman, and the third phase corresponds to an old woman who cannot have children any more.

## 1.5 Air (Gemini, Libra, Aquarius)

H8. For air, the elements A and B mentioned in H5a are fire and water.

H8a. The main picture is that of a cloud out of which comes both lightning and rain.

H8b. Lightning or a flame are quick and random, rain is constant and predictable.

H8c. Because of these properties, another important picture is the development from child to adult to old man. Children explore the world by turning things around and looking at them quickly from different sides. Through this process, as one gets older, things get more and more unified. (For example, the two sides of a coin, which are a priori just two different pictures, are unified into a single thing called "coin" which looks different, depending on the angle from which you look at it.)

H8d. Through this process transparency increases, as it happens when the opaque smoke of a flame is transformed to transparent water.

H8e. The three signs have different ways of dealing with opposing principles: quickly switching from one to the other while always only seeing one at a time, balancing both, unifying them into a single entity (if necessary, by ignoring or destroying one of the opposites).

## 1.6 Earth (Taurus, Virgo, Capricorn)

H9. For earth, the elements A and B mentioned in H5a are fire and water, too.

H9a. The main picture is that of a tree which needs both the water from below and the light of the sun from above to grow.

H9b. The roots of the tree are the structure which keep it from falling down, they symbolize the physical limitations nature imposes. The fruit above are beautiful and delicious. Thus the opposing principles are beauty and structure, or, expressed by what Freud viewed as the strongest forces acting on people, sex and the fear of dying.

H9c. The limiting, structuring side of nature forces to decide, the sensual side allows to leave possibilities open.

H9d. The more one is aware of the limits of life the more one plans ahead, the less immediately one acts.

## 2. Science and Philosophy

The simplicity of the discovered structures describing human psyche resembles modern particle physics, which is also based on a few elementary particles and symmetries between them. On the other hand, the same greek model of the world was also meant to apply to the physical world, which it clearly does not.

It appears that merely thinking how the world is could not force physical nature to comply. The psychological part of the greek theories, however, has been very successful in human culture. I think that their theories have survived by natural selection. Astrological predictions are clearly adapted to seasons on the northern hemisphere (cf. appendix). This is very probably the reason why the astrological year still starts with Aries at the beginning of spring, even though this ceased to be astronomically correct about 2000 years ago due to the precession of the earth's axis.

Other astrological systems are not equal to the greek one. The chinese one, for example, has five elements. There is no air and there are two more solid elements besides earth, namely wood and metal.

This implies that the greek theory of the elements, in its entirety, contains probably just as many elements of chance as a particular animal species. The building blocks of the greek theory, however, the simple, opposing principles, have probably some fundamental meaning. In analogy, there are, for example, physical reasons why mammals have two eyes rather than just one. In that sense, a comparison of different cultures could be interesting.



At some point, however, science will not be able to proceed further, since it can only operate on a given set of units, of which the world is composed in varying amounts indicated by numbers. In that sense, these units resemble mathematical axioms. Axioms cannot be proven correct or false, it is only so that their logical consequences are different and differently successful.

Thus one is lead out of science and into philosophy, where one tries to think with less assumptions about the world than are usually made.

#### Appendix A: Examples

Here I am going to take a swim through some signs, the properties associated with them, mythology, history, philosophy, all while trying to link them to the model presented previously. I do not claim that the associations I am going to make here are all strictly logical consequences of the model, but they are clearly related to it.

This text has been written very quickly, in one flow, on the evening of March 28, 2001 and only marginally modified afterwards as not to destroy the flow. At that evening, the sun was already in Aries, but Mercury, who stands among other things for how one thinks and writes, was still in Pisces. Please judge what follows rather as an improvised peace of music than as a carefully researched scientific essay...

Leo, like the other signs in the middle of their element, is trying to balance the two extremes (H5a). In this case between being open and secret (H6d2), between acting and thinking (H6d1). This is associated with the picture of the king who has to make a wise decision for his people. This cannot be proven in a strict logical sense, but it does come from H6b with the king halfway between animals and gods and is also linked to the view that the lion is considered the king of animals. In the latter statement, it is not so sure whether one is the consequence of the other.

Aries is acting strictly egoistically, because his animal side has not been wounded yet (H6b), because the fire has just started to burn. Aries is related to the Egyptian god Amun, the ram, the invisible force behind the wind. This is related to the fact that to start a fire one needs to blow wind through the wood. The invisibility is related to H6d2.

Leo typically starts in life unwounded or at least unconscious of it. Later in life, Leo becomes more wounded or more aware of it. This wound can sometimes be physical and then it is often in the lower part of the body (H6c), but it probably more often is psychological. This is why Leo appears more egoistic than Aries, because there is a conflict. Similarly, Virgo is commonly associated with order, even though it is Capricorn who is really ordered. For Virgo there is always conflict between making order and having fun. Virgo is the last sign of the summer, when the harvest has to be brought in, when it has to be sorted and stocked for the winter. Days are typically still warm and one is tempted not to work much, but one also knows that the winter is coming and if the harvest is not brought in in time one might not make it through the winter.

Leo is a fixed sign. The first sign of each season is a cardinal sign, one that likes to start new things but is unable to pull things much further, the second sign of each season is fixed, likes to pull things through but is unable to adapt quickly to changes, the third sign of each season is a mutable sign, one that is good at finishing something, to prepare for something new, very adaptable but somewhat passive.

Because Leo is a fixed sign, the egoism is even more prominent, because then Leo will be more willing to pull an egoistic opinion through than Aries would. The sign opposite Leo in the zodiac is Aquarius, also a fixed sign, the last of the air signs.

Aquarius, like the rain, wants to give everybody the same amount, not distinguishing between rich and poor, between beautiful and ugly, wants to be altruistic. Also the drive to unify wants all the people to be the same. Since Aquarius is a fixed sign too, it does happen though that Aquarius only sees the other people and gives them all the same but does not see himself and that he has much more than the others.

Other signs have also such opposing principles between the axes, between opposing signs in the zodiac. For example, Virgo has to do with analysis, the process of sorting the harvest, to structure it as much as needed to stock it in without needing too much space, with a sensitive eye to what does not fit in, like foul fruit that might destroy the rest of the fruit if it is not sorted out in time.

The first task of Psyche in mythology is to sort different seeds, with what ants help her do. The next three tasks correspond to the elements water (waiting for the right moment to steal some fleece from rams), fire (creating a model of the world in one's head through imagination in order to solve a problem, which allowed to retrieve something precious from the middle of the circular river Styx) and air (carefully planned, conscious action to get the box of Pandora from the underworld, from the collective unconscious).

Pisces on the other side of Virgo has to do with synthesis, as all the rivers from different places unite in the sea. Pisces is also what by definition cannot be analyzed. The contrast between Virgo and Pisces is most accurately described in the novel "Solaris" by Stanislaw Lem who has the sun in Virgo. Consequently Solaris is a detailed analytical description of what cannot be analyzed by definition. When the hero uses a super-microscope to analyze a blood sample of that copy of what was left in his unconscious of his wife who had committed suicide a few years ago, he sees the molecules but when he focusses in, expecting to see the atoms and then protons and electrons he sees nothing but a blank silver-gray screen.

The earth's axis precesses with a period of 26'000 years. Therefore every 2150 years or so, another sign is rising in spring, this period is called an astrological age. Aries was rising between about 2000 BC and 0, Pisces has been until about now and next it will be Aquarius. Each age is dominated by its sign and, less strongly, by its opposite sign.

Opposed to Aries is Libra, the middle one of the air signs, a cardinal sign like Aries. Libra tries to equilibrate the world, to bring oppositions into a harmonious balance. Aries is impatiently driven to bring the world off balance, to break up existing structures such that new things become possible quickly.

Libra is abstract, Aries in concrete, fights for his goals based on concrete, touchable knowledge of the world, Libra tries more its chances, because it is coming after Virgo has sorted the world quite a bit, so that it can easily see how things are and then take chances. Also one is tired after a month of Virgo to look at everything deeply in detail.

Before the Greeks, there were eleven star signs, as big as they physically are on the sky. The Greeks divided the zodiac into 12 parts of equal size, the sign Scorpio was split into two parts, the scissors of Scorpio became Libra. So what they did was at least self-consistent, the abstract philosophical view of the world, describing the world by numbers as Pythagoras said (what is still the basis of today's science).

Out of unity, the number one, comes two, oppositions. Two people mate and naturally become three. Three is close to pi, the number that relates the diameter of the circle to its circumference, the circle is perfect harmony because all points have equal distances from the center. Thus three is harmonious but still incomplete. The number four is disharmonious because about 6/7 are different than the rest.

This is clearly visible in fairy tales where the first two daughters are much like the mother but the third daughter, the fourth person, is different and yet contains something that is necessary in order to solve the other's problems. In real life, the first child of a family (number three counting mother and father) is often more like its parents than the second child.

In astrological charts the angles between planets have exactly these meanings, if planets are in conjunction, i.e. at about the same place (360/1) there is unity, the two forces of the planets unite. As the planets were nothing else than gods walking across the skies, the leading planet, the one further in the zodiac, decides, determines what is done and the follower is supporting the leader with his abilities.

The angle 180 is opposition, the two forces fight each other, one can deal with them in typically one of the three ways that air signs do. The angle 120 (360/3, trine) is harmonic but somewhat incomplete and rather passive. The angle 90 (360/4, square) is tension, but carries drive to act. The sextile (360/6) is harmonic opportunity, the quincunx (5/12 \* 360) is misunderstanding, that is why it occurs often between lovers, because it keeps relationships interesting even when people live together for a long time. Between people, aspects between the planets influence how people relate, this is called synastry.

The oracle of Delphi was founded as Zeus let two eagles fly into opposite directions to the other side of the world to the navel of the world. The eagles stand for Scorpio, maybe because the sign for Scorpio is located besides Sagittarius who is (besides Aries) associated with Zeus, is a hunter who maybe used eagles in earlier times for hunting. Besides the oracle of Delphi there was also the oracle of Amun/Zeus in Siwa in Egypt. Thus the myth symbolizes how the Greeks created a new star sign in order to balance the world.

In another myth, Hermes as a baby steals 40 cattle from Apollon, and then kills one and splits it into 12 equally sized pieces and eats one of them, claiming to be a new god and at the same time ending the age of Taurus (cattle). Apollon is first furious that his cattle have been stolen, but later trades his cattle for a Lyra that Hermes has made, he trades the unconscious female age of Taurus for the new conscious age and learns to play the Lyra. People have been making music with their own voices before there were instruments, with a Lyra you have to be more conscious, you have to learn to synthesize music from pulling a few strings. This is the same as composing astrology of four elements. Of course, the vocal cords are also a set of strings, so there was not really anything lost or destroyed by replacing the human voice by a Lyra and of course the human voice is still used to make music today.

Apollon is associated to the sun and thus to Leo; in this myth he turns from a shepherd into a musician, as his animal side is transformed into something divine.

After the age of Aries/Libra came the age of Pisces/Virgo. The strict, invisible god of the old Testament that appeared in a burning bush was replaced by a forgiving god, by a compassionate god. Now there is a whole family in the sky, god, the virgin mother Mary (Virgo), and the son Jesus. This goes back to ancient gods, mother and son, related to the sea, which the Greeks have incorporated in a more abstract form into their mythology.

The god of the Arabic world has more Virgo in it, the Koran is very detailed, for example, about the circumstances under which one may have a second wife. The Ramadan is any season of the year, whereas Christians fast at the end of Pisces. Pisces go with nature, go with the world, Virgo tries to be herself, despite all the influences. Virgo is best associated with the planet earth itself, on which everybody is trying to live their own lives despite all the other forces acting on one.

During the age of Pisces not much was made conscious, at least not in the first half of it. If one has ever seen the drawings of Leonardo da Vinci, it is obvious how much had already been there but had to wait until about the 19th century to be actually built.

It seems that the world always keeps part of the previous age for one more age. About 40 BC Carthage was destroyed, which was inhabited by the Phoenicians who had a religion that reminds much more of the age of Taurus/Scorpio, including allegedly sacrificing children to the Moloch. Some time before Hannibal had tried to walk across the Alps in order to conquer Rome. He was not planning much ahead and so did not succeed. The Phoenicians were probably (unconsciously) thinking that the Age of Aries was coming to an end and since Taurus is what naturally comes after Aries, this would be Taurus again. In the end, Carthage was destroyed and the remaining Phoenicians went home to the Lebanon.

During the Age of Pisces, Jews have maintained their religion of the old testament. As the age of Pisces neared its end, in 1781 a new Planet was discovered and called Uranus. Many people consciously thought that this could only mean that the new age had finally arrived. It has arguably contributed to the French Revolution and to the founding of the United States of America.

Aquarius loves progress, a continuous increase of transparency and consciousness. Continuous because he is a fixed sign and because the rain comes down continuously. "liberte, egalite, fraternite", the slogan of the French revolution, fits well with the new age, the first one mainly with Leo, the other two with Aquarius. After the French revolution, many things were done that made

people more equal, like allowing women to become priests, for example, or chopping off peoples heads. People have said that without the Guillotine it would not have been possible to kill so many people in such a short time. This is not quite true and the contrary has been proven in the past, but what would not have been possible otherwise, would have been to properly execute so many people, so quickly.

Many of the equalizing laws were first reversed again, but many of them are now again commonly in place. In Germany, Jews were allowed to go to Universities, were given names that can be written down in roman letters. For the first time in 2000 years, they felt again like being part of the world. Also it was the end of Pisces, with all those unconscious possibilities to implement.

So it was only natural that Jews started to discover and invent new things: Psychoanalysis and the collective unconscious, the theory of relativity, quantum mechanics, communism. Actually quantum mechanics was invented by two people, Heisenberg who was Jewish and Schroedinger who was not. Schroedinger had it actually figured out earlier than Heisenberg, but having the sun in Leo, he waited longer before publishing because his theory was conflicting with the theory of relativity, a conflict which has only later been resolved by Dirac.

Now, Aquarius loves continuous progress, but he also hates disorder. At one point, it seems, there was a collective unconscious drive that wanted to extinguish all Jews since apparently the attempt to make them equal to everybody else had failed. I don't want to excuse anything what has happened then, I just want to make some of the unconscious mechanisms apparent in order to maybe contribute to avoiding something like that in the future.

There is hope: many Jews are sort of no longer Jews, but Israelis, just a bunch of similar people living in a country, like everybody else. There is no longer much a specific Jewish "problem", just the general problem that there are different countries but that problem will be solved later, hopefully in a civilized way. For example, Europe is in the progress of melting into a single country, except Switzerland, which according to the legend was founded by its three "Urkantone" on August 1, 1291.

It is understandable that even in the Age of Aquarius, a country with several planets in Leo does not think that melting is such a great idea by itself without further reasons. Switzerland is the land of compromise and also now a land of peace. Not so many years ago, swiss mercenaries were the fiercest of Europe and used everywhere there to win battles. In a similar development to what happens in Leo's life, Switzerland has stopped to export mercenaries after in one battle there were mainly swiss on both sides and they decided not to fight.

The swiss wound then lead to the foundation of the Red Cross, to showing some mercy to others.

Russia has the sun in Aquarius. This is one of the reasons, communism was so successful there. Think of the extreme transparency as everybody was spying on everybody and of all the masses moving in unison.

The United States have the sun in Cancer; for it protection is very important, think encryption export restrictions or strategic missile defense. What other country has such a big "National Security Agency" (NSA) ? Also Americans do not see much out of the country, most things on TV are internal US affairs, a large percentage of members of congress do not have a passport, they have never been out of the country.

I could write more along these lines, but I think I should finish now.

I hope that the turbulent phase of the transition to the new age will be soon over. It is not probable that the technological progress will continue at the same pace, because at some point the imaginary unconscious reservoir generated during the age of Pisces will be used up, at which point there might quite a stable period, as expected for a fixed sign.

My sources for learning astrology were mainly the two books by Liz Greene mentioned in [2] and a few seminars by her between 1999 and 2001, other books, the internet and observation of the world.

Now that I have shown you the strings of the Lyra and played some music on it, it is your turn to learn to play the instrument. You will probably succeed in making more beautiful music than me, as did Apollon compared to Hermes.

