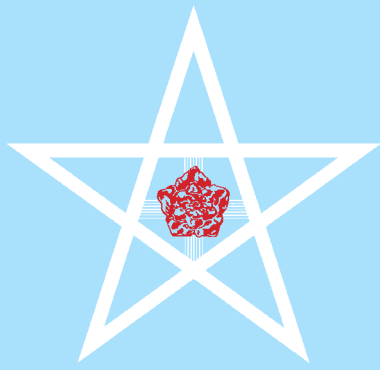
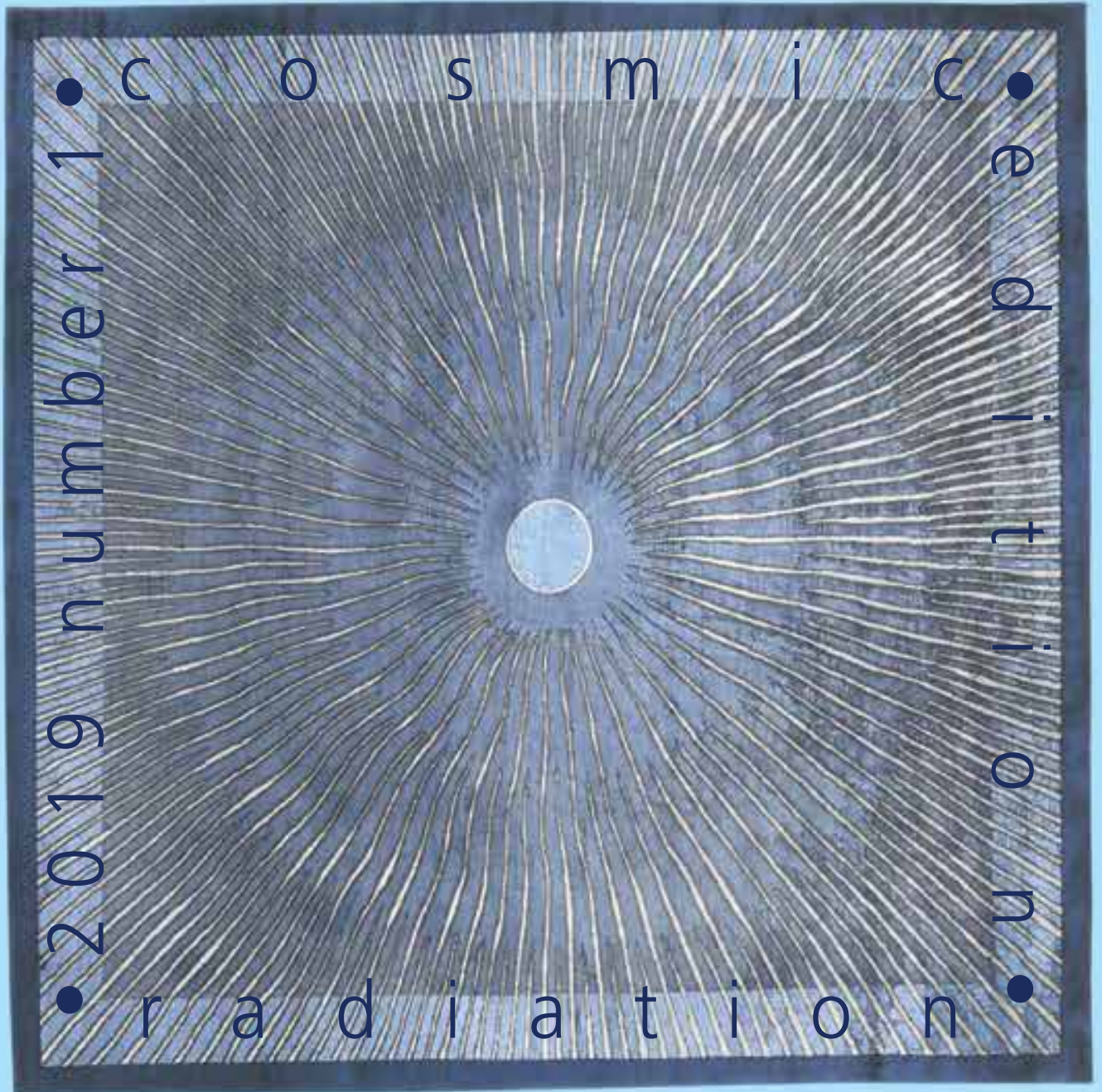