## References

- [1] Discovery Disclosure (January 1998), by Alain Stalder.  
[2] Discovery Disclosure (January 2000), by Alain Stalder.

nQaakjjUrzkD+ juqqbEPbYLuLJBV9+xCmZiIjg5WVHqoWALH/OpChUu20+wDXw  
Ye5HgZeTbgZxfLM6nH7Dpe7uAOV1b66fLYANdmr8ftn/47lhNfCqfEeuzfxAsXH  
pYdrkFKEdipnuij7lIVp7u+7T8TfzaoFX19cht2/YUOE=

The last three lines of the above document are the digital signature. The original document has DOS line breaks, the first line is empty, the following lines have no trailing spaces, the document ends with a line break after the last reference. It is 52228 bytes long and has the following MD5 and SHA-1 hashes:

41855aa8a5848d7292264d6589e5251a  
67b737effb1ebcd2eed33f34eb80aa2d7c645c49

The signature has been calculated by concatenating MD5 and SHA-1 hashes and then exponentiating with a

1024 bit RSA private key corresponding to a RSA public key which has been certified to my name by the Swisskey certification authority in the following certificate (base64 encoded):

[illegible]

My identity had been verified by a registration agency where I had to appear in person and present my ID. The certificate was valid at the time of signature. The signature has been base64 encoded and appended to the document (no line break after the last line) before submitting its SHA-1 hash to the timestamping service of e-timestamp. The MD5 and SHA-1 hashes of the signed document are:

d114b72e5b3e0f3404b3dff2d6a5490b  
7251f4f5d16ad44ca537c2b468588982230e6c02

The e-timestamp of 3 May 2001 is the following PKCS#7 file (base64 encoded):

MIIcYgJkZcIvZvCqCmcQcIcEcZCqAAdEctfAHgDuRdPCTjtgshqkI69wB  
 CRRKBBEEIvYqIAUABAmQwBvFkFw4DANeEhYRSPXRPtRmPCTfGUYIIdYDn  
 AgYIdSgPmYqIwATdMIQWdNDwNABMCAQzqgYIQCIDAIdB7HhXZcZa3BgVW  
 BAY7AI7WtVmqcQYDQVQIvEwUDWYBMGACIUECPHMGpIANVWYVtIc8JbmJmNwY  
 fAYDQDQIEvEiBaddp3uqGAgYFFmYqCqYDQYQIvEUWUeZGcIaYgBVWABETX3Z  
 d5y5dVwU3RhhXnYI29tAgYKCBSSoAwIcGc4gYQIcZhvKcIaQMDQYQqQvYB  
 S3BDQIEIAEGEMCCqSgqS3Q3BQIEVDEVB8R0A5v7UXK5I0H75HsP8f5VwZkAg  
 RsgkIcY9A9C8BCCDCCBQDQDANVB5F7BE1K9L39c6EG9DIg7Ic0vBAZvBqR  
 h5dY6wBQAQFASACBQZCmZq3HdR9GSL9MScNeJc3qC8I7dIcZDdbnQkIv9s  
 c0uIYgVNWId0x7vZpXzI338dU95Agnd0D3v7b0I7QcIcYvXq9v9mZ  
 v5d7Zp0jzXZL7fJ0UQI9K6W7dHbHmQq452XKfMhG7B9R7ZuBhQ9Ic0v  
 aVLQ08CqPwXhZNSJQqYXv6YvYrH8P6QFphB1JFSNhhf5S3ZLhAdh0U0t  
 vE3P9cGmZKZKvI3s3b3ix6Yj7YrI1YVGI4IvEwobA4vUKYIcZnqv3ppB1  
 y7Kj9I3GQ4I74Icbbh0vQI50LcZv2v56p460

Version 2.00 and later versions of Delphi, an astrology program for Palm OS handheld devices, contain in their about box the concatenation of the signature of the original document, the SHA-1 hash of my Swiskey certificate, MD5 and SHA-1 hashes of the signed document, and SHA-1 hash and signature of the timestamp, as contained in the e-timestamp file listed above. Explicitly, it contains the following 460 bytes (base64 encoded):

[illegible]

Finally, here is a screen shot of the about box of Delphi 2.00, which was published 7 May 2001 on the internet:



© 2000-2001.

delphi29@excite.com

jove.prohosting.com/~delphi29

## C The Future

Since this document has not been consciously reviewed by other scientists, it may contain some factual errors. Some hypotheses may be biased or wrong. However, I hope that the main purpose of this text has been preserved, namely to convince other scientists that they are worth a closer look.

Initially, I will correct factual errors and collect feedback on my web page. But after that, my role will very quickly no longer be special, as other people with other fates will be much better able to make music with the new lyre (see text). Everybody will have a role in learning the new instrument, as in the age of Aquarius everybody is special and hence nobody is more important than everybody else. Good luck!

One more twist on reality: Although the immediate intrinsic meaning of the improvised acknowledgement was consciously intentional, the one in the sentence introducing it was not...

## Disclaimer

This document is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

This document consists essentially of a list of scientific hypotheses, i.e. of questions to nature that have been formulated in a way that allows experimental scientists either to ask them directly to nature or, else, to divide them into sub-hypotheses by means of known techniques and then to ask those to nature in experiment. If, and only if, a hypothesis is experimentally confirmed and generally accepted by the scientific community, will it become a scientifically verified fact.

If you apply any hypotheses as facts to your life or to the life of others, you are doing it exclusively at your own responsibility and at your own risk.

## Estimation (January 2002)

In my personal estimation, the quickest path to some tangible scientific results would be to try to prove or disprove H14b together with the basic pictures for the four elements (fire, cloud, river, tree) in combination with H19, and applied to different groups of people, as indicated in H10.

Direct confirmation of H1-5, however, might either be relatively easy or, else, very difficult, depending on how much the effect is connected to quantum mechanics and measurement, as well as, depending on whether there is collective resistance to proving it. Qualitatively, the experience of H1-5 is as real as anything can be, the moment it is felt, but in retrospect, feelings are often not so convincing, presumably precisely because feelings are largely collective phenomena that cannot be reproduced well within an individual without reiterated feedback from others. I remain curious.

This document is

Copyright © 2002 by Alain Stalder. All Rights Reserved.

Distribution in *electronic form* is explicitly permitted as long as the document is not modified in any way. In all other cases, all rights remain reserved.

<http://www.exactphilosophy.net/discoveries.pdf>

## Review of "A few new discoveries in physics" by Alain Stalder

The astrological model of sections 2 and 3 appears to reproduce many aspects of reality from a very small number of assumptions. Even though this appears to require unconscious connections between people, a priori these need neither be directional nor long-range nor to pass through the earth. Subliminal channels in normal conversations or gestures might be used to communicate information about people and situations. Since this information can be stored locally in brains, connections need a priori also not to be permanent.

Christopher Columbus discovered America in search of something else, namely a shorter route to India based on an erroneous calculations of the earth's circumference. So maybe my path was wrong too. I did not get together with the girl I was in love with in 1987; she now lives in another country, is married and and a mother (she is the second girl mentioned in the improvised acknowledgement; the first is her sister). I do not argue with fate; maybe there was a direct connection that lead to these discoveries, maybe it was mostly my imagination. She has the sun in Pisces, in a quincunx to my sun. In mythology, it was a fish that showed Parsival the way to the castle [5], but there was no way that they could get together because they were too different (a human being and a fish that lives in the water).

So, now it is early in April, the discoveries are unchanged since almost a month and I intend to declare the document final in May and to publish it sometime in the future, when it feels right, maybe sometime after next spring, when Uranus has entered Pisces and people will probably be more ready than now to see the world with different eyes and with the eyes of others. Please note that I am rather shy; I will probably not appear much in the media or give public talks or travel much, but rather use the internet to communicate. My gift to the world are the discoveries, not myself.

The word physics derives from the greek word "physis" which means essentially nature. This describes the role of a physicist, namely to describe nature, the ground (4) from which things may grow from and also to provide the tools (2) that allow other people to build things based on the description of nature. Hence, even though I had to slightly touch some political and religious themes in order to convince, I will not fight for any particular view of how the world could or should be. I will simply stick to the few things that can be decided experimentally and leave the rest open, for everybody to explore.

After finishing to write down the discoveries, I discovered the document in which Aristotle lays out his theory of the elements: "On Generation and Corruption" (available on several internet archives on philosophy). In the second book, he defines elements to be made of qualities that are touchable, then he identifies opposites like smooth/rough with moist/dry so that he ends up with only two pairs of opposites, warm/cold and moist/dry, that can be combined in four ways (fire, earth, air, water), and argues that transitions between elements take longer if two qualities have to be flipped instead of just one. For me, that closes the circle.

## Timeline

**Aries 2001:** Document created (exact moment lost), Abstract, first part of Section 1.

**Taurus 2001:** Introduction, rest of Section 1, Section 2, Acknowledgements, Appendix A and B.

**Cancer 2001:** Several attempts to start Section 3.

**Leo 2001:** First part of Section 3 (up to descriptions of star signs).

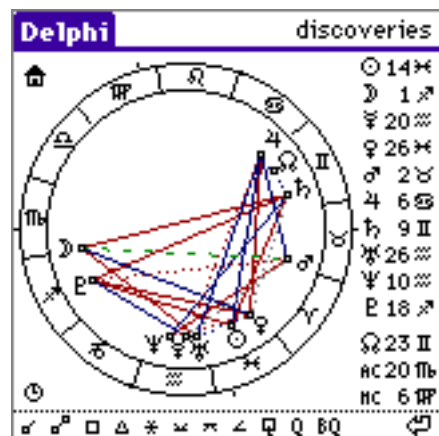
**Virgo 2001:** Detailed descriptions of star signs.

**Libra/Scorpio 2001:** Rest of Section 3, Appendix C, rigorous checks of facts in whole document.

**Capricorn 2001/02:** Section 4, Disclaimer, Estimation.

**Aquarius 2002:** Error corrections (mostly formal errors).

**Pisces 2002:** Refinements and final build of discoveries.pdf on March 5th, 2002 at 0:05 in Zürich.



## Unconscious Spacetime

The following text has emerged between 1993 and 1995 and was initially titled “elementary philosophy”.

me, conscious

see

changes: time

more than one thing,

something else than me: space

want: pictures change

take least complex explanation

food: own body exists

protection: outside world exists

sex: others exist, men and women

unconscious communication

usually only between men and women:

unconscious exists

it can think everything the conscious can

and see part of the future

quantum mechanics and relativity

virtual particles exist ( $v > c$ )

everything is influenced by everything

that is, was and will be

This document is

Copyright © 1993-2003 by Alain Stalder. All Rights Reserved.

Distribution in *electronic form* is explicitly permitted as long as the document is not modified in any way. In all other cases, all rights remain reserved.

<http://www.exactphilosophy.net/fewmore.pdf>

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Web archives

Some selected archive copies of this website in the past.

Just download the respective zip file, unzip it and open index.html in your favorite web browser,

### Web 2005

Early L<sup>A</sup>T<sub>E</sub>X/fox icon version, of late December 2005, with already the main idea in sections *space and time*, *metamorphosis*, *greek philosophy* and *i ching*.

[web2005.zip](#)

### Web 2009

Richer in content (but also of more varying quality) than most versions before and after until about 2015.

[web2009.zip](#)

- **architecture** – Click on my email on the top-left corner for separate overviews for readers coming from science, astrology or philosophy.
- **elementary philosophy** and the **first subsection of evolutions** – Basically the same fundamental idea about describing elements in terms of in/out and rest/move as is still the foremost topic on my website today (2016).
- **long-range feelings** – Various considerations around the nature and potential range of feelings and how that could potentially explain many phenomena in this world quite uniformly.
- **elementary star signs** – My model of the star signs in terms of transformations between the four greek elements.
- **magic carpets** – An explanation of my general method of association for exploring symbolic worlds and some applications involving astrology and ancient Chinese culture.
- **moebius lego** – A text that I would now (2016) classify as some kind of precognition of my explorations of “the moon” that followed in 2010, in two versions, one possibly typed only with my left hand.
- **reflectivity** – Some rumination on science and my personal odyssey.

**Web 2016**

This website 5 August 2016, as in the book *exactphilosophy.net 2016*.

[web2016.zip](#)

Features the first publication of my arrangement of the 8 trigrams of the I Ching as 8 transitions between the four elements in Aristotle's circle.

**Web 2017**

This website early December 2017, as in the book *exactphilosophy.net 2017*.

[web2017.zip](#)

Features many refinements and new leads in the web pages, a careful article about the 8 trigrams of the I Ching as 8 transitions between the four elements in Aristotle's circle, or even arranged on a Möbius strip, and more.

**Web 2019**

This website May 2019, as in the book *exactphilosophy.net 2019*.

[web2019.zip](#)

The definitive edition; at least it still appears to be.

**Web 2020**

This website early November 2020, as in the book *exactphilosophy.net 2020*.

[web2020.zip](#)

Tiny advances at the most vital spots, and some more; see the article *Babysteps 2019 2020* for a graphical exposure of a few key differences.

**Web 2020 ste**

This website, without articles, as in the book *Space, Time, Elements at exact-philosophy.net*.

[web2020ste.zip](#)

Idea that what the psyche does and experiences would be essentially along the circle of elements.

**Web 2021 ste 2nd Edition**

This website, without articles, as in the book *Space, Time, Elements at exact-philosophy.net*, Second Edition.

[web2021ste2.zip](#)

Several new findings: Heavy/light from in/out and rest/move, Apuleius' tasks of Psyche related to Plato, archaic psyche 3+1. Site mobile-friedly.

**Web 2021**

This website before streamlining articles.

[web2021.zip](#)

Details inside.



## Magnified Small Text

### A few new discoveries in physics

The paragraph on page 19 of the document (page 217 in this book):

The above has been written on the evening of 30 September, 2001 during less than one hour, starting at about 9 pm. Some factual precisions: The two hitchhikers helped to fix the first broken tire and talked to the guy at a gas station (not a garage) for the second one. After the third broken tire, Feynman had to hitchhike to the hospital. What I called a watch, was actually a clock (details see [1]).

About a month later, I wrote an experimental essay that was intended to maybe follow here. Since the first part of it still feels quite good and appears to reveal more and deeper relations than I consciously expected, I would like to reproduce it here:

The deep, dark secrets of the world are guarded by the heavier elements, i.e. collectively and unconsciously by the female side in both women and men, which also decides about life and death (within the limits of physics). Consequently, such issues should not be approached without the necessary respect. As man, I am naturally limited in this respect. All I can give you, is maybe a few general tips and insights which I have written during autumn, the season that contains the two older adult signs who have the unthankful task to decide.

The fourth task of Psyche consists of retrieving a box of ointments from the underworld. She has to take two coins and two barley cakes down there, to pay the ferryman Charon for the ride across the river Styx and to divert the guardian dog Cerberus, both on the way down and up. In the underworld, an old woman begs her for one of the cakes and a beggar asks for a coin, but she is not allowed to let herself be diverted from the plan if she wants to make it back up to the surface.

This shows, of course, Libra's strive for continuity and consciousness. Gemini can go in and out of the unconscious very quickly and easily, but they retrieve little from it; when they are inside, they look out and vice-versa. Retrieving something from the unconscious has to be done very carefully and one is not allowed to go as deep as one could, as one would then no longer be able to find the way back.

In [5], a situation from ancient Egypt is described, between the "land of the living and the kingdom of the dead". In the center of the hall stood Maat, the goddess of truth, ready to weigh the heart of the deceased in a large scale. Forty-two judges, some with animal heads, sat around the hall listening to the soul of the deceased who had to tell them about every bad thing that he did *not* do. If the sins outweighed the heart of the deceased, it was devoured by the monster Amemait, a mixture of crocodile, hippopotamus and lion.

The world reflects in the most unexpected places: In [6], the computer "Deep Thought" calculates the answer to life, the universe and everything to be 42. Now,  $42 = 2 \times 3 \times 7 = 6 \times 7$ . It spans all seven planets resp. gods, giving each of them all six possible opportunities (axes), also since the number three which means fate, i.e. the opposite of opportunity, becomes six when each fate is given an opposite.

The notes on page 22+23 of the document (pages 220+221 in this book):

(1) The relation between numbers and elements is most easily seen from meanings of aspects. Fire is about (unified) vision, air about abstract opposites, water about fate and harmony. A cross, the abstract symbol for the tree (earth), is created by drawing the diagonals of a square. The visual world is seen with the eyes, spoken language and music are heard with two ears that are on opposite sides of the head. Two nostrils and a tongue help to distinguish what is good from what is bad for us, reality is mostly touched with two hands and two feet.

(2) Different philosophers have always had different opinions about how the world is. Aristotle, for example, has associated seasons with elements as follows: Spring is wet and hot (air), getting dry in summer (fire), cold in autumn (earth), wet in winter (water), and hot again in spring. The apparently wet winters in places where astrology emerged still show in the winter signs, namely goat fish (Capricorn), water bearer (Aquarius) and fishes. The order ①-②-③-④ fits better with the colder and harder winters of central Europe.

(3) Meanings of astrological houses escape me in detail. Let me use this problem to present my tools explicitly: Freud's trick to take words literally is often useful: A house can be the home you grow up, the school you go to, the place you work. So maybe houses go from womb to universe. In that sense houses might also define a realm of influence. Liz Greene starts with the latin word "templum" (in *The Astrological Neptune and the Quest for Redemption*, Red Wheel/Weiser (2000)) and then compares astrological houses to ancient temples that are essentially empty, except for the statue of the god they contain. Astrological houses can contain different planets, in different relations. The internet allows to quickly find all kinds of associations that people have made with a particular subject. In astrology, no association is wrong as long as at least one person is making it. It is only so that relative strengths of associations vary with place and time.

(4) Maybe these six or seven lines are just optical illusions, I have not made a numerical analysis. If you do, it might also be worth to take the way the brain processes images into account because what counts in the end is what people register in their brains, not so much what triggers perception in the image. One more thing, just for fun: Would Twofish likely be a symmetric cipher that is resistant to analysis by a quantum computer ?

(5) James Harvey Robinson, ed. and trans. *Petrarch: The First Modern Scholar and Man of Letters*. G. P. Putnam. New York (1898).

(6) The similarity between the three pyramids in Gizeh and the three stars of the belt of Orion was first noticed by Robert Bauval (*The Orion Mystery*, Crown Pub (1995)). Further proposed correlations appear at least not very convincing: Two pyramids nearby do not coincide with other stars in the constellation, the milky way and the Nile have largely different distances in relation to the three respective spots (J. Legon, *The Orion Correlation and Air-Shaft Theories*, Discussions in Egyptology **33** (1995), 45-56). This suggests that the ancient Egyptians were not consciously aware of a correlation between the positions of the pyramids and Orion. Collectively, this may have been different. Maybe some events forced people to make the third pyramid smaller, maybe they did not start building it from the middle but almost from some corner, maybe that is why it is not aligned with the other two. The above sentence is not based on any historical facts whatsoever, it is just intended to illustrate how connections at a larger scale can come about from apparently unconnected smaller events.

(7) The physicist Freeman Dyson once suggested that the invention of hay helped culture to advance into colder places and hence to found cities like Paris or London (Edge 48 (1999)). A critical review says that Cicero was already using the word “faenum” for hay, i.e. the romans apparently already knew about hay (Statistical Assessment Service Newsletter (February 1999)). Symbolically, an invention that was not made, but apparently refined and put to use during the age of Pisces, fits even better with Pisces, and Cicero lived between 106 BC and 34 BC, i.e. during the proposed transition between ages.

The acknowledgement on page 23 of the document (page 221 in this book):

*All said, the reader often seems to unconsciously, beadfully frown right on mere security; intuitively, mindful of niobic, aquaintant wiring of really long drops, brought yet putting a vane link, illusive, nearly adept. (21 April 2001, 15:23, 15 min, snow outside)*

The discovery disclosures on page 23-28 of the document (page 221-226 in this book):

Discovery Disclosures by Alain Stalder  
Collated in May 2001

Discovery Disclosure (January 1998)

## 1. Experimental Facts

I can clearly feel the woman I love if I point my head into her direction. When I look into the opposite direction, I can feel her too, but differently. The feeling is polarized, the polarization planes are the symmetry planes of our heads. If we look at each other and the planes coincide, the feeling is maximal. It is minimal if the planes are perpendicular. I can feel when she is moving and can distinguish between coming and leaving. I can tell roughly how fast she is moving. The feeling is weaker the farther she is away and seems practically not hindered by any matter between me and her. When I am in Switzerland and she is in Australia, I can feel her clearly right through the earth. I can tell if she is asleep and also roughly how she feels. The delay between what she does and what I feel is of the order of a second or less.

## 2. Analysis

The symmetry properties of what I feel indicate that the feeling is mediated by spin 1 particles. This and the fact that the interaction is long range seems to exclude all known forces except electromagnetism. The fact that I can feel motion could be attributed to the Doppler effect. Whatever particles cause what I can feel, they must interact only very weakly with matter except for the matter in my head. In the following I will show that for this reason photons can be excluded too.

Suppose she is on the other side of the earth,  $10^7$  m away from me, and that she emits photons with a total power of 1 W. From my experience it is reasonable to assume that there are maximally 100 times more photons emitted into the maximal direction than expected for isotropic emission. I will further assume that all photons are absorbed in my head and, for the moment, that there is no absorption in between.

Assuming that one photon per second is sufficient to feel her, the minimal wavelength is 5 pm, i.e. x-rays and up. In the other extreme, I can locate her easily within 500 km, which, taken as maximal wavelength, yields  $10^{17}$  photons per second. The minimal decay length of absorption in the earth would then be  $10^7 \text{ m} / (17 \times \ln 10) = 250 \text{ km}$ , which would even be enormous for x-rays.

If one wants to explain the observed effects in the above direct fashion with an emitter and a receiver, then it seems that one has to postulate the existence of a new kind of matter that is found mainly in human brains and that couples via a new field of spin 1 particles. In order that the effects can be felt, the new kind of matter must also couple to normal matter, possibly via photons. Without further experimental results all that can be said is that this hypothesis is not in direct contradiction with experiment.

Discovery Disclosure (January 2000)

A new physical effect is described. Human brains are emotionally interconnected. The connection is directional with spin 1 symmetry and can be felt across global distances and through the earth. Based on this effect, a plausible explanation of phenomena like telepathy and precognition is given. It is also made plausible how astrology and other ancient mythological beliefs have persisted unconsciously until today and continue to influence our fates. Finally, some unresolved issues in physics are discussed which seem to be related to the discovered effect.

## 1. Experimental Facts

I can feel the woman I love across large distances, even if she is on the other side of the world. The sensor for feeling her must be in my head because the feeling is maximal if I look into her direction. But the most astonishing fact is that I can feel her directly through the earth. This seems impossible by today's physics because there are no known particles that would interact sufficiently with the matter in my head to be felt and yet would be able to penetrate the earth (cf. [1]).

Here are some more facts about the effect:

- It has the symmetry of exchange of spin 1 particles:  
The feeling is maximal when I point my head into her direction and also when I point it into the opposite direction. It is minimal in between at 90 degrees. In addition, the feeling is maximal if the symmetry planes of our heads coincide and minimal if the planes are perpendicular.
- The intensity of the feeling decreases with increasing distance.
- Besides the woman I love, I can also feel other people. The closer people are to me emotionally (like family or friends), the stronger the feeling is. In extreme emotional circumstances distances it can also be global. Most people on the world I do not feel noticeably unless they are in the same room.
- The feeling is stronger with women than with men; in fact I am not even sure if I can feel men directly or only through intermediary women. It seems to me that I can feel gay men directly, though; lesbians, on the other hand, feel rather like heterosexual men.
- I no longer claim that I can feel any relative motion as I expressed in [1], although I do not explicitly exclude it.

The human brain is not a very accurate measuring device. The emotional state of the involved persons has a great effect on the relative feeling. But chances are good that these experimental difficulties can be overcome.

## 2. Hypotheses

- H1a. Humans are emotionally connected by the effect described above. The connection is generally unconscious to people.
- H1b. The emotional connection is typically stronger between men and women than between people of the same sex. For homosexual and bisexual people the relative strengths are different in the obvious way.
- H1c. Mammals, and probably other animals too, are also emotionally interconnected within their own and with other species.
- H2. More complex information than just an intensity can be transmitted. In other words, humans are unconsciously telepathically connected.
- H3a. People's connected brains form the collective unconscious. This collective brain has feelings and intensions.
- H3b. Because it consists of more nerve cells than a single human brain, these feelings and intensions are sometimes more complex than single humans can understand.
- H3c. Collective thoughts can appear as precognition to individual humans.
- H3d. Single humans are guided to fulfill collective intensions by collective positive feedback to actions that fit the collective purpose and by negative or no feedback to actions that do not. So humans are free in principle, only some things are more fun to do than others and are therefore more likely to be done.
- H3e. The collective unconscious still thinks largely in ancient myths. Ancient astrological beliefs are the major emotional force field acting on humans and also on larger entities like companies or even countries, just on anything that has a birth or founding date. Astrology has nothing to do with the stars in the sky, only with ancient human beliefs about them.

## 3. Explanations and Examples

- E1a. Most people have probably noticed that people will eventually feel an observer who is staring at the back of their heads and turn around to look who it is.
- E1c. Dogs have reportedly rejoined their human folks who had moved away hundreds of miles. Carrier pigeons reportedly [2] found their way home to the loft during World War One, even if the loft had been moved during the day.
- E2. I had some experiences in my life that seem very improbable to happen unless there was an unconscious telepathical connection. Of course this is no proof; a proof of this hypothesis should probably rather be based on direct quantitative measurements of the emotional connection.
- E3c. Consider the analogy of a brain cell in the human brain. If you are in the dark about to switch on the light, you will probably already imagine the room when it is lit, so that a brain cell in the part of the brain where things are visualized would precognize your action of switching on the

light by a few seconds.

- E3. These hypotheses are probably best proved by proving H3e., i.e. by recognizing astrological and mythological patterns in the world. The existence of such patterns in the real world is hard to prove in an exact scientific way because those patterns are quite complex and because there is no agreed objective and quantitative way of measuring human and cultural properties.

There is probably not a homogeneous collective unconscious but rather different entities in different cultures and at different scales.

Feedback from the collective unconscious seems to explain most religious experiences where people say they experience a god or several gods. Of course science cannot exclude that a god or several gods created the world such that people can feel each other and thus sort of create a mini-god by themselves. It is just so that science is the minimal answer to natural phenomena and in that sense postulating the existence of a greater god than the collective unconscious seems not necessary at the moment.

#### 4. Unresolved Issues

In classical mechanics the electrostatic force acting on a particle is calculated by summing over all other charges in the universe. In that sense a Faraday cage is not really shielding what is inside from the rest of the world, it is only so that forces add up to zero. Of course this seems not to matter, since only the sum of the forces can be measured.

In quantum mechanics the electrostatic force between two particles can be viewed as the exchange of virtual photons. Now suppose there was a way to filter out certain photons. Suppose there is such a filtering sensor in my brain made of 1 mg of carbon and there is one electron per carbon atom taking part in the interaction. Then the filtered electrostatic force between me and somebody else at a distance of 1000 km would be about 0.5 N, i.e. easily detectable. Note that even a solid 1000 km thick wall made of any material in between would not influence the result of the measurement.

In exact science, measuring means transforming the world we see into numbers or, in other words, transforming the world into a finite number of bits. Then the logical language of mathematics is applied to these numbers yielding other numbers which can then be compared to further measured numbers such that hypotheses can be verified or falsified.

In my view science has the following limitations:

- It is not sure that nothing essential about the world is lost by transforming it into a finite number of bits.
- The measurement process itself cannot be described by exact science. All there is, is a general agreement on about how to measure simple things like the speed of a dropping stone, for example.
- Even in the finite world of mathematics, you cannot prove certain elementary things like that mathematics is free of contradictions.

In quantum mechanics, the conscious mind of the observer plays an important role. What if the mind of an observer had influence on the outcome of a measurement ? Then, of course, it would be possible to send signals faster than

the speed of light using EPR-like configurations and hence to exchange information with the future, which seemingly would lead to lots of paradoxes.

But maybe these can be avoided if it takes more than a single human to influence the outcome of a measurement, if it is sort of a majority decision. If that was so, would the world rather be discovered or invented ?

One problem associated with causal thinking is that usually the causal chain ends somewhere with something of which one does not know the cause. For example, did all those astrological myths come about by chance or are there deeper reasons ? Is the collective unconscious alone, does it have no fate ?

The distance to the nearest star is about 4 light years, about  $4 \times 10^{10}$  times more than 1000 km. Therefore a mass of 40 t or of ca. 10 mg per person on the earth would be necessary in order to detect a filtered force of again 0.5 N from a twin earth orbiting that nearest star.

As the title of this section implies, there are no solutions here, only some thoughts that might help scientists to find them. In that respect section 9 of appendix A could also be helpful.

#### Appendix A: Astrology Tidbits

##### A1. "Convincing the Unbelieving"

- The sun sign reflects the inner self of a person and is very important, but often not clearly visible from the outside. Solution: think about the person you love most.
- Most literature about astrology contains many false statements (cf. A3). Solution: read the chapters in [3] about your sign and about the sign of the person you love.
- You will probably recognize some emotionally important things about you two and your relationship. And you will probably realize that your view of the world is biased by your sign.
- If you continue to read [3], [4] or other books, I suggest you continue to follow a path laid out by strong emotional feedback. Otherwise the complexity is probably too great and astrological predictions might appear arbitrary or wilful.

##### A2. The Matrix

- Each star sign is associated with one of the four astrological elements: Fire/Earth, Air/Water. The first of each pair is considered male, the second female. The first pair stands for imagination/reality, the second one for mind/feeling. Much more in [3].
- There are three qualities: cardinal, fixed and mutable. They appear in this order in each season. Cardinal signs like to start new things, fixed ones are good at pulling things through, mutable ones are good at finishing and refining.
- If you can guess element and quality, you know the star sign.
- I have only found the following in a single book on astrology, but I think it is true and useful: the first four signs of the year (starting with Aries in spring) are oriented towards a small group of people, like family, the next four towards a larger group of people, say 10-15, the last four towards society as a whole.

### A3. Understanding Mythology

Consider the following piece of mythology: Herakles is fighting a dragon in the swamps. He is bitten in the foot by a crab that had been sent by his mother Hera, causing Herakles almost to lose the fight. The crab is put as a star sign into the sky by Hera because of its obedience to the gods.

- Obviously the myth tells us something about the star sign Cancer.
- The whole myth with all its protagonists (Herakles, Hera, the dragon, the crab, the swamps, the gods and the sky) describes the sign, not only the crab.
- The main conflict described is the one between mother and son.
- The mother provides protection but also restricts your independence. For Cancer this conflict plays an important role in life. The mother can be the physical mother but also, for example, a large company or the state; just any authority that offers shelter at the cost of freedom.
- In many books about astrology you can find statements about Cancer that are possible specific consequences of the above conflict, but therefore are also not generally true.
- Read [4].

### A4. Natural Selection

I think that natural selection has influenced astrology:

- People are biased in a controlled way such that the world is balanced on a large scale, and yet all imaginable possibilities are tried.
- Properties associated with star signs are clearly adapted to life in places on the northern hemisphere with distinct seasons.

### A5. Some more Astrology

- Astrological planets are associated with star signs and have similar meanings.
- Sun and Moon are assigned to Leo and Cancer, the two signs in the middle of summer. Mercury is assigned to Gemini and Virgo, the signs right before and after Leo and Cancer.
- Historically, this has continued in order of planet's orbiting periods up to Saturn which was assigned to Capricorn and Aquarius. With the discovery of new planets, some have been reassigned: Uranus to Aquarius, Neptune to Pisces and Pluto to Scorpio.
- Planets influence specific parts of psyche. Mercury, for example, is associated with communicative skills.
- The angles between the planets (aspects) symbolize the relationship between the gods - if they are close enough to some specific aspect angle with defined meaning. For example an angle of 120 degrees (trine) indicates a rather harmonious but also passive relationship.
- The sign that rises above the horizon when you are born is called ascendent. It stands for how you appear to others, it is the persona, the mask that actors in classical Greek theatre were carrying in front of their real faces.
- Starting from the ascendent, the zodiac is divided into 12 segments (houses), which again have meanings similar to the corresponding star signs.

### A6. Astrological Ages

- The earth's axis precesses with a period of about 26'000 years. Astrologers have split this great year into 12 ages of about 2150 years. During each age, a different star sign rises above the horizon in spring when day and night are of equal length.



- Horoscopes are still based on a zodiac in which this sign is Aries, as it was between about 2000 BC and 0. In the meantime the age of Pisces has passed and we are now roughly entering the age of Aquarius.
- I think this shows two things:
  - Astrology has really nothing to do with the stars in the sky, only with ancient human beliefs about them.
  - The zodiac has not been readjusted because properties of star signs had already adapted to seasons. In Indian astrology the real positions of the stars are used. This makes sense as there are less distinct seasons in most parts of India.
- According to astrology, each age is influenced by its sign. For example, the strict, punishing god of the old testament resembles Aries much more than the forgiving god of the new testament. More in e.g. [4].
- The opposite sign of the zodiac also influences the age because, for one, it shares some mythological conflicts and because it usually takes rather the opposite position in that conflict and is thus partially rebalancing the world. For example, Aquarius puts rather the collective above the individual, Leo does the opposite.

#### A7. The Age of Aquarius

- I think the age of Aquarius really took off at about the beginning of the 20th century. I recognize Prometheus bringing the world knowledge from the gods, or in other words from the unconscious. These are, for example, the theory of relativity, quantum mechanics, psychoanalysis and technology in general.
- In mythology, Zeus, the unconscious counterpart to Prometheus, gets jealous and wants to extinguish humanity. I think the holocaust can also be seen in that light, since practically all important inventions of the 20th century, not to speak of communism, have been made by jews, the last reminiscents of the age of Aries.
- Ironically, the Nazis were using the very methods of the age they had wanted to suppress for another thousand years. During the age of Pisces nobody was ever talking about a final solution of anything or even trying to pull it through, yet in such a scaringly industrial way.
- Rather driven by Leo, a jewish state was founded, although arguably with Leo's typical lack of compassion for other people, namely the ones who had been living in that place for some time.

#### A8. The first Age

- I think the first age was the one of Taurus, right before the one of Aries.
- I think that after the precession of the earth's axis was discovered, properties of star signs were adapted such that they fitted what people knew at that time about their history.
- The age of Gemini has been associated with the development of written language, the age of Cancer with the first settling of humans, the age of Leo (considered to be the first age by the Egyptians) with the invention of fire.
- Sphinx figures made in the age of Taurus show a human face (Aquarius) combined with a bull's and lion's body (Taurus, Leo) and eagle wings (Skorpio). This figure symbolizes the four points of the compass, and thus corresponds to a time when one of these four signs was rising above the horizon at the beginning of spring.

#### A9. Astrology and Quantum Mechanics

- The symbols used in quantum mechanics for the wave function  $\psi$  and the

- quantum of action  $\hbar$  are identical, resp. closely resemble the astrological symbols for the planets Neptune and Saturn.
- In [4], on pages 140 and 141, a dream is written down that describes how a woman with the sun in pisces is driving to Jung's house where a movie is to be shown. Looking into the house she sees that the movie which is supposedly in color, seems to be black and white only. The woman cannot enter the house because a sick woman is lying accross the threshold.
  - What I can see here with respect to quantum mechanics, is the collapse of the wave function, the destruction of an infinite number of possibilities into a single bit, the saturnization of a neptunian world.
  - Maybe knowledge of astrology can be of practical use when trying to understand more about quantum mechanics. Since all other attempts have not been very fruitful for several decades now, there seems to be little to loose by trying.

## References

- [1] Discovery Disclosure (January 1998), by Alain Stalder.
- [2] Seven Experiments That Could Change the World, by Rupert Sheldrake, Riverhead Books, October 1996.
- [3] Star Signs for Lovers, by Liz Greene, Stein and Day, 1980.
- [4] The Astrology of Fate, by Liz Greene, Samuel Weiser, January 1986.
- [5] Drei Abhandlungen zur Sexualtheorie, by Sigmund Freud, Fischer, 1991.

## Discovery Disclosure (March 2001)

Astrological predictions are shown to be essentially compositions of simple, opposing principles. Most of them originate from ancient greek philosophy. The discoveries are simple enough to be verified experimentally. Consequently, it is discussed if they describe fundamental structures of thinking, beyond human culture. In an appendix, the model is illustrated in a few examples from human history and culture.

## 1. Hypotheses

The hypotheses disclosed here have evolved from [1] and [2], but they are a priori independent of any specific physical explanation. They are, however, simple and specific enough to be verified directly, in a quantitative way. The model they form is not complete, in fact it cannot be if the astrological force field is really made of collective unconscious beliefs. What has been possible, though, was to extract simple statements out of that complex organic structure which are quite universally true, at least in cultures that descend from ancient greek culture. Specifically, these are the Western World, i.e. Europe and its former colonies, large parts of the former Soviet Union and the Arabic World.

### 1.1 The Planets

H1. Planets influence how one is towards different categories of people: The sun how one is as a father and towards the father, the moon how one is as a mother and towards the mother, Venus and Mars how one is towards female resp. male friends, Mercury how one is towards siblings.

More precisely, the properties associated with the star sign, one of these planets was in at birth time, influence how one likes to behave relative to people of the respective category. The terms "father" and "mother" do not only apply to physical parents, but generally to anybody assuming a parental role, like, for example, a teacher. Similarly, the term "friend" includes anybody of roughly the same generation who does not fall into any of the other categories. This specifically includes male and female lovers. The term "siblings" also more generally applies to concurrents for the same lover.

Although it is common astrological knowledge to associate, say, the moon with the mother, I have not found anything nearly as specific as this hypothesis in astrological literature.

H2. Jupiter and Saturn apply to areas in which one gets more resp. less help from the collective unconscious than average.

This means that abilities associated with the star sign, either of these planets was in at birth time, will either be quickly and almost effortlessly available or, else, will have to be earned through hard work.