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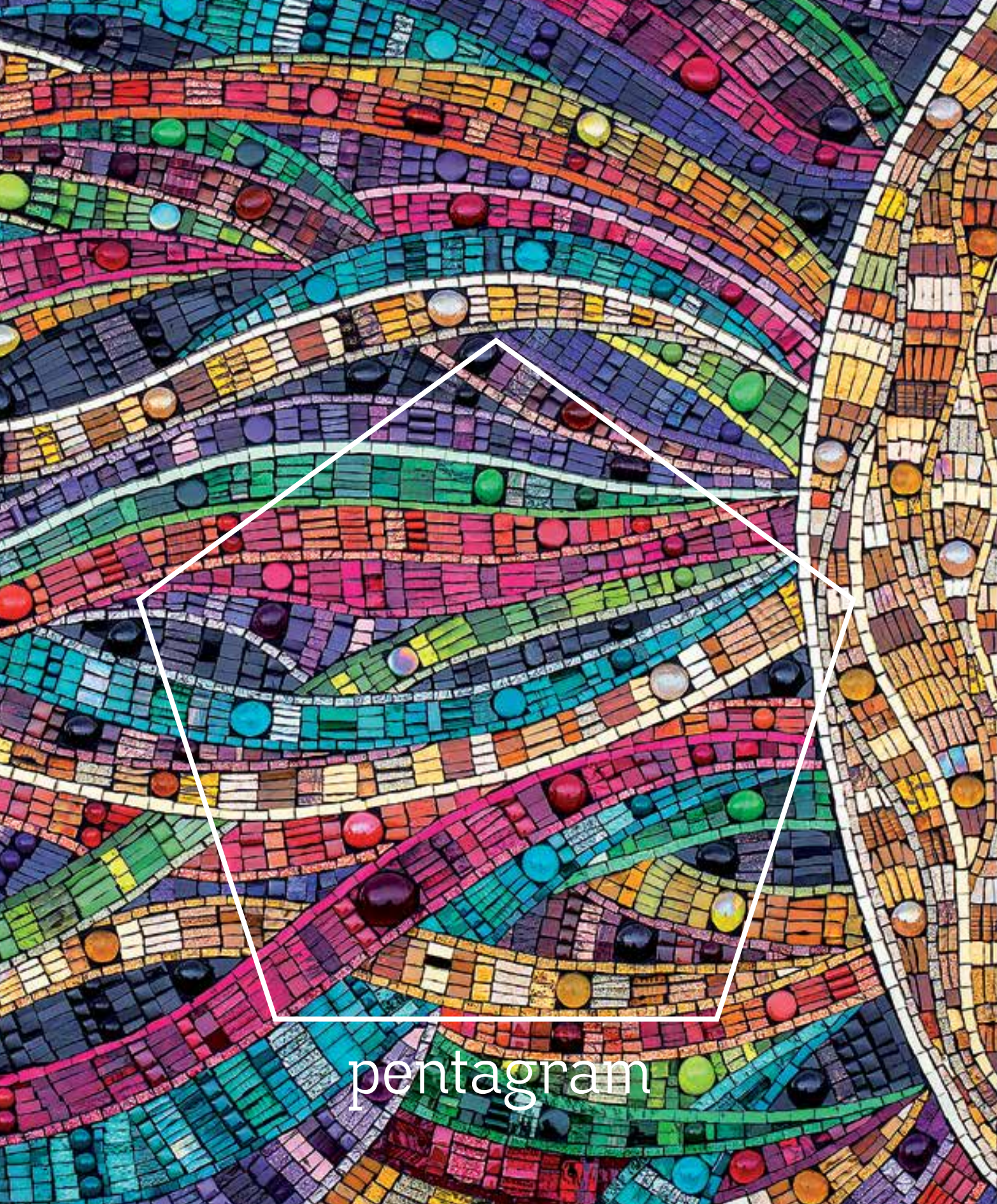