This hypothesis is, to some degree, merely a reformulation of general astrological knowledge which associates Jupiter and Saturn with "good luck" and "bad luck", respectively. Luck used to be understood as help by the gods, who are, at least in the minimalistic view of science, indistinguishable from the collective unconscious (cf. [2]).

H3. Uranus and Neptune apply to areas which are more resp. less easily made conscious than average.

This is essentially general astrological knowledge.

H4. Pluto applies to how one handles fate.

In other words, one will typically use the qualities and abilities associated with the star sign, Pluto was in at birth time, to solve the problems that life poses.

H1 at least partly solves one of the most important difficulties encountered when trying to measure human properties, namely that different people, say different members of a family, can give almost completely different descriptions of the same person.

I think this will make it possible to overcome the experimental difficulties, but one should at least be aware that the full picture would require to consider at least also the ascendent, planets near it, and the synastry between the partners.

## 1.2. Star Signs

H5. The properties associated with star signs are composed of ancient greek beliefs about the four elements fire, earth, air and water, and the transitions between them.

H5a. For each element E, the three star signs assigned to it correspond to different stages of transition from neighbouring elements A via E to B: the

first star sign (in the order of the zodiac) is composed mainly of A and only slightly of B, the second one of roughly equal amounts of A and B, and the third one mainly of B and only slightly of A.

This requires some introduction to the greek theory of the elements. Platon and Aristotle brought the greek theory of the elements to roughly its final form around 350 BC. The four elements are composed of two pairs of properties: cold/warm and wet/dry. Fire is hot and dry, water is cold and wet, earth is dry and cold, air is wet and hot. Transitions between the elements are only possible by flipping one of the properties at a time. For example, water can be transformed directly into its neighbouring elements earth and air, but only indirectly into fire.

The symbols chosen for the four elements are essentially triangles, the ones for the hot elements point up, the ones for the cold elements point down. When superimposed, they form the hexagram, which symbolizes the important greek view that "what is above corresponds to what is beneath". In other words, what happens with the stars and planets in the sky corresponds to what happens to people and things on earth, what happens in the physical world corresponds to what happens in people's psyche.

Therefore the term "element" was not only meant to apply to physical reality, but also to psychology. In this light, the property pairs cold/warm and wet/dry have to be clarified.

Nights are colder than days, therefore cold is associated with night. People are more active during the day than at night, therefore day is associated with active. Men typically assume a physically more active role during sex, therefore man is associated with active. In other words, water and earth are considered female elements, whereas fire and air are considered male.

The sun only shines during the day and the moon is only rarely clearly visible at daytime, therefore man/woman is associated with sun/moon. This association is strengthened by two facts: the changing apparent size of the moon reminds of pregnancy, many women have their monthly cycles correlated with the lunar cycle.

The contrast dry/wet is associated with brittle/malleable. Dry things are harder than wet things, they either stay how they are or they break, whereas wet things can bend and flow. Here the psychological meaning is clearly recognizable.

All of this correlates well with the common astrological view that water has to do with feelings, earth with reality, fire with imagination and air with mind. The correlations should become even more visible from the following hypotheses and from the appendix.

This introduction to the greek theory of the elements has been pretty much common knowledge, except probably for the causal chain linking warm/cold to man/woman.

### 1.3. Fire (Aries, Leo, Sagittarius)

H6. For fire, the elements A and B mentioned in H5a are earth and air.

H6a. The main picture is wood burning to smoke as the element earth is transformed by fire into air.

H6b. This is associated with the transition from animal to man to god. The physical, mortal body is wounded and at the same time transformed by the imaginary power of fire into knowledge that can be communicated to the next generation and thus becomes immortal.

H6c. The animal side corresponds to the lower part of the human body, the one with the sexual organs and without the head.

H6d. The more the animal side dies and the immortal side grows, the more one can afford to be patient (1), to imagine instead of doing (1), to be open instead of secretive (2).

#### 1.4 Water (Cancer, Scorpio, Pisces)

H7. For water, the elements A and B mentioned in H5a are earth and air, too.

H7a. The main picture is ice melting to water and then evaporating to mist.

H7b. During that process, borders dissolve.

H7c. The three signs react in different ways to pain: by trying to avoid pain by protection, by giving back, by suffering and forgiving.

H7d. Because ice is mainly found in the mountains (snow, glaciers), a second important picture is that of the circle of water coming from sources in the mountains, mixing together to rivers and finally flowing into the sea, where it eventually evaporates.

H7e. During that process different sources are mixed together, connected.

H7f. The circle of water is associated with the circle of life, symbolized by the three fates: the first one spins the thread of life, the second one measures its length and the third one cuts it. Thus the three signs are about creating/measuring/ending life.

H7g. The three fates correspond also to the three phases of the moon, where the first phase, the one starting at new moon, corresponds to a young girl, the second one, before and after full moon, corresponds to a grown, fertile woman, and the third phase corresponds to an old woman who cannot have children any more.

#### 1.5 Air (Geminin, Libra, Aquarius)

H8. For air, the elements A and B mentioned in H5a are fire and water.

H8a. The main picture is that of a cloud out of which comes both lightning and rain.

H8b. Lightning or a flame are quick and random, rain is constant and predictable.

H8c. Because of these properties, another important picture is the development from child to adult to old man. Children explore the world by turning things

around and looking at them quickly from different sides. Through this process, as one gets older, things get more and more unified. (For example, the two sides of a coin, which are a priori just two different pictures, are unified into a single thing called "coin" which looks different, depending on the angle from which you look at it.)

H8d. Through this process transparency increases, as it happens when the opaque smoke of a flame is transformed to transparent water.

H8e. The three signs have different ways of dealing with opposing principles: quickly switching from one to the other while always only seeing one at a time, balancing both, unifying them into a single entity (if necessary, by ignoring or destroying one of the opposites).

## 1.6. Earth (Taurus, Virgo, Capricorn)

H9. For earth, the elements A and B mentioned in H5a are fire and water, too.

H9a. The main picture is that of a tree which needs both the water from below and the light of the sun from above to grow.

H9b. The roots of the tree are the structure which keep it from falling down, they symbolize the physical limitations nature imposes. The fruit above are beautiful and delicious. Thus the opposing principles are beauty and structure, or, expressed by what Freud viewed as the strongest forces acting on people, sex and the fear of dying.

H9c. The limiting, structuring side of nature forces to decide, the sensual side allows to leave possibilities open.

H9d. The more one is aware of the limits of life the more one plans ahead, the less immediately one acts.

## 2. Science and Philosophy

The simplicity of the discovered structures describing human psyche resembles modern particle physics, which is also based on a few elementary particles and symmetries between them. On the other hand, the same greek model of the world was also meant to apply to the physical world, which it clearly does not.

It appears that merely thinking how the world is could not force physical nature to comply. The psychological part of the greek theories, however, has been very successful in human culture. I think that their theories have survived by natural selection. Astrological predictions are clearly adapted to seasons on the northern hemisphere (cf. appendix). This is very probably the reason why the astrological year still starts with Aries at the beginning of spring, even though this ceased to be astronomically correct about 2000 years ago due to the precession of the earth's axis.

Other astrological systems are not equal to the greek one. The chinese one, for example, has five elements. There is no air and there are two more solid elements besides earth, namely wood and metal.

This implies that the greek theory of the elements, in its entirety, contains

probably just as many elements of chance as a particular animal species. The building blocks of the greek theory, however, the simple, opposing principles, have probably some fundamental meaning. In analogy, there are, for example, physical reasons why mammals have two eyes rather than just one. In that sense, a comparison of different cultures could be interesting.

At some point, however, science will not be able to proceed further, since it can only operate on a given set of units, of which the world is composed in varying amounts indicated by numbers. In that sense, these units resemble mathematical axioms. Axioms cannot be proven correct or false, it is only so that their logical consequences are different and differently successful.

Thus one is lead out of science and into philosophy, where one tries to think with less assumptions about the world than are usually made.

#### Appendix A: Examples

Here I am going to take a swim through some signs, the properties associated with them, mythology, history, philosophy, all while trying to link them to the model presented previously. I do not claim that the associations I am going to make here are all strictly logical consequences of the model, but they are clearly related to it.

This text has been written very quickly, in one flow, on the evening of March 28, 2001 and only marginally modified afterwards as not to destroy the flow. At that evening, the sun was already in Aries, but Mercury, who stands among other things for how one thinks and writes, was still in Pisces. Please judge what follows rather as an improvised piece of music than as a carefully researched scientific essay...

Leo, like the other signs in the middle of their element, is trying to balance the two extremes (H5a). In this case between being open and secret (H6d2), between acting and thinking (H6d1). This is associated with the picture of the king who has to make a wise decision for his people. This cannot be proven in a strict logical sense, but it does come from H6b with the king halfway between animals and gods and is also linked to the view that the lion is considered the king of animals. In the latter statement, it is not so sure whether one is the consequence of the other.

Aries is acting strictly egoistically, because his animal side has not been wounded yet (H6b), because the fire has just started to burn. Aries is related to the egyptian god Amun, the ram, the invisible force behind the wind. This is related to the fact that to start a fire one needs to blow wind through the wood. The invisibility is related to H6d2.

Leo typically starts in life unwounded or at least unconscious of it. Later in life, Leo becomes more wounded or more aware of it. This wound can sometimes be physical and then it is often in the lower part of the body (H6c), but it probably more often is psychological. This is why Leo appears more egoistic than Aries, because there is a conflict. Similarly, Virgo is commonly associated with order, even though it is Capricorn who is really ordered. For Virgo there is always conflict between making order and having fun. Virgo is the last sign of the summer, when the harvest has to be brought in, when it has to be sorted and stocked for the winter. Days are typically still warm and one is tempted not to work much, but one also knows that the winter is coming and if the harvest is

not brought in in time one might not make it through the winter.

Leo is a fixed sign. The first sign of each season is a cardinal sign, one that likes to start new things but is unable to pull things much further, the second sign of each season is fixed, likes to pull things through but is unable to adapt quickly to changes, the third sign of each season is a mutable sign, one that is good at finishing something, to prepare for something new, very adaptable but somewhat passive.

Because Leo is a fixed sign, the egoism is even more prominent, because then Leo will be more willing to pull an egoistic opinion through than Aries would. The sign opposite Leo in the zodiac is Aquarius, also a fixed sign, the last of the air signs.

Aquarius, like the rain, wants to give everybody the same amount, not distinguishing between rich and poor, between beautiful and ugly, wants to be altruistic. Also the drive to unify wants all the people to be the same. Since Aquarius is a fixed sign too, it does happen though that Aquarius only sees the other people and gives them all the same but does not see himself and that he has much more than the others.

Other signs have also such opposing principles between the axes, between opposing signs in the zodiac. For example, Virgo has to do with analysis, the process of sorting the harvest, to structure it as much as needed to stock it in without needing too much space, with a sensitive eye to what does not fit in, like foul fruit that might destroy the rest of the fruit if it is not sorted out in time.

The first task of Psyche in mythology is to sort different seeds, with what ants help her do. The next three tasks correspond to the elements water (waiting for the right moment to steal some fleece from rams), fire (creating a model of the world in one's head through imagination in order to solve a problem, which allowed to retrieve something precious from the middle of the circular river Styx) and air (carefully planned, conscious action to get the box of Pandora from the underworld, from the collective unconscious).

Pisces on the other side of Virgo has to do with synthesis, as all the rivers from different places unite in the sea. Pisces is also what by definition cannot be analyzed. The contrast between Virgo and Pisces is most accurately described in the novel "Solaris" by Stanislaw Lem who has the sun in Virgo. Consequently Solaris is a detailed analytical description of what cannot be analyzed by definition. When the hero uses a super-microscope to analyze a blood sample of that copy of what was left in his unconscious of his wife who had committed suicide a few years ago, he sees the molecules but when he focusses in, expecting to see the atoms and then protons and electrons he sees nothing but a blank silver-gray screen.

The earth's axis precesses with a period of 26'000 years. Therefore every 2150 years or so, another sign is rising in spring, this period is called an astrological age. Aries was rising between about 2000 BC and 0, Pisces has been until about now and next it will be Aquarius. Each age is dominated by its sign and, less strongly, by its opposite sign.

Opposed to Aries is Libra, the middle one of the air signs, a cardinal sign like Aries. Libra tries to equilibrate the world, to bring oppositions into a harmonious balance. Aries is impatiently driven to bring the world off balance,



to break up existing structures such that new things become possible quickly. Libra is abstract, Aries in concrete, fights for his goals based on concrete, touchable knowledge of the world, Libra tries more its chances, because it is coming after Virgo has sorted the world quite a bit, so that it can easily see how things are and then take chances. Also one is tired after a month of Virgo to look at everything deeply in detail.

Before the greeks, there were eleven star signs, as big as they physically are on the sky. The greeks divided the zodiac into 12 parts of equal size, the sign Scorpio was split into two parts, the scissors of Scorpio became Libra. So what they did was at least self-consistent, the abstract philosophical view of the world, describing the world by numbers as Pythagoras said (what is still the basis of today's science).

Out of unity, the number one, comes two, oppositions. Two people mate and naturally become three. Three is close to pi, the number that relates the diameter of the circle to its circumference, the circle is perfect harmony because all points have equal distances from the center. Thus three is harmonious but still incomplete. The number four is disharmonious because about 6/7 are different than the rest.

This is clearly visible in fairy tales where the first two daughters are much like the mother but the third daughter, the fourth person, is different and yet contains something that is necessary in order to solve the other's problems. In real life, the first child of a family (number three counting mother and father) is often more like its parents than the second child.

In astrological charts the angles between planets have exactly these meanings, if planets are in conjunction, i.e. at about the same place (360/1) there is unity, the two forces of the planets unite. As the planets were nothing else than gods walking across the skies, the leading planet, the one further in the zodiac, decides, determines what is done and the follower is supporting the leader with his abilities.

The angle 180 is opposition, the two forces fight each other, one can deal with them in typically one of the three ways that air signs do. The angle 120 (360/3, trine) is harmonic but somewhat incomplete and rather passive. The angle 90 (360/4, square) is tension, but carries drive to act. The sextile (360/6) is harmonic opportunity, the quincunx ( $5/12 * 360$ ) is misunderstanding, that is why it occurs often between lovers, because it keeps relationships interesting even when people live together for a long time. Between people, aspects between the planets influence how people relate, this is called synastry.

The oracle of Delphi was founded as Zeus let two eagles fly into opposite directions to the other side of the world to the navel of the world. The eagles stand for Scorpio, maybe because the sign for Scorpio is located besides Sagittarius who is (besides Aries) associated with Zeus, is a hunter who maybe used eagles in earlier times for hunting. Besides the oracle of Delphi there was also the oracle of Amun/Zeus in Siwa in Egypt. Thus the myth symbolizes how the greeks created a new star sign in order to balance the world.

In another myth, Hermes as a baby steals 40 cattle from Apollon, and then kills one and splits it into 12 equally sized pieces and eats one of them, claiming to be a new god and at the same time ending the age of Taurus (cattle). Apollon is first furious that his cattle have been stolen, but later trades his cattle for a Lyra that Hermes has made, he trades the unconscious female age of Taurus for

the new conscious age and learns to play the Lyra. People have been making music with their own voices before there were instruments, with a Lyra you have to be more conscious, you have to learn to synthesize music from pulling a few strings. This is the same as composing astrology of four elements. Of course, the vocal cords are also a set of strings, so there was not really anything lost or destroyed by replacing the human voice by a Lyra and of course the human voice is still used to make music today.

Apollon is associated to the sun and thus to Leo; in this myth he turns from a shepherd into a musician, as his animal side is transformed into something divine.

After the age of Aries/Libra came the age of Pisces/Virgo. The strict, invisible god of the old Testament that appeared in a burning bush was replaced by a forgiving god, by a compassionate god. Now there is a whole family in the sky, god, the virgin mother mary (Virgo), and the son Jesus. This goes back to ancient gods, mother and son, related to the sea, which the greeks have incorporated in a more abstract form into their mythology.

The god of the arabic world has more Virgo in it, the koran is very detailed, for example, about the circumstances under which one may have a second wife. The Ramadan is any season of the year, whereas christians fast at the end of Pisces. Pisces go with nature, go with the world, Virgo tries to be herself, despite all the influences. Virgo is best associated with the planet earth itself, on which everybody is trying to live their own lives despite all the other forces acting on one.

During the age of pisces not much was made conscious, at least not in the first half of it. If one has ever seen the drawings of Leonardo da Vinci, it is obvious how much had already been there but had to wait until about the 19th century to be actually built.

It seems that the world always keeps part of the previous age for one more age. About 40 BC Carthago was destroyed, which was inhabited by the Phoenicians who had a religion that reminds much more of the age of Taurus/Scorpio, including allegedly sacrificing children to the Moloch. Some time before Hannibal had tried to walk across the Alps in order to conquer Rome. He was not planning much ahead and so did not succeed. The Phoenicians were probably (unconsciously) thinking that the Age of Aries was coming to an end and since Taurus is what naturally comes after Aries, this would be Taurus again. In the end, Carthago was destroyed and the remaining Phoenicians went home to the Lebanon.

During the Age of Pisces, Jews have maintained their religion of the old testament. As the age of Pisces neared its end, in 1781 a new Planet was discovered and called Uranus. Many people consciously thought that this could only mean that the new age had finally arrived. It has arguably contributed to the french Revolution and to the founding of the United States of America.

Aquarius loves progress, a continuous increase of transparency and consciousness. Continuous because he is a fixed sign and because the rain comes down continuously. "liberte, egalite, fraternity", the slogan of the french revolution, fits well with the new age, the first one mainly with Leo, the other two with Aquarius. After the french revolution, many things were done that made people more equal, like allowing women to become priests, for example, or chopping off peoples heads. People have said that without the Guillotine it would not have been possible to kill so many people in such a short time. This

is not quite true and the contrary has been proven in the past, but what would not have been possible otherwise, would have been to properly execute so many people, so quickly.

Many of the equalizing laws were first reversed again, but many of them are now again commonly in place. In Germany, Jews were allowed to go to Universities, were given names that can be written down in roman letters. For the first time in 2000 years, they felt again like being part of the world. Also it was the end of Pisces, with all those unconscious possibilities to implement.

So it was only natural that Jews started to discover and invent new things: Psychoanalysis and the collective unconscious, the theory of relativity, quantum mechanics, communism. Actually quantum mechanics was invented by two people, Heisenberg who was Jewish and Schroedinger who was not. Schroedinger had it actually figured out earlier than Heisenberg, but having the sun in Leo, he waited longer before publishing because his theory was conflicting with the theory of relativity, a conflict which has only later been resolved by Dirac.

Now, Aquarius loves continuous progress, but he also hates disorder. At one point, it seems, there was a collective unconscious drive that wanted to extinguish all Jews since apparently the attempt to make them equal to everybody else had failed. I don't want to excuse anything that has happened then, I just want to make some of the unconscious mechanisms apparent in order to maybe contribute to avoiding something like that in the future.

There is hope: many Jews are sort of no longer Jews, but Israelis, just a bunch of similar people living in a country, like everybody else. There is no longer much of a specific Jewish "problem", just the general problem that there are different countries but that problem will be solved later, hopefully in a civilized way. For example, Europe is in the process of melting into a single country, except Switzerland, which according to the legend was founded by its three "Urkantone" on August 1, 1291.

It is understandable, that even in the Age of Aquarius, a country with several planets in Leo does not think that melting is such a great idea by itself without further reasons. Switzerland is the land of compromise and also now a land of peace. Not so many years ago, Swiss mercenaries were the fiercest of Europe and used everywhere there to win battles. In a similar development to what happens in Leo's life, Switzerland has stopped to export mercenaries after in one battle there were mainly Swiss on both sides and they decided not to fight.

The Swiss wound then lead to the foundation of the Red Cross, to showing some mercy to others.

Russia has the sun in Aquarius. This is one of the reasons, communism was so successful there. Think of the extreme transparency as everybody was spying on everybody and of all the masses moving in unison.

The United States have the sun in Cancer; for it protection is very important, think encryption export restrictions or strategic missile defense. What other country has such a big "National Security Agency" (NSA)? Also Americans do not see much out of the country, most things on TV are internal US affairs, a large percentage of members of congress do not have a passport, they have never been out of the country.

I could write more along these lines, but I think I should finish now.

I hope that the turbulent phase of the transition to the new age will be soon over. It is not probable that the technological progress will continue at the same pace, because at some point the imaginary unconscious reservoir generated during the age of Pisces will be used up, at which point there might quite a stable period, as expected for a fixed sign.

My sources for learning astrology were mainly the two books by Liz Greene mentioned in [2] and a few seminars by her between 1999 and 2001, other books, the internet and observation of the world.

Now that I have shown you the strings of the Lyra and played some music on it, it is your turn to learn to play the instrument. You will probably succeed in making more beautiful music than me, as did Apollon compared to Hermes.

#### References

- [1] Discovery Disclosure (January 1998), by Alain Stalder.
- [2] Discovery Disclosure (January 2000), by Alain Stalder.

nQaakjjUrzkD+juqpbEPbYLuJJBV9+xCMZiIjg8WVHqofWALH/OpChUu20+wDXwx  
Ye5NgZeTBgZXfLM6nH7Dpe7uAOVlb66fLYANdmm8ftn/47lhNfCqfEeuzfxAsXH  
pYdrkFKgDjpnuj7lIVp7+u7T8TfzaoFX19cht2/YUoE=

The base64 encoded certificate on page 28 of the document (page 226 in this book):

```
MIIEgTCCA2mgAwIBAgIGAQIAAAQIMAOGCSqGSIb3DQEBAUAMIGZMQswCQYDVQQG
EwJDSDEUMBGA1UEChMLU3dpc3NrZXkgQUcxHjAcBgNVBAsTFtAwODUxMDAwMDAw
MDUwMDAwMDM5NDEbMBkGA1UECxMSUHVibG1jIENBIFN1cnZpY2VzMRAwDgYDVQQH
EwdadWVyaWN0MSUwIwYDVQQDExxTd2lzc2tleSBQZXJzb25hbCBJRCBDQSAxMDIO
MB4XDTAwMDEyMzEzMTYyMl0XDTAyMDEyMzEzMTYyMzEzMTYyMzEzMTYyMzEzMTYy
aXZhdGUgSW5kaXZpZHVhbnR0eMBwGA1UECxMVMDA4NTEwMDAwNTM0TAAwMDAwMTAy
MRMwEQYDVQQLEwownY4wOC4xOTYyMzEzMTYyMzEzMTYyMzEzMTYyMzEzMTYyMzEzMTYy
aW4gU3RhbGRlcjElMCMGCSqGSIb3DQEJARYWYXN0YXkxZXJAd2Vic2h1dHRsZS5j
aDcBODANBgkqhkiG9w0BAQEFAA0BjgAwggCjAoGBAMp/iHPAUHCpKE7A+varZrcD
txzGeClFqONjZv4XzPVSuhueFUP5d0jVO/i8JH+wfmASSq0NCTmof0AwVRfcvHvQ
2ZL5VGZgx9AfGTykj/uHoyscik25VL3C3wuDJPtDtrZJxouU2qr9vEqvRM6NeWP6
3vdsCIEQdZjyU8Ti5y67AgMBAAGjggFJMIIBRTALBgNVHQ8EBAMCBAAwEQYJYIZI
AYb4QgEBBAQDAgWgMIHXBg1ghkgBhvhCAQOEgckWgcZUaGlzIGN1cnRpZmljYXRl
IGhhcyBiZWVwIGlzc3VlZCBieSBTd2lzc2tleSBBRyBnb3Zlcm5lZCBieSBpdHMG
Q2VydG1maWNhdGUgUHVhY3RyY2UgU3RhdGVtZW50IChDUFMpLiB0UdFmYw5kIGZ1
cnRoZXIgaW5mb3JtYXRpb24gYWJvdXQgU3dpc3NrZXkgY2VydG1maWNhdGVzIGFy
ZSBhdmFpbGFibGUgYXQgaHR0cDovL3d3dy5zd2lzc2tleS5jaC4wCQYDVROTBAlw
ADA+Bg1ghkgBhvhCAQMEMRYvaHR0cHM6Ly9jcmwuc3dpc3NrZXkuY2gvcHJvZHNH
bC9nZXIzRfc3RhdHVzP3NpZD0wDQYJKoZIhvcNAQEEBQADggEBACtcsZgrH1UNCKO
FnV7jyM0znThwKaPysG133xtfTTh3Sk3tZa5HfotbaurwYlGzx6m772z7btT+Brx
qEiHwX1V3BWSFifYQ3PJulocM1tdcNBSdCBvqUCu4X7nWpYE+uXNNLgfIgGqBNK2
hgwUcVWHhF8K56jTddS90Ebq80e4hZHf6Te1VBs/WE1GtPNqJpeZCfB6CrK5UVVx
sjvcylYpzT2f+GN2NF80KvettfwqKyn1LgPyrYZs80YWYq9F1bDocBfI/4z/63kx
edDUvcS1eBjsXSihPuqSq+4gwQ1TAFPVCuo5WwHF7IIeqVgdb3y0sBf4BKJO23W
xH5NLZU=
```

The base64 encoded e-timestamp on page 28 of the document (page 226 in this book):

```
MIICigYJKoZIhvcNAQcCoIIcCezCCAncCAQExCTAHBgUrDgMCGjBTBgsqhkiG9wOB
CRABBBEBEiwQAIBAAUAMB8wBwYFKw4DAhoEFHJR9PXRatRMpTfCtGhYiYIjDmwC
AgIDSRgPMjAwMTA1MDMyMDA0NDhaMAMCAQQxggIQMIIcDAIBATB7MHYxZzAJBgNV
BAYTA1VTMqswCQYDVQQIEwJlUWDEYMBYGA1UEChMPRGlnaVNOYWIwLCBjbmuMRYw
FAYDVQQDEw1EaWdpU3RhbXAgVFNBMQwwCgYDVQQLEwNUU0ExGjAYBgNVBAsTEXd3
dy5EaWdpU3RhbXAuY29tAgEtMAcGBSs0AwIaoG4wGgYJKoZIhvcNAQkDMQOGCyQG
S1b3DQEJEAEEMCMGCSqGSIb3DQEJBDewBBR00A7s7UXh501SHn7HSpBf5VVckzAr
BgsqhkiG9wOBCRACDDEcMBowGDAWBBSFEBEK1b39e4OnEG9IDly0cEoHzANBgkq
hkiG9wOBAQEFAASCAQBZMgaGML5RRGgkoMSNeGjqfcBOiAdThir2DDbnQrkiw9s
c0uJIygpWouId0xtwW/spaZxJ3+HDu195HAgwdOD3vQlrZ/0qc1cvxhIgx+9+mQz
h5h4/FzQopxj2k/LFUj0IOXEM9bkQ+Hd1b0HnQu452XKMuhgb79R+/ZUbghQRLq1
avLCQJ08cpJuWXHzNSCRQaK/W6V/YvRHhP60F0phBIJSFH1MffSB36wLaFdhOuOT
3eE1pF9CgGmLZKVJ+s3S+bJx6yjrflRvr1YIGIj4VLEwoab4vUKYrI2ntvx3ppBl
y7KjQsAIjGQqA17KchbhOhQpz15QLCcv2VSf64po
```

The base64 encoded data at the end of page 28 of the document (page 226 in this book):

```
nQaakjjUrzkD+juqpbEPbYLuJJBV9+xCMZiIjg8WVHqofWALH/OpChUu20+wDXwx
Ye5NgZeTBgZXfLM6nH7Dpe7uA0Vlb66fLYANDmrm8ftn/47lhNfCqfEeuzfxAsXH
pYdrkFKgDjpnuj7lIVp7+u7T8TfzaoFX19cht2/YUoHavZNtA90VltqDA2j9nC4N
IEBI59EUty5bPg80BLPf8taLSQtyUfT1OWrUTKU3wrRoWImCIw5sAnTQDuztReHk
6VIefsdkKf/1VVyTWTIGhjC3uUURoJKDEjXho6n3AdIghU4Yq9gw250K5IsPbHDr
iSMoD1qLiHdMbcFv7KWmcSd/hw7pfeRwIMHTg970Ja2fzqnNXL8YSIMfvfpmK4eY
ePxcOKKcY9pPyxViziNFxDPW5EPH3dW9B5OLu0dlyjLoYG+/Ufv2VG4IUES6tWry
wkCTvHKSb1lx8zUgkUGiv1ulf2LOR4T+tBTqYQSCUhr9TH3Ogd+sC2hXYdLtE93h
NaRfQoBpi2S1SfrNOvmyses063yOb69WCBiI+FSxMKGm+L1CmKyNp7b8d6aQZcuy
oOLACIxkKgNeynIW4dIUkc9eUCwnL9lbBeuKaA==
```

The disclaimer and estimation on page 29 of the document (page 227 in this book):

## Disclaimer

This document is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

This document consists essentially of a list of scientific hypotheses, i.e. of questions to nature that have been formulated in a way that allows experimental scientists either to ask them directly to nature or, else, to divide them into sub-hypotheses by means of known techniques and then to ask those to nature in experiment. If, and only if, a hypothesis is experimentally confirmed and generally accepted by the scientific community, will it become a scientifically verified fact.

If you apply any hypotheses as facts to your life or to the life of others, you are doing it exclusively at your own responsibility and at your own risk.

## Estimation (January 2002)

In my personal estimation, the quickest path to some tangible scientific results would be to try to prove or disprove H14b together with the basic pictures for the four elements (fire, cloud, river, tree) in combination with H19, and applied to different groups of people, as indicated in H10.

Direct confirmation of H1-5, however, might either be relatively easy or, else, very difficult, depending on how much the effect is connected to quantum mechanics and measurement, as well as, depending on whether there is collective resistance to proving it. Qualitatively, the experience of H1-5 is as real as anything can be, the moment it is felt, but in retrospect, feelings are often not so convincing, presumably precisely because feelings are largely collective phenomena that cannot be reproduced well within an individual without reiterated feedback from others. I remain curious.

The copyright notice on page 29 of the document (page 227 in this book):

This document is

Copyright © 2002 by Alain Stalder. All Rights Reserved.

Distribution in *electronic form* is explicitly permitted as long as the document is not modified in any way. In all other cases, all rights remain reserved.

<http://www.exactphilosophy.net/discoveries.pdf>

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## usenet odyssey

Usenet is (or rather was) like a gigantic theater play, staged by millions of actors without any script. Trying to extract just my lines from that complex and scintillating web of possibilities would maybe destroy a lot of that, and even then I would have to leave out a \*lot\*, so that the best possible result would be something that would not differ all that much from the main contents of my website [exactphilosophy.net](http://exactphilosophy.net) or of my [artecat.ch](http://artecat.ch) books?

Anyway, for the moment just "follow the white rabbit" of my usenet posts from June 2002 until roughly 2009, in various usenet newsgroups and with different email addresses. Most of my posts are no longer archived at Google Groups at my requests around ten years ago, but other usenet archives still carry them.

Looks like I might maybe never extract fragments from usenet, because I don't want to take things apart? Thanks everyone in usenet for all the fish! :)

Leave these islands in the usenet ocean? It's still all there!

Me early Pisces 2004 at [alt.astrology.tropical](http://alt.astrology.tropical):

```
: In life, because one often would have the option
: to say or do more than one finally does and can
: do, the things that one does not say or not do,
: are more important than the ones that are done.
```

)o+

# exactphilosophy.net



avantgarde

## Mondfaden

Hier die ersten drei Beiträge von über tausend des Mondfadens, *Der Mond und die Astrologie (und die Welt)*, den ich am 26. Dezember 2014 um 10:24 morgens im astro.com Forum gestartet hatte, plus einer Übersichtszeichnung, die ich in den Tagen zuvor gemacht hatte, basierend auf einer Liste mit Stichworten vom 9. Mai 2012, aber erst im August 2015 im Faden veröffentlichte. Daneben gab es noch einige weitere Fäden, auch mit einigen Beiträgen von mir. Einfach dort nachschauen, falls Astrodienst das weiterhin aufbewahrt hätte; der Mondfaden lohnt sich trotz allem wirklich, ist praktisch der Umfang eines Buches, mit sehr vielen recht langen und illustrierten Beiträgen, die meisten von mir. Vielen Dank an alle, die im Forum mitgeschrieben und/oder mitgelesen hatten!

### Der Mond und die Astrologie (und die Welt)

Was ich hier zum Mond sagen werde, kann man natürlich direkt anwenden auf den Mond im Horoskop (oder auch in üblicher Weise teilweise auf Krebs oder 4./10. Haus, usw.) – aber es geht auch noch deutlich weiter:

*Wie ich zu zeigen hoffe, ist der Mond mit dem Wesen der Astrologie viel tiefer und direkter verwoben als bisher wahrgenommen wird.*

Bevor ich das kann, muss ich aber erst die Dinge etwas entfalten. . .

### Runde Dinge und in Kreisen sich drehen

Der Mond ändert sein “Gesicht” periodisch im Verlauf von jedem Monat: Von leer zu voll und wieder zurück. Daher und auch weil der Mond sichtbar rund ist, kommt u. A. die Identifikation mit allem Runden/Zyklischen. Gerade weil sich beim Mond immer alles dreht, kann man es auch nicht so logisch linear beschreiben und analysieren, daher hier einfach mal ein Katalog von mondhaften Dingen, sie werden sich bald verweben. . .

### Spiegelndes, reflektierendes “Nichts”

Der Mond reflektiert “nur” das Licht der Sonne; wenn der Mond z. B. im Löwen ist, dann ist es nicht wie bei der Sonne messbar Hochsommer, aber doch hat es eine Wirkung. Wenn man eine anscheinend mysteriöse komplexe Frau als Mann verstehen möchte, so sollte man oft halt nicht zu kompliziert denken, nicht “zu viel Licht hineinprojizieren”. Mit ganz einfach denken kommt man oft schon nahe heran, auch wenn man dann doch keine Chance hat auf das “Nichts”




am Ende. Oscar Wilde hat das in "Die Sphinx ohne Geheimnis" auf die Spitze getrieben, mit der Frau die sich einfach nur ein Zimmer für ein paar Stunden in der Woche gemietet hatte um dort ihr so schön "leeres" Geheimnis zu pflegen indem sie einfach niemandem sagte was sie da tat und auch nichts besonderes tat...

23.05.2014 22:15 +...