pentagram

Lectorium Rosicrucianum



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Volume 41 • 2019 issue 1

pentagram

Examine the way in which you shine

In the past, when radiation was still good for us, such as the radiation from the sun, the image was simple: a source with a number of outgoing rays, as the cover of this edition shows. Shown as an artistic carpet, the impression is that of beneficence - pleasant to the feet. And the colours in which the rays emanate are beautiful when they reflect in an object or mosaic, such as in the mosaic 'Radiation' of Julie Edmond on the inside of this cover.

Since then, the nature of radiation has changed. Later in this issue, Vera Verhagen clearly depicts the effects of the excess of artificial electromagnetic radiation on the delicate tissues of the human body. Some people are extremely sensitive and suffer a great deal from it. Yet society can no longer do without it - our daily lives would be totally disrupted. That indicates a question of development. What is man forced to do by the environment he creates for himself?

The answer may lie hidden in the nature of radiation itself, to be found some time in the future, but that search for another way already shows that to live a soul-life is no longer enough. Radiation drives us to become a spirit-man, that is to say, an expert in the radiation laws, and so be able to control them.

The old soul-life no longer suffices, and whatever we do, a new spiritual perspective is needed. And just as at first the negative soul-life has dried up, with its devotion and sentimentality, now its physical counterpart follows: there is a weakening of the natural life that seems to determine our consciousness. All around there is transition and transmutation, and it seems impossible to maintain the old ways. One can conclude that we need to research the way we shine; we need to research how all radiation works in us, and so find the only source that increases when we give it away: Love.

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Book review

World image



Light of the World
There he is, Bramante's Christophorus made around 1490. See that hand, full of force as he grasps the stick that must support him when he carries others. He laughed when he had to bear the beautiful child, the light of the world, to the other side of the river - he was confident that he could. But on the way, his load proved heavier than he expected - especially so - and he felt he had only half his usual strength. He did not know where the other half went. Yet he carried the child on his shoulders and set out on the slippery path towards the water. In this way, 'the rushing violence of the stream' was traversed by the light of the world. And when the violence of nature was too strong for the man, there was the child - light, marvelous, of wise counsel, the might of God. Other forces became available. And together they reached the other side.

The seven-in-one

The release of new pure energies



A magnetic system, like the Spiritual School is, has seven aspects that manifest themselves in seven rays. It is to be understood that such a magnetic system sends out one ray which includes the seven rays. The seven rays separately can be active only inside, only within the magnetic system as a whole. Therefore, they apply only to those who live and are developing in the magnetic field. A being has to be inside the gnostic magnetic body to benefit from the salvation of the seven rays in their variety. This is why we received just the electromagnetic radiation from the magnetic systems of the gnostic Brotherhoods which have preceded us in glory. When the work of the modern Spiritual School began and developed, only this fundamental force was given to us.

If a group then gives evidence of a reaction to this fundamental ray, it is obliged to liberate from it the building, sanctifying force by self-freemasonry in insight, yearning for salvation, self-surrender and a new attitude of life, and so will differentiate the fundamental force. That is the meaning of the words: "Work out your own salvation in fear and trembling". It is the fundamental force in which all is contained that is placed at our disposal. The seven rays are included in this force.

Each serious pupil, each group of such pupils is able to evoke the sevenfold force from this fundamental force. If this sevenfold force is freed, then it constitutes proof that the group in question is sufficiently mature to receive it and assimilate it according to its holy purpose.

Metaphysical circles eagerly await the descent of the Holy Spirit. Thick books have been written about it. Well, its non-appearance is always the judgement of truth, this judgement being, of course, equally applicable to us. In the present magnetic field of the modern Spiritual School the sevenfold power, the Holy Spirit, begins to manifest Itself. He who does not experience it and so does not show it in a clearly demonstrated attitude of life, must look for the reason within himself.