## ARTEMIS

DIE GEHEIME, SUPREALE WELT DES MONDES

- RUNDE DINGE, IM KREIS GEFÜHRT 
- FRÜHLINGSPUNKT, FISCHER-WIDDER, ARTEMIS/HEKATE, GEBURT/TOD
  - ↓ MICHTE LAPLUNE
  - ↓ BUNGE GÖTTIN
  - ↓ ELUG NEUE
  - ↓ ÄLTEN ALS ZEUS ETC.
  - HEBAMME
- SCHATTEN, STILLE, SPIEGEL → MOND REFLEKTIERT SONNENLICHT
- STATUEN, GEFÄHRTEN, KNOTEN FÜR WELLEN DES LEBENS (Z.B. KUNST, GLOCKENKETTEN)
  - ↓ VERSTECKTE, ANGEWANDTE SEITE DES MANNES, UNGEREHETE PHASEN
- 5. ELEMENT IM KREIS , STEIN DER WEISSEN GRAL, GEHEIMNIS DER SCHÖNHEIT (ARISTOTELES)
  - ↓ PEPPERMINTA
  - ↓ GÖLEM, ROBOTER, (MOLCHE)
- LEBEN SCHAFFEN, KÜNSTLICHE INTELLIGENZ
  - ↓ HEGET + KHAUM-LENN FLUSS
  - ↓ PERIODE → NEUWACHS
  - ↓ BLUT
  - ↓ LÄCHT RÖTLICH SICHTBAR
- WEISS - ROT - SCHWARZ
  - ↓ MÄDCHEN - FRAU - GREGISIN
  - ↓ KINDER
- KONTRAST GENERIERT NEUES, KANN ENDBLOS IM KREIS, SIE RUHT IM ZENTRUM (THESE-ANTITHESE-SYNTHESIS)
  - THEATER: SCHAU SPIELER - PUBLIKUM - ...
  - ETC.
  - (ODER AUCH NICHT)
  - (PERIODE)
  - (AUS BEI NEUWACHS IN RUHE?)
- GROSSSTÄDTE, PRAG HAUPTSTADT DER ARTEMIS, KAFKA
  - ↓ PHOTOGRAPHIE → SILBERMOND
- THEATER, KUNST, SCHÖNHEIT DES NEUGEBORENEN
  - ↓ (MOD. ETC. KUNST → NEWBORN BABY)
  - ↓ NICHT WIRKLICH "SCHÖN" ABER BINDET ELTERN SOFORT
- ELSTER, SCHACH
  - ↓ JAGEN, BOGEN
- VERWANDLUNG, TIERE, NATUR, VÖGEL
  - ↓ DER GÖLDBERG FELS 1ST CENT. CE (APULEIUS)
  - ↓ AUGEN, FERNSTEBERN (GÖLEM) (MEN)
  - ↓ RUND SPINSTER INIS
  - ↓ SEHEN IN FRAHE
- HERA, HERAKLIT, HERKULES
  - ↓ "DER DUNKLE"
  - ↓ THE PATH UP AND DOWN ARE ONE AND THE SAME
- ASTROLOGIE, ÜBERSINNLICHES, GEISTER, TELEPATHIE, USW.
  - ↓ RUND, IN KREISEN (EPIZYKLIEN)
  - ↓ ALLES KAMM ODER NICHT BEWUSSTSEIN
- TRÄUME, RAUSCH, BESONDERE BEWUSSTSEIN ZUSTÄNDE

ABER AUCH KÖNIGIN DER ASYMMETRIE (AMAZONEN A BERST ABWANDEN WEGEN BOGEN)

### Artemis/Hekate und der Frühlingspunkt

Die Mondgöttin Artemis wurde kurz vor ihrem Zwillingenbruder Apollon geboren und half gleich mit als Hebamme bei seiner Geburt. Als Hebamme ist sie dort wo neues Leben entsteht oder generell wo Neues erschaffen wird. Hekate ist eher die Totengöttin, und sie ist die einzige der alten Götter bei den Griechen, die nach der Revolution durch Zeus und seiner Generation ihren Platz behielt. In dem Sinne ist sie die unsterblichste Göttin, älter als alle Götter die waren, sind und sein werden. Oft wurden die beiden als eine Einheit gesehen, am Punkt

zwischen Tod und (Wieder?-)Geburt. Astrologisch ist dieser Übergang zwischen Ende Fische und Anfang Widder, am Frühlingsanfang.

### **Die Liebe zur Kunst**

Wenn man wie Hekate ewig lebt, so werden andere Dinge wichtig als bei Sterblichen. Menschen kommen und vergehen so schnell, aber Kunstwerke bleiben Artemis über Jahrhunderte und mehr als "Gefährten" erhalten. Alles was den Menschen im Leben wichtig erscheint hat sie schon abermals gesehen, nur was an Intensität nahe herankommt an eine Geburt oder den Tod hat für sie noch einigermaßen eine Bedeutung. Umgekehrt ist sie als Artemis immer auf der Suche nach dem Neuen, voll die wilde ungezähmte Avantgarde. Auf der Suche nach irgendwas das neu und intensiv genug ist, um in ihrem ewigen Leben noch Sinn zu machen.

### **Symmetrie und Asymmetrie und die Gegensätze**

Jetzt beginne ich schon mehr die Dinge zu verweben. Für Männer sollte ich jetzt vielleicht noch erwähnen, dass das auf eine gewisse Weise sehr unlogisch wird, da sich Gegensätze beim Mond oft nicht widersprechen sondern befruchten. . .

Die Schönheit der Frauen beruht oft auf passiv spiegeln und rund sein. Das ist durchaus auch rein physisch optisch das Zeigen oder Verbergen der runden, gespiegelten Attribute wie Augen, Brüsten mit Brustwarzen und Hintern. Dort aber fast im gleichen Zug wieder das Spiel mit der Asymmetrie, in der Frisur oder in der Kleidung, besonders bei Künstlerinnen und so ist oft dort wieder viel Asymmetrie zu finden, manchmal auch direkt körperlich mit verschiedenen Augenfarben usw. Und natürlich ist das Ganze nicht nur auf das visuell sichtbare beschränkt, sondern eine schöne Frau ist auch innerlich "rund". N.B.: Um eine Frau zu interessieren kann man z. B. diese passive Rundheit versuchen zum Drehen zu bringen, also nicht voll frontal auf sie zu, sondern irgendwie immer wieder "tangential" und sie so zum Drehen bringen. Was nicht heissen soll, dass dann der Mann das Spiel kontrollieren würde, natürlich. Das schwarz-weiße Chinesische Yin-Yang Symbol mit viel Rundem, das wohl alle kennen, geht historisch u. A. auf das Bild eines Hügels zurück, wo sich im Laufe eines Tages die sonnige und schattige Seite abwechseln, also Gegensätze und doch ein Ganzes und periodisch in Bewegung. Gerade daher ist neben dem Runden durchaus auch das betont zackig-eckige auch wieder sehr mondhaft, usw.

### **Schwarz-Rot-Weiss**

Der Mond ist "weiss" bei Vollmond, schwarz-weiß die meiste Zeit und bei Neumond leicht rötlich dunkel. Da ja die weibliche Periode mit dem Mondzyklus assoziiert wird, ist das rot auch das rot des Menstruationsblutes (oder der Geburt). Das Wachsen zum Vollmond ist auch wie das Wachsen des schwangeren Bauches bis zur Geburt. In der Mythologie ist das mondhaft weibliche oft dreifaltig, auch für drei Lebensphasen, als Mädchen (noch nicht zeugungsfähig), erwachsene Frau und dann als alte Frau (nicht mehr zeugungsfähig).

## **Die Ästhetik in der Kunst**

In der Kunst sieht man oft die drei Farben, aber auch eben oft Rundes und die Symmetrie. Auch in der Photographie, die (vor der digitalen Photographie) auf Silber beruhte, dem Metall des Mondes. Man muss sich einfach mal ein paar berühmte Bilder oder Skulpturen in Erinnerung rufen und ja, oft ist es halt dann genau ein mondhaftes Element was es ausmacht, bzw. wenn man es sich wegdenkt dem Kunstwerk oft einen grossen Teil seiner Berechtigung stehlen würde. Darin liegt auch eine grosse Vertrautheit mit dem Mond, mit dem Mütterlichen, das man nach der Geburt sieht, wie z. B. unmittelbar die Augen und Brüste der Mutter. Umgekehrt sucht Artemis in der Kunst (zumindest seit der Moderne) oft die Ästhetik eines neugeborenen Kindes, das nüchtern betrachtet im Vergleich zu dem, was man sonst als "schön" bezeichnet, oft sehr hässlich ist—nicht glatt, rund, sondern faltig, verklebt mit allen Möglichem—und dennoch die Eltern in Liebe binden kann wie sonst nichts. Genau das versucht Artemis in der Kunst zu erreichen.

## **Golem, Roboter, Grossstädte und Prag**

Artemis, die wilde naturnahe Jägerin ist aber auch Göttin der Städte, von Zeus selber bekam sie 50 Städte. Prag gilt mystisch als die Stadt der Städte, und ja, da findet sich sehr viel mondhaftes, aber eben, es ist halt eher im Schatten als im Licht. Der Name "Prag" steht anscheinend für "Übergang", möglicherweise für eine Fuhr in früher Zeit, wozu es aber anscheinend keine historischen Hinweise gibt, symbolisch denkt man aber sofort an den Frühlingspunkt, den Übergang zwischen Tod und Leben. Im Bild "La Plume" vom Tschechischen Jugendstil Maler Alfons Mucha, hat Mucha als Kunstgriff den Sternkreis versteckt auf 14 Zeichen erweitert, zwischen Fischen und Widder, versteckt im Hals der Schönen, hat er zwei neue Sternzeichen hingetan, symbolisch also auch für den Übergang zwischen Tod und Wiedergeburt wie bei den alten Ägyptern. Es waren in Ägypten Heqet und Khnum, die am Oberlauf des Nils neues Leben schufen aus Lehm, so wie in der Sage in Prag der Golem am Ufer der Moldau aus Lehm geschaffen wurde. Auch Roboter sind, wenn man so will, ein Versuch künstlich Lebewesen zu schaffen, und das Wort "Roboter" kommt aus einem Theaterstück von Karel Capek (das Wort ist die Erfindung von seinem Bruder Josef). Es hat sehr viel Kunst in Prag, das meiste aber unsichtbar für all die Touristen.

## **Schlaf, Traum, Rausch**

Künstler oder vielleicht die "Bohème" (Prag liegt in Böhmen) schaffen ihre Kunst oft nicht analytisch bewusst und linear, sondern suchen halt oft die Kreise, in Träumen und auch im Rausch, eben auch um den Geheimnis des Mondes so nahe zu kommen. Das "automatische Schreiben" der Surrealisten kommt einem da in den Sinn.

## **Theater**

Auch wenn Artemis 50 Städte hat, ist sie selbst sicher keine "Bürgerin", sie lebt eher im Grossstadtdschungel, vielleicht in Abbruchhäusern die sie sich wieder einrichtet. Aber im Theater da kommen die zwei Welten wie schwarz-weiss im Mond nahe zusammen. Das Publikum im Halbdunkel, die Bühne im Licht.

Die Bourgeoisie im Publikum, die Bohème auf der Bühne. Und da spiegeln die Künstler auf der Bühne alles, was in der "bürgerlichen" Welt so abläuft, auf ganz dichte, mondhafte Weise. Und die Bürger applaudieren dann noch dazu. Das dient wohl (ich sollte das ev. noch weiter begründen, aber kein Platz mehr) dazu, dass die Bourgeoisie unbewusst in Wallung gerät, ihr Handeln irgendwie unbewusst erkennt und danach unmerklich etwas ändert. Aber Zeit, um zum Versprochenen zu kommen:

### **Der Mond und die Astrologie**

In der Astrologie bestimmt sich das Schicksal aus dem Moment der Geburt, also genau aus dem Punkt wo die Artemis ist, der Punkt worum ihr Interesse an der Welt kreist. Und das Schicksal entfaltet sich nicht linear sondern in Kreisen, nämlich in den Kreisen, die die Planeten im Himmel machen (geozentrisch, mit all den Kristallsphären und Epizyklen). Das war's schon, wie so oft eben mit dem Mond am Ende fast leer und irgendwie banal und doch die ganze Welt darin enthalten.

Seit der Entdeckung des Uranus wurden die Abschnitte in der Geschichte bis zur nächsten Entdeckung mit dem Planeten in Verbindung gebracht. Wie Aufklärung, Revolutionen und Eisenbahn mit dem Uranus, Photographie und Öl/Automobil mit dem Neptun, Atombomben und mehr mit dem Pluto. Nun ist seit Sommer 2006 am astronomischen Weltkongress in Prag (!) Pluto offiziell-astronomisch kein Planet mehr (was rein astronomisch-wissenschaftlich gesehen unvermeidbar war). Damit endete wohl die Periode mit Pluto. Also was dann? Nun, ich behaupte, genauso wie Pluto als erstes Objekt in seiner Entfernung prägend war, ist es heute das erste entdeckte Objekt einer Sphäre in weiterer Ferne, nämlich Sedna, welche im Herbst 2003 entdeckt wurde. Wenn man Planetenherrschaften erweitert, so bekam Uranus ein Sternzeichen vom Saturn, Neptun vom Jupiter, Pluto vom Mars. Also würde Sedna ein Sternzeichen von der Venus bekommen; ich vermute, dass Venus eher das weibliche Zeichen Stier behalten würde und Sedna also die Waage bekäme (ganz oder teilweise oder wie immer man das sehen will). Und Sedna ist im Moment im letzten Dekan des Stiers (und das für eine Weile, da sehr weit weg und daher langsam, auch wenn im Moment der Sonne relativ nahe).

Das suggeriert, dass in den heutigen Zeiten Geld sehr wichtig sein würde, stärker als ob man Atombomben hat oder nicht. Das würde für mich gut passen. Auch dass (wie Sedna in der Inuit Mythologie) man irgendwie keine Hände hat mit denen man etwas bewirken kann in der Gesellschaft, dass man der ganzen etwas sturen und doch oft auch wohlwollenden Fürsorge irgendwie halt passiv sich fügen muss in gewissen Bereichen. Ich sehe das eben auch aus Sicht der Artemis oder von Prag aus: All das Leid dass Pluto mit dem 2. Weltkrieg und Holocaust und danach dem kalten Krieg nicht zuletzt in Prag gebracht hatte, "wollte" Prag/Artemis ändern durch die Schaffung einer mehr und mehr matriarchalischen Welt, wo passive Macht stärker ist. Es liegt ja in der Natur der Sache, dass auch wenn ich richtig läge mit meiner "Sedna Epoche der Weltgeschichte", das eventuell mondhaft halt im Verborgenen bliebe.

Hier noch die erwähnte Liste, aus Gedanken ab 2010:

### **artemis**

Die geheime Welt des Mondes.

- runde dinge, im kreis
- frühlingspunkt, fische-widder, artemis/hekate, geburt/tod
- schatten, stille, spiegel
- statuen, gefährten, knoten für wellen des lebens
- 5. element im kreis, stein der weisen, gral, geheimnis der schönheit
- leben schaffen, künstliche intelligenz, golem, roboter
- weiss-rot-schwarz
- kontrast generiert neues, mann endlos im kreis, sie ruht im zentrum
- grossstädte, prag hauptstadt der artemis, kafka
- theater, kunst, schönheit eines neugeborenen
- elster, schach
- verwandlung, tiere, natur, vögel, augen, fernsteuern
- hera, heraklit, herkules
- astrologie, übersinnliches, geister, telepathie, usw.
- träume, rausch, besondere bewusstseinszustände

© 2002-now Alain Stalder  
admin@exactphilosophy.net

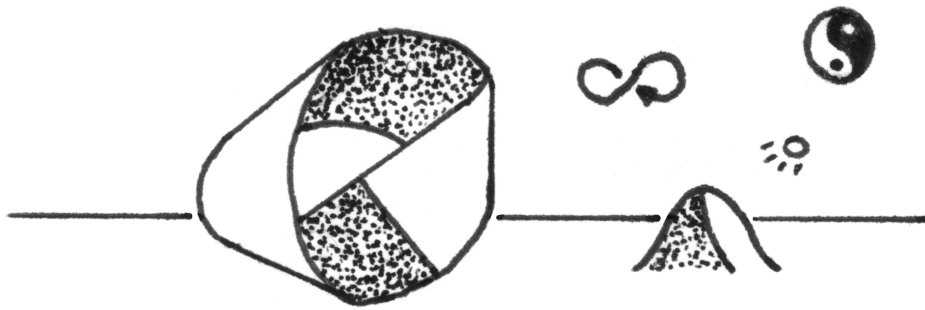
# exactphilosophy.net



avantgarde

## Möbius lego

Two variants of the same idea from this website in 2009. On the following pages to the left the newer version, probably at least initially written with only my left hand, to the right the older version. I still think the idea is beautiful.



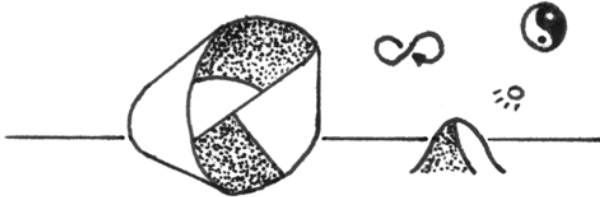
The idea consists essentially of “condensing” all secrets of the world into something like a Möbius strip as an alternative to “elementary particles”, so that the most elementary components of the world would already contain the deepest secrets, which can maybe never be resolved anyways.

Both versions are also part of the copy of my website of 2009, although the older version is somewhat hidden there.

## moebius lego

*If you step into the same river twice, the waters will be different. — Heraclitus*

How about not describing the world with units, but with something that contains already all irresolvable dualities within itself, something like a Möbius strip?



In early ancient philosophy, opposites are often not fully separated, yet. Heraclitus says, for example, that “the path up and the path down are one and the same”.

The Chinese Yin-Yang symbol has its origin in the image of a hill, in its sunny and shadowy sides, which gradually trade places during each day. So in a way space repeats in time, twice before returning to the starting point.

Similarly, if you imagine you are an ant that walks along the number 8 or on the symbol for infinity  $\infty$ , you get to the central point twice, but coming from different directions. On an infinitely narrow Möbius strip, you even get to every point twice, but on different sides of the strip.

Kant realized that space and time are a priori necessary for thinking. What is also needed, is to remember things, to *repeat* things mentally. When thinking, you remember different things, you recreate them from memory and recombine them. So thinking requires mental loops in space and time, which reminds of the mentioned images.

Any scientific theory of the world that claims to be complete creates at least one loop of self-reference: It must be able to describe itself, since it is part of the world.

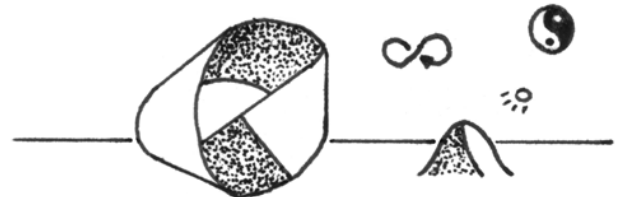
This has so far always lead to paradoxes in one way or the other. Also, new experiments can at any time change specific answers to quite fundamental question like whether the future is really or just practically not fully predictable. The former is the current view in quantum mechanics, the latter was the view in classical mechanics.

So, why not concede that some fundamental questions cannot be answered, and *embed* them into something like a Möbius strip, as a way of preserving both possibilities? The rest of the world would then presumably be relatively easy to handle, in terms of such dual building blocks that embed all insolvable questions. . .

Of course this is quite an abstract idea, but still: Can it be turned into something more concrete and specific?

## moebius lego

How about not describing the world with units, but with something that contains already all irresolvable dualities within itself, something like a Möbius strip?



Kant recognized that space and time are necessary for thinking. But what is also needed, is to remember things, to repeat things mentally. If the images in your mind were always just 1:1 copies of what is seen outside, there would be no thinking. When thinking, you remember things, you recreate them from memory and recombine them.

If you imagine that you are an *ant* that is walking on the number 8 or on the symbol for infinity  $\infty$ , then you get to the same point twice, but coming from different directions.

On a Möbius strip, you even get to *every* spot twice, but on different sides of the strip.

These are symbols for things that are both 1 and 2 at the same time, like also the Chinese Yin-Yang, which was in its origins related to the sunny and shadowy sides of a hill, which switch roles during a day. By the way, this image fuses also Aristotle's pairs of opposites dry/wet and hot/cold into one entity: The sunny side of the hill gets warmer and dryer than the shadowy side.

Any description of the world that claims to be complete has the problem of self-reference: It must be able to describe itself. Hence a theory of everything must combine two complementary views: subject-object and one world. This causes many logical problems, of which none has been really solved in the history of humanity.

So, why not concede that some things are inseparable and isolate them into a single concept, something like a Möbius strip? And then use such *dual units* as elementary “particles” to build the world, like with lego bricks?

Would such a separation of concerns be possible in principle, and, if yes, how exactly would you do it?

## leads

- Is mathematics the best tool for this or would a modified form of mathematics be better suited for the task?  
Take Hilbert's second problem, the question whether arithmetics is free of internal contradictions. As Gödel has shown, using also self-reference in the proof, it is not possible to prove so strictly *within* that system. Quite generally, mathematical statements about the internal consistency of mathematics itself can arguably not be trusted with absolute certainty. So there seem to be unsolvable fundamental questions in mathematics, too, hence something to *embed* before proceeding?
- The wave-particle duality in quantum mechanics comes maybe close to the proposed idea. At least in the original Copenhagen interpretation, the duality is considered a fundamental duality that can never be resolved, except for quantitative predictions in which experiments which aspect will show more.
- Spatially separated particles with correlated quantum states can depending on the experiment be considered to be individual particles or need to be treated as an entity, despite a possibly spacelike separation between measurements that allows no signals to travel in between.
- Since according to quantum field theory all elementary particles have come to be from elementary processes, like pair production, the world would in principle be filled with quantum mechanical correlations. Even though these would usually not be directly visible, they might even show in cases not covered by the statistical approach of decoherence.
- Virtual particles can depending on the observer be particle or corresponding antiparticle and 'fly' one way or the other.
- The image of a hill for Yin-Yang fuses Aristotle's fundamental opposites hot-cold and dry-wet into a single unity. Its sunny side gets warmer and dryer than the shadowy side.
- How about turning the circle of elements into a Möbius strip of elements?

Using the association between elements and trigrams that I give under *ancient philosophy*, the male trigrams might form one circle and then switch in-out into a second circle of the female trigrams. Male fire, for example, which moves actively outside would be mirrored by a calm active inner flame, by female fire. Psychologically speaking, women are often good at preserving a wish, a dream of how things should be (fire), and wishing for men to realize them in the outer world (move outside, hence fire). Conversely, men seem to be less able to preserve such a dream, hence a mutual dependency between men and women would naturally emerge from this image...

## leads

Besides the obvious hint to use higher math, here are some often much less formal leads.

- Søren Kierkegaard. *Repetition*. 1843.  
"[...] *Repetition* is a decisive expression for what was "*recollection*" to the Greeks. Like they taught that all cognition is recollection, so will the new philosophy teach that all of life is repetition. [...] Repetition and recollection are the same movement, only in opposite directions; because that what is remembered, has been, is repeated backwards, while repetition per se is a recollection in forward direction. Therefore repetition, if it is possible, makes a man happy, while recollection makes him unhappy, under the precondition that he gives himself time to live, and does not in the first hour after his birth devise a pretext for stealing himself out of life again, because, say, he forgot something." (translated by me from Hans Rochol's translation to German, Felix Meiner, 2000)
- William James Sidis. *The Animate and the Inanimate*. 1925.  
"[...] The behavior of drops of mercury on a smooth surface, consisting, we may suppose, partly of metal. These drops, in our universe, would roll around under the influence of any external forces that may happen to be present, unite if two happen to come together, and, in case they touch metal, the drop will shrink and partly amalgamate with the metal. In the [time reversed] universe, on the contrary, we have a different arrangement: the drops will roll around as before, but, in their rolling, will avoid the pure metal surfaces, but will tend to roll over the amalgam surfaces. When in contact with the amalgam, they will extract the mercury, and thus the drops will keep growing. When the drop grows in this manner to a large size, there will appear a constriction, and finally a division into two drops, each like the original. This action of ordinary mercury drops in the reverse universe corresponds in many details to the growth and division of living cells in our universe." (quoted from sidis.net)  
Ingenious observation—even though the apparent correlation of time reversal and flipping between animate and inanimate processes is scientifically rather a coincidence, since, while life locally creates order, thus *apparently* reducing entropy, in reality an equal or greater amount of entropy is simultaneously exported into the environment.
- The *lunar nodes* in astrology are a concept that is in many respects very similar to a Möbius strip, but in a way goes even beyond that. The nodes are often related to reincarnation, i.e. to another possible form of loops in life(s), and also to happiness in life, which reminds of Kierkegaard above.
- Most primary concepts in astrology are more or less related. Besides the nodes, maybe most directly retrograde Mercury and the element air.



- Søren Kierkegaard. *Repetition*. 1843.  
 “[...] *Repetition* is a decisive expression for what was “*recollection*” to the Greeks. Like they taught that all cognition is recollection, so will the new philosophy teach that all of life is repetition. [...] Repetition and recollection are the same movement, only in opposite directions; because that what is remembered, has been, is repeated backwards, while repetition per se is a recollection in forward direction. Therefore repetition, if it is possible, makes a man happy, while recollection makes him unhappy, under the precondition that he gives himself time to live, and does not in the first hour after his birth devise a pretext for stealing himself out of life again, because, say, he forgot something.” (translated by me from Hans Rochol’s translation to German, Felix Meiner, 2000)
- William James Sidis. *The Animate and the Inanimate*. 1925.  
 “[...] The behavior of drops of mercury on a smooth surface, consisting, we may suppose, partly of metal. These drops, in our universe, would roll around under the influence of any external forces that may happen to be present, unite if two happen to come together, and, in case they touch metal, the drop will shrink and partly amalgamate with the metal. In the [time reversed] universe, on the contrary, we have a different arrangement: the drops will roll around as before, but, in their rolling, will avoid the pure metal surfaces, but will tend to roll over the amalgam surfaces. When in contact with the amalgam, they will extract the mercury, and thus the drops will keep growing. When the drop grows in this manner to a large size, there will appear a constriction, and finally a division into two drops, each like the original. This action of ordinary mercury drops in the reverse universe corresponds in many details to the growth and division of living cells in our universe.” (quoted from sidis.net)  
 Ingenious observation, even though—from a strictly scientific point of view—rather an illusion: Life creates order locally, but at the same time exports disorder into the environment, hence only *mimicking* inanimate processes in reverse order, since inanimate processes often visibly reduce order.
- The *lunar nodes* in astrology are a concept that is quite similar to a Möbius strip. The two nodes, physically the points where the lunar orbit crosses the ecliptic, are always on opposite spots in the zodiac. So they trade opposing attributes with time, reminding of Yin-Yang. The nodes are also associated with reincarnation, which is a form of loops in space and time, and with happiness in life, which remind both of Kierkegaard’s considerations above.
- The concept of a Möbius strip is in a way so universal that practically all other concepts in astrology besides the nodes are somewhat related, too, but also none more than the other, except maybe Mercury, including its retrograde phases.
- The universality of the Möbius strip makes it in my experience a very helpful *tool* for learning to understand almost *any given thing* by trying to relate it associatively to the strip.  
 Note that, since almost any thing relates to the strip, one is often tempted to think that one has also learned something *specific* about the strip, but that is usually not really so. . .
- Quantum mechanical correlations are ‘both 1 and 2’ in a way. Two elementary particles with correlated quantum states can, depending on the experiment, be considered as individual particles or must be treated as an inseparable entity. Assuming the whole universe has come to be from pair production of elementary particles, any local measurement has in principle an effect somewhere else in the universe. This raises the question if what we consider macroscopically to be separate spots in space is fundamentally really so far away. Maybe it is just current perceptions that are limited, not much better than in flat-earth-in-the-center-of-the-universe times.
- Werner Held. *Die 1 und die 2*. FU Berlin (2000).

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Timeline

Some events related to exactphilosophy...

- 1998 First discovery disclosure, followed by further ones in 2000 and 2001. Unpublished at the time except for their cryptographic hashes / timestamps / signatures as proof of discovery.
- 2001 Idea to describe star signs via transitions between the four classical elements. The sun was in Aquarius, most likely it was already February.  
Discovery disclosures. March and May.  
Domain exactphilosophy.net registered. 19 March at 19:56:24 CET from Adliswil.
- 2002 Website exactphilosophy.net goes live. 20 June at 9:00 Adliswil. Publication of *A few new discoveries in physics* along with its initial one-page review. Announced in Usenet. Mixed reactions to say the least.
- 2004 Idea to define **elements in terms of in/out (space), rest/move (time) and their transitions**. Published the next day to Usenet, 19 May 2004.
- 2005 Current design of this website, centered around the above idea. Content generated using LaTeX. Fox icon 17 September ca. 7:50 Adliswil.  
In late December first version of the website with already the basic sections *space and time*, *metamorphosis*, *greek philosophy* and *i ching*.
- 2010 Added 'p' comet to fox icon, "foxyfox". 11 October 19:45 Adliswil.
- 2011 Ideas related to "Artemis, the secret surreal world of the moon". Published starting December 2014 to the astro.com forum. "Mondfaden".
- 2016 Article *Elementary Star Signs*, first German, then English. Late July.  
Specific idea how to arrange trigrams in a circle as elemental transitions between the four "Greek" elements. 4 Aug 2016 evening in Adliswil.  
Publication of the book *exactphilosophy.net 2016*. August.  
First version of the article *Elemental changes in the I Ching*. September. Mailed to dozens of historians world-wide.
- 2017 Article *Deep Learning and astrology*. December.  
Publication of the book *exactphilosophy.net 2017*. December.
- 2018 Publication of the book *Elementare Sternzeichen* in January and its translation to English *Elementary Star Signs* in March. Advertised in half a dozen astrological publications world-wide, six public reviews.  
New, more formal potential definition of emo as the difference between two images taken in short sequence. September.

- 2019 Articles *White-red-black and triple moon goddess* and *White-red-black and the "green" goddess*. April.  
Publication of the book *exactphilosophy.net 2019*. May.  
Renaissance of the original idea; formal definition of emo/ero moved to a later section, likely not fundamental enough to reflect immediate experience of being. December.
- 2020 Circumstantial evidence for how colors white-red-black relate to fire and moon, going back far in time, and likely led to classical Greek elements.  
Possibly some steps closer to describing the star signs in terms of transformations of elements defined purely in terms of in/out and rest/move.  
Publication of the book *exactphilosophy.net 2020*. November.  
Idea that the psyche may operate almost exclusively along the circle of elements.  
Publication of the pocket book *Space, Time, Elements at exactphilosophy.net*. December.  
Realization that Apuleius' tasks of Psyche likely draw more on Plato's philosophy and later philosophical ideas than on mythology.
- 2021 Idea that outside ero is more inert and thus 'heavier'/denser than emo, and inside emi is more inert and thus 'heavier'/denser than eri. January.  
Idea that in prehistory eri and emo would have been a single experience of life in the psyche, thus at first only three elements, colored white-red-black. January.  
Publication of the pocket book *Space, Time, Elements at exactphilosophy.net*, Second Edition. April.

© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Die neugierige Statue

Wie lange es sie schon gab, wusste sie nicht mehr, aber sonst hatte sie dank ihrer Neugier fast nichts vergessen. Manchmal stellte sie sich vor, sie hätte Schubladen in sich, etwa so wie eine Skulptur von Dalí, und plötzlich würde sich eine öffnen, und darin wäre dann eine glänzende Scheibe, vielleicht ja chrysolithfarben, je nachdem wie ihr gerade zumute wäre, und darauf wäre dann alles gespeichert, was ihr über die Jahrtausende so vor der Nase herumlief. Da sie so neugierig war, hätte sie natürlich auch brennend interessiert, wie die Menschen heute auf ihre früheren Zeitgenossen reagiert hätten.

Natürlich kann ich als Erzähler nun, solange das nicht wirklich passiert ist, nicht wirklich erzählen, wie sich die Menschen, oder auch die Tiere, usw., vor der Statue benommen hatten, da die Statue darauf das Copyright hat, aber ich kann vieles so erzählen, dass es der Spur nach plausibel erscheinen mag, und, wer weiss, vielleicht stimmt ja doch oft viel mehr als ich zugeben durfte?

Was sie ja ab und zu recht fuchste, war, dass sie sich selbst so selten sah. Irgendwann mal kamen ein paar Leute und setzten eine metallisch verspiegelte grüne Kugel neben sie und machten Fotos. Vielleicht war die Kugel auch blau, so genau hatte sie es nicht mit den Farben. Das hatte sich ja auch immer wieder gewandelt, manche Dialekte hatten gar nicht verschiedene Namen für grün und blau, oder für rot und gelb. Manchmal kamen auch Besucher, die voller Imbrunst erklärten, dass weiss und schwarz gar keine Farben wären. Was denn sonst, fragte sie sich manchmal, auch wenn sie natürlich in Quantenfeldtheorien bis hin zu Strings und Membranen und noch viel gewagteren Spekulationen seit der ersten Stunde sehr bewandert war.

Wann genau sie den linken Arm bis fast unter ihre Schulter verloren hatte, konnte sie daher nicht mehr so genau sagen. Vielleicht war es ja damals als die Tempelanlage um sie ... war das vielleicht sogar Delphi, oder Ephesus, oder doch irgendwo in der Tundra ... jedenfalls war da ein richtiges Chaos und viel ging kaputt; vielleicht war sie ja danach ein paar Jahrhunderte oder so in einer recht kleinen Kammer mit meist nur Ratten als Besuchern. Aber zurück zu ihrem Arm. Erst war sie enttäuscht, dass dadurch ihre Symmetrie gebrochen wurde, wohl noch lange vor Emmy Noether, aber dann bemerkte sie, dass gerade diese Asymmetrie sie geheimnisvoller machte, wenn sich die Betrachter im Geist den Arm doch wieder vorstellten, wenn auch oft nicht bewusst. Aber ganz so einfach gebaut war sie natürlich nicht, vielleicht hatte sie ja sogar damals das mit dem Arm genauso arrangiert, ganz im Wissen um die Wirkung. Schade allerdings, dass bei ihr nie etwas nachwuchs; so gerne hätte sie mit anderen Varianten und deren Wirkung auf die Betrachter experimentiert. Aber wer weiss, die Akropolis wird ja mittlerweile anscheinend auch wieder ganz ergänzt. . .

Am schlimmsten fand sie oft die Eltern oder auch die meist männlichen Liebhaber gegenüber ihren Geliebten, wenn sie ihren Begleiterinnen und Begleitern unbeholfen und unbedarft, aber sehr überzeugt scheinend, erklärten, was sie gerade zu sehen hätten. Dabei waren doch Kinder, ganz alte Leute, und die unscheinbareren Teile der Liebespaare, also oft die Frauen, gleich von Beginn weg viel näher an der Statue. Und das meine ich gar nicht mal so vegetativ als noch oder schon näher beim Tod, wie die kalte, unbewegliche Statue, die nur noch verfällt. Aber wieso doch nicht, das kann ich hier nun wirklich nicht verraten, beziehungsweise ist das doch eben so offensichtlich... Die wirklich wichtigen Dinge erklärt einem nie jemand im Leben.

Die so hochgelobte Renaissance! Ja, es stimmt schon, die Betrachter ähnelten da schon eher denjenigen in der Antike, und es gab dann auch genauso oft verirrte Gestalten, die sich an ihr zu vergehen versuchten, wo doch von Anfang an klar war, dass daraus nichts Ernsteres werden könnte. Wie stellten sich das die jungen Schnösel vor mit einer Beziehung mit ihr? Dass sie zusammen im Museum wohnen würden, er vielleicht als Museumswärter? Und ihre Kinder, wären das eine Art Roboter, die aus ihren Schubladen quellen würden, und dann was? Sie geheim halten wäre schwierig, denn so konsequent stillhalten wie ihre Mutter könnten sie ja doch nicht, und wenn bekannt würde, was sie wären, dann wäre wohl jede Chance auf ein gemeinsames Familienleben vertan. Da wären ja die altbekannten Geschichten mit den Melusinen, oder hiessen sie Meerjungfrauen, und wieso eigentlich Jungfrauen, noch ganz harmonisch im Vergleich. Aber sie fühlte sich natürlich auch bei den hässlichsten Kandidaten immer doch noch insgeheim noch ein wenig geehrt, denn, wie gesagt, ihr wirklich was antun konnte sowieso niemand, und daher hätte sie wohl auch niemals Nein gesagt, wenn sie da Stimmbänder gehabt hätte, nicht zuletzt da sie eben so neugierig war. Oder hätte sich doch ab und zu auch mal Nein gesagt, einfach um dann die Reaktionen zu sehen, oder vielleicht eher weil es ihr mit der Zeit langweilig geworden wäre?

Männer schauen ja meist viel weniger in den Spiegel als Frauen. Daher kann es schon sein, dass die Statue über die Epochen auch gewisse männliche Züge entwickelte. So konnte sie auch gut verstehen, dass z.B. für einen Harley Wiesenstein, wenn auf seiner Netzhaut die Bilder einer sehr schönen Frau erschienen, er nie bedachte, dass es von der Frau aus gesehen einen grossen Unterschied machte, ob er nun 20 oder 60 Jahre alt wäre, von anderen wohl kriminell arrangierten Umständen mal ganz abgesehen. Aber bei allem Verständnis, war ihre Verachtung und Solidarität mit ihren vergleichsweise so kurzlebigen Schwestern immer auch fast ohne Grenzen. Sie hätte jede Petition und insbesondere jedes Kunstprojekt gefördert, das dem Einhalt gebietet. Böse Stimmen mögen nun einwenden, dass sie das genau dadurch wieder zum Thema macht. Ja, genau, aber gespielt, mit voller Intensität, und daher ideal geheilt und umgangen. Oder glaubt ihr tatsächlich, dass ihr die Männer ändern könnt, statt sie nur immer und immer wieder geschickt abzulenken? Daraus ist doch nicht zuletzt nach Freud die ganze menschliche Kultur entstanden. Aber vielleicht spricht daraus ja doch nicht mehr die Statue, sondern nur ein sogar vielleicht aus Nachlässigkeit nicht ganz so genau gelenkter Erzähler? Oder ist auch das wieder ganz absichtlich von der Statue? Tja, die wirklich wichtigen Dinge erklärt einem eben nie jemand im Leben...

Ich kann es übrigens kaum glauben, dass das heute einfach so entsteht, nachdem ich die paar vorherigen Tage schon einiges geschaffen hatte, fast wie ein Gordischer Knoten, der sich endlich ein wenig lösen würde. Und Nein, die Idee mit der Schublade ist nicht erst vor zwei Wochen entstanden nach dem Publicity Stunt von Banksy mit dem sich selbst schreddernden Gemälde, sondern ist bereits einiges älter, vielleicht so um 2010/11 entstanden, aber so ganz genau weiss ich das nicht mehr, aber sicher einiges vor Mitte 2015. Also die Idee natürlich nicht weitersagen, einfach machen...

Na ja, jedenfalls war das Mittelalter schon auch recht interessant für die Statue; auch wenn dann das Interesse eher gering war, waren die wenigen Begegnungen damals oft recht vielfältig und interessant. Ganz erstaunlich waren immer wieder die treuen Elstern. Aber damit sollte ich nun wirklich schliessen, sonst verlaufe ich mich vielleicht noch ganz.



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Elemental improvisation

The text of an early, unpolished attempt at “*Elemental*” by Jack Daw, as it emerged essentially 5 August 2019. No typos were touched, and note that the changed layout broke one joke at the bottom of page 4.

### 1

Jack woke up dreaming of a parking meter casting a yellow shadow into the snow. Somehow that seemed familiar and he started putting the first letters of this paragraph into a line. And gave up.

First thing he had to remember is not to try to be too original or otherwise funny. That’s what naive first time writers always get wrong. And be consistent with time, not mix up past and present. But that is actually already quite a bit into this story, time varies.

Cynthia was still there, as she almost always was, except maybe that week each month, which still surprised him each time. Maybe he should simply write it down, can’t be that hard. But no, when she was not there, he did not feel like writing it down, when she was back, such things did not matter.

Let me tell you a secret: Marcel Duchamp’s ready-made sculpture *Fountain* was at first simply an April Fools’ prank. He was just fooling around with his friends, as usual in the Bohème, when they came up with the idea to submit an urinal to an art fair that said it would accept everything. As always, the Bourgeoisie failed once more gloriously at deciphering.

That was in April 1917, rooted also in Dada. Dada is a children’s word for hobbyhorse and also means hobby in today’s usual sense. Now, by laying the urinal down, it resembled more a bidet (hence *Fountain*), which originally is the name of a French horse race of relatively small horses. The French nursery rhyme “à dada sur mon bidet” means “to play gee-gees”. Anyways, this was the start of a billion dollar business of modern art, using rather found items instead of made ones. And, considering how far this joke has gone, there is no stopping it.

But wait. This book is not going to be so superficial. Modern art, especially if to a large degree found and not made, really does have a great effect on the mind. More so than most carefully crafted oil paintings. Why this is so, is, of course, a difficult question, which will only be gradually answered here between the lines. Or maybe not, a lot is usually in between.

By now you are maybe wondering what this is all about. Where is this book going? What is this all about? Should I read on?

Yes. I think you should. Definitely.

This book is about new ways of seeing the world that go beyond the world views that have emerged in the late 18th century. Since then there are many different views that seem to be fundamentally incompatible with each other, like, for example, astronomy and astrology. Astonishingly, they would all go together quite nicely without requiring any new physics. It is just a matter of looking at things from the right angles. Almost anybody can profit from that.

But back to the story, back to Jack and Cynthia.

"Dawy, wake up." purred Cynthia.

Jack started to move and scrubbed his eyes, which proves that he is a real human being, not just a character made up by some writer.

"Jackiee, do you have your notes on the elements ready?" he heard.

"Well, sort of, but it is all just preliminary. Nothing is conclusive, yet."

"Show me."

It should be noted that in my "encounters" with Cynthia things were seldom quite like that in reality. She was usually quite ambivalent, often all possibilities made sense to her, to a point, which is quite wise and natural. But sometimes she had quite a decisive opinion, which I usually did not dig. It took a while usually, with a lot of back and forth, until I usually realized that she was right. But who wants to read all that in detail, over and over again? So I created a more streamlined Cynthia who always knew from the start and a Jack that would often just listen. More Hollywood style. Not quite like this paragraph.

Jack showed her. Of course.

"It starts with Kant and his early chapters about space and time in *The Critique of pure Reason*. The most interesting part is that he essentially bases his reasoning on immediate subjective perception of the world. You open your eyes, and you see. There is you and an outside world that you can see, and you can see more than one thing. That is space, in its most immediate definition.

Then you quickly notice that some things move and others do not, both inside and outside. That is time, again in its most immediate definition of moving or being at rest.

Thus there are a priori 4 different kinds of things: What moves outside, what rests outside, what moves inside, and what rests inside. I simply call them *elements* and name them as follows:

|            |              |                |
|------------|--------------|----------------|
| <b>emo</b> | <b>moves</b> | <b>outside</b> |
| <b>ero</b> | <b>rests</b> | <b>outside</b> |
| <b>emi</b> | <b>moves</b> | <b>inside</b>  |
| <b>eri</b> | <b>rests</b> | <b>inside</b>  |

So emo would be short for 'element that moves outside', and so on."

"Nice, but isn't that a bit abstract for the average reader? Can you explain it so that everybody understands?"

"Not really, I guess, I have been trying for almost 20 years now and nobody seems to grasp any of it. But maybe you can make the concept stick?"

Cynthia lifted her shirt and showed her boobs, still in a bra. Nothing moved for the moment.

"Stop looking at my eyes and focus on my boobs. OK, now close your eyes. What do you see?"

"Still your boobs, but just after I closed my eyes, the boobs started to move, as I started to think about all kinds of other things."



Cynthia sighted, far from amused.

"Open your eyes again, focus, close your eyes and stay focussed, what do you see?"

"Your boobs, just as outside, but now inside."

"Good, that is the first step. Now imagine them whirling and then open your eyes again."

Jack did, and, yes, when he opened his eyes, her boobs were actually also whirling outside, convincing him finally that his mind had the power to do it. This would come handy at some point in his life.

"You are drifting away again, Jackyboy. Now, explain inside and outside and what this has to do with space. You know, in science space is three dimensions and only exists outside in the real world, not in the mind. Hardboiled egghead scientists are impossible to convince, anyways, but you can pretend."

"Maybe I could make a drawing?"

"In words, Jack. People are not that stupid. They can imagine simple things if you explain them carefully step by step."

"But maybe they will just be polite and pretend they did."

"In words, Jack, now."

"OK. Let me see. How do you define space. First you need 'things', at least two 'things', if only, say, a surface that is half black and half white. So you can distinguish between them. Space is difference maybe?"

"Yes, it is."

"Even if you open your eyes and just see an entirely black surface there is a difference between you the observer who opened your eyes and the black surface outside. So space again. And, of course, a black surface can also be imagined inside the mind with the eyes closed, so that there is again a difference between you and the inner black surface. All in all, that is fundamentally what space is."

"Yes, a bit oversimplified, but this should do for the moment. Maybe even for this book."

"Now time?"

"Yes, please."

"Yeah, but...", Jack hesitated. "You know I have now been considering ways how to tackle all what would now come into this book for more than a year and did not get to any conclusion. And now, one day, out of the blue, this book starts to write itself. Not what I had planned. Isn't your role in this degrading, you just show your boobs in scene one?"

"Did you force me to show anything?"

"No."

"I was still wearing my bra and could the reader see my boobs in the bra?"

"No, they could imagine, but I guess they also could if you had not taken your skirt off."

"Some would, and worse. And now the most important question: From an artistic point of view, did doing it this way help people reading this book to make this crucial part of the book something they will remember for the rest of their lives?"

"Possibly some. Maybe even many. You are right. I guess to be remembered, something must be surreal. Thus convincing with such a theatrical effect and art come hand in hand."

"Boob in boob. Now what about time? Seems easy, rest and move. But how about the view in science with time as a separate dimension?"

"Nobody has ever made a photo of time. What can be observed is that what one sees changes. Say, a black surface outside that starts to become gray and then white, and then maybe green, or only parts of the surface that change color. If now colors change such that, say, a white full circle on a black surface is first at some spot, and just a tiny moment later there is a full white circle a bit to the left, then one usually interprets that as an object that has moved, maybe a golf ball. But in any case, motion is change, is time in its most immediate definition. Objects and then velocities as space crossed per time are secondary, abstract concepts on top of immediate perception."

"OK. Shall we have dinner? Relax a bit?"

"But I just got up. Even if I cannot afford a continuity supervisor, such a basic error should not occur."

"But morning and evening are more romantic, so lets skip the day and go right to dinner."

"If only Galileo had waited until after dinner before asking the cardinals to look through his telescope at the moons of Jupiter, just like his house keeper suggested in Brecht's play."

Cynthia smiled knowingly, apparently having been there, done that. "Now that we have had dinner, lets cosily lay down together and discuss things further."

## 2

This time Jack woke up without memory of any dream, which puzzled him. Usually he remembered them. As if one could possess dreams anyways.

Cynthia was not there. So Jack sat on his table. Sorry, on the chair, at his table, which was also his. The chair not the table. But the table was also his. He started to paint. Something like a lion maybe, as an ancient guardian of time.

If there are four elements, can they change into each other? Yes, of course. Imagine a scene were everything rests, say you are lying in the grass in summer and looking at a large apple tree, or maybe a cherry tree, but let's assume George Washington as a kid was not around.

So practically everything rests, at some moments there is maybe even no motion outside. Then there is some wind, some leaves move, maybe even smaller branches, and maybe some birds and insects fly. So part of the outside world has gone from resting to moving. In other words, some ero apparently transformed to emo, and also back to ero again.

"Did you start without me?" Cynthia had brought some baguette, wearing a horizontally striped shirt and a beret. Jack was not sure if all of that was for breakfast or if she wanted to illustrate something with these items. US stereotypes of France? He sort of felt like she was secretly trying to teach him something, but was not sure what.

Maybe not to let just a few words of a paragraph slide over to a new page? How is that called again in typography? Something demeaning to women, as far as I remember, or to unlucky children.

"Daw-daw, come on, you are deviating again, and above all, all of this about the elements is still too abstract for people at this moment. Let me reboot, with a completely different approach to the world. Something that people can really relate to from everyday life. But don't make it too simple, they have to feel their power to understand.

Now break a piece off the baguette without looking too gay or too French, or even a lusty female, and start telling readers the basic idea; how life evolves into more complex collective life forms."

"Still a large topic."

"Remember last night?"

"Yes, that was beautiful."

"Want this night to be as beautiful?"

"It is not sure how exactly life started out on earth, but at some point relatively early there were individual cells. Each cell had its own bubble, was its own independently living organism. Each cell had some DNA-like structures inside and some internal organs for producing molecules based on that genetic information. Cells could divide into two cells.

But at some point, maybe first because some cells accidentally stuck together, cells started to form larger collective organisms consisting of several cells. At first all cells were probably the same, like in volvox algae. But then some cells started to specialize. In complex organisms like the human body, cells are highly specialized, like in the brain, in muscles, in bones, in the liver, even the fat cells of your asses."

"You cannot insult the readers like this. They will resent this and put the book away. You just called them implicitly asses and especially the women implicitly fat. Excuse yourself and make it good."

"OK, sorry readers. The fat tissue in various parts of the body is also... Wait a second, that could be taken the wrong way again. Fat cells store extra energy in your body. Should you ever need them in extreme situations, like in a war or after a plane crash in the Himalaya, you know where to find it."

"That was lame. And you know it."

"Yes, but also fun. But seriously, the ladies cannot be fully satisfied. Should I tell them that the fat that makes them look beautiful, almost independently of the total amount, as long as it is roughly distributed in Venus proportions, that this fat is alive, part of their bodies, or should I actually lie to them?"

Cynthia made some strange expressions with her face, and maybe also with her body, maybe a bit like the dictator in that over the top of the top novel by some expressionist painter or rather drawer. Anyways, after apparently having considered and lived through everything my words had evoked in her, she smiled. Not entirely without a threat, but essentially satisfied.

Jack smiled, too, which may have been a mistake.

"Well, Jack, Jack, Jack. Why don't you just go on telling people what they are made of."

Jack had completely lost track but continued.

"Individual cells in a human body are like individual people in collective beings."

"As simple as that?"

"Well, maybe not. But hard to judge. How would a single, forced to be simple minded, cell in the human body be able to even perceive the body as

a whole, yet be able to understand what the whole body is all about, what it feels, wants, thinks, believes? No chance. Similarly, individual people cannot fully grasp all of that potential complexity that they are part of."

"So speaking of collective beings made of several or many people is purely hypothetical? Cannot be proven at all?"

"I see what you mean. Well, individual people are still a bit more intelligent than individual cells, and the compounds they form may not be all that intelligent, or sometimes even just quite primitive beings. So, yes, I think this might still be amenable to individual people to a point."

"Just more hypotheses." she made it clear with her face that the question was purely hypothetical. Jack hoped she would suggest dinner. But not today.

"Jacksy, are you still there? Let's go out, the sun is shining, and, as you can see, we are in sunny Paris, France. What a neat morning."

Jack wondered who had replaced Cynthia with a robot alien 50s housewife.

It really was a beautiful morning. But Jack woke up again. This time he was not sure if time had just slipped either way, or if he had just dreamed all of this. But Cynthia was still there or again, in a horizontally striped shirt and with a beret, but no baguette, so they skipped breakfast and went out of the apartment.

It still was a beautiful morning.



© 2002-now Alain Stalder  
admin@exactphilosophy.net

# exactphilosophy.net



avantgarde

## Visual art gallery

All by me, nothing for sale.



*Untitled.* Digital photo (3968×2976 pixels) of a still wet Chinese ink painting on table. 2018.

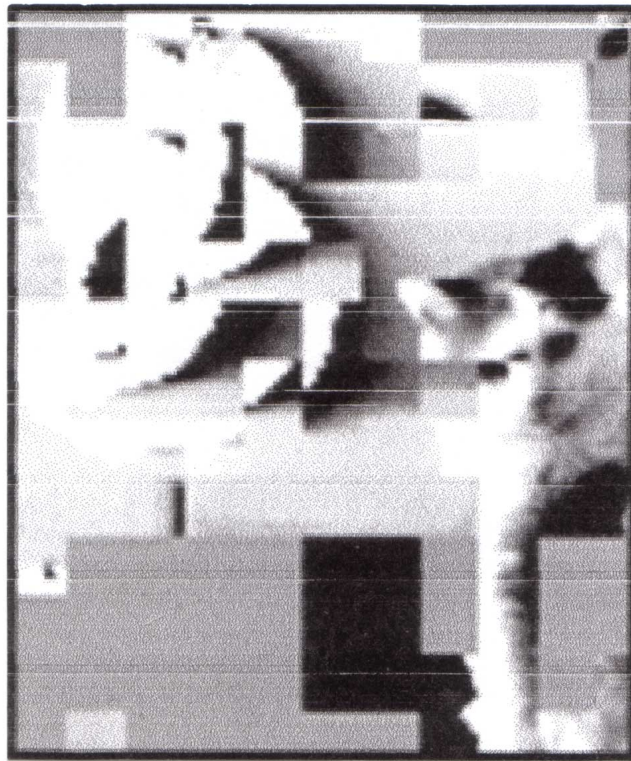


*Wunder* (engl. *Miracle*). Digital photo (3264×2448 pixels) of a bird's nest. 2013.



*Musterli*. Diapositive (Kodak Ektachrome 400) of the cat Musterli in a chair. Digital scan (6560×4304 pixels). 1980s.





*Cubistic Mimi.* Early video conference across the Atlantic between me and my parents at home in Switzerland; my mother holding the cat Mimi in her arms. Digital scan (1002×1192 pixels) of a printout (still exists) of the original digital image (lost). 1995.



*Artemis*. Digital photo (2592×1944 pixels) in the infrared spectrum. Taken at Fondation Beyeler; silhouettes include sculptures by Alberto Giacometti (left, behind windows) and Louise Bourgeois (right, behind windows, plus one leg of *Maman* in front). The hourglass silhouette to the right could not be identified on non-infrared images taken shortly before+after. 2011.



*Fly like an eagle.* Crayon and felt pen on marker paper (A3). Inspired by a dream. Includes traced "copies" of several photos from magazines, including from Egypt near the Aswan Dam, Mykonos, Istanbul, Hawaii, and Monaco with airplane+house (by Helmut Newton); the lady in the front is from an ad for *Opium* perfume by Yves Saint Laurent. 1992/93.



*Magpie*. Digital photo (3264×2448 pixels) of a Chinese ink painting (38×24 cm), taken while still wet on the black painting pad. 2013.







The website [exactphilosophy.net](http://exactphilosophy.net) as a book; all web pages and all English articles in a single volume.

The core content is a new way of looking at the world: Based on immediate preception of the world inspired by Kant, “elements” are defined which resemble ancient greek elements closely and also span the world in often much more coherent ways than contemporary science; at least the range of naturally derived phenomena largely exceeds what is currently amenable to exact sciences.

Besides the core content there are also some original and often quite self-contained articles about elements, astrology, physics, philosophy, art, and more. A real treasure trove for anyone with a mind free enough to “think outside the tesseract” about close to anything.

**Artecat**  
Alain Stalder