On the basis of the fundamental force, by rotation and increased vibration, by attraction and repulsion we see: firstly force, secondly light, thirdly heat, fourthly sound, fifthly cohesion, sixthly life and seventhly movement. All that we could possibly understand with regard to transmutation and transfiguration lies hidden in this sevenfold liberation. We can realize everything by means of this sevenfold power. All that the universal doctrine holds out to the candidate as a prospect of life and regeneration will manifest itself in the magnetic body of the modern Spiritual School and we, by following the Brotherhoods that preceded us, can also go this way.

[...]

We can mystically define the electromagnetic radiation, the fundamental force, as the divine Breath, as the divine Word, for the Breath of God moves over us in a certain rhythm, in a certain vibration. Consequently, there is a hidden meaning in it: a holy word literally speaks to us. This word is called in the universal doctrine: the mysterious name of God, consisting of six or seven letters. It is a definition of the holy Seven-power, the seven gnostic powers, by which the sanctification of the one who is returning to God can become a reality; the name of God is the Gnosis itself, it is God Himself. Everything can be realized with these seven rays. Firstly, the fundamental force is given to a group and then, in the fulfilment of the demand, the six other realizing forces will come into action. That is why the name of God is also defined as the mysterious, ineffable name of six letters.

The seven vibrations or radiations emanating from the Seven Spirit are sometimes called the Breath of God, or the mysterious name of God, which consists of a fundamental force and six operative forces or letters. They cause transmutation both in the group and in the striving human, which ultimately manifests in a completely new way of life.

J. VAN RIJCKENBORGH

The one who misuses this Word, as natural religious man does, in fact, swears. To speak the holy name of God means undertaking the rescuing work for the sake of fallen humanity, realizing God's plan of deliverance in oneself and for the sake of others, using the powers given for this in a self-ignoring, new attitude of life. That is the service of God that is speaking the name of God in deed and in truth.

The electromagnetic radiation, the Breath of God, the word of God, the holy name of God is no radiation power that only sets matter into motion, no, the universal Doctrine states with emphasis that the Breath of God is a substance in itself that flows through space. This is why the Bible speaks of the river of God. It is a gulf-stream of divine Breath, in which at the same time astral force, astral substance and the four holy foods develop. This stream of divine substance can be transferred to other bodies and is able to change those. It penetrates everything, moreover, it wields power.

He who hears and experiences this word and reacts to it will see that it becomes light in the course of time, will experience it as light, next as heat and then as sound. Light, heat and sound, the three forces which transfigure the soul of the candidate. Light, heat and sound in this sense are very subtle states of original

substantial transmutation within the system of the candidate: a threefold faculty, a threefold magnetic force by means of which the dialectical structure and all that is unholy in the microcosm is seized and broken up.

In such a way, a new structure becomes possible. An atomic transmutation takes place, followed by a completely controlled chain-reaction in accordance with the Word. After light, heat and sound will then follow cohesion, life and movement – the manifestation of the new glorified body. It is a junction of cell structures into one body that eventually enables the candidate to practice a quite new state of life inside the new heaven-earth, which development keeps pace with his personal development. If we take one step together in this direction, we will discover that the force-field goes with us. If we change, the magnetic body will change accordingly. In this way, we are literally on a journey. In this way, at a given moment, this whole composition of complicated developments will disappear out of sight of dialectics into the cavern of the Mysteries. Once we enter there, we shall never return. ✨

[From: *The Gnosis in present-day manifestation* by Jan van Rijckenborgh, Part III, Chapter VII, *The descent of the Holy Spirit*]

High energy astrophysics

The study of high-energy radiation from the universe

The radiation we call 'light' is only one small part of the electromagnetic spectrum. The entire spectrum extends from very long wavelengths or low frequencies, and thus the low energies we commonly call radio waves, to the short wavelengths that have high frequencies and therefore high energies and the ultra-short wavelengths that we call Gamma rays.

High energy is the radiation that goes above ultraviolet, which are called X-rays and Gamma rays.

What is X-ray astronomy

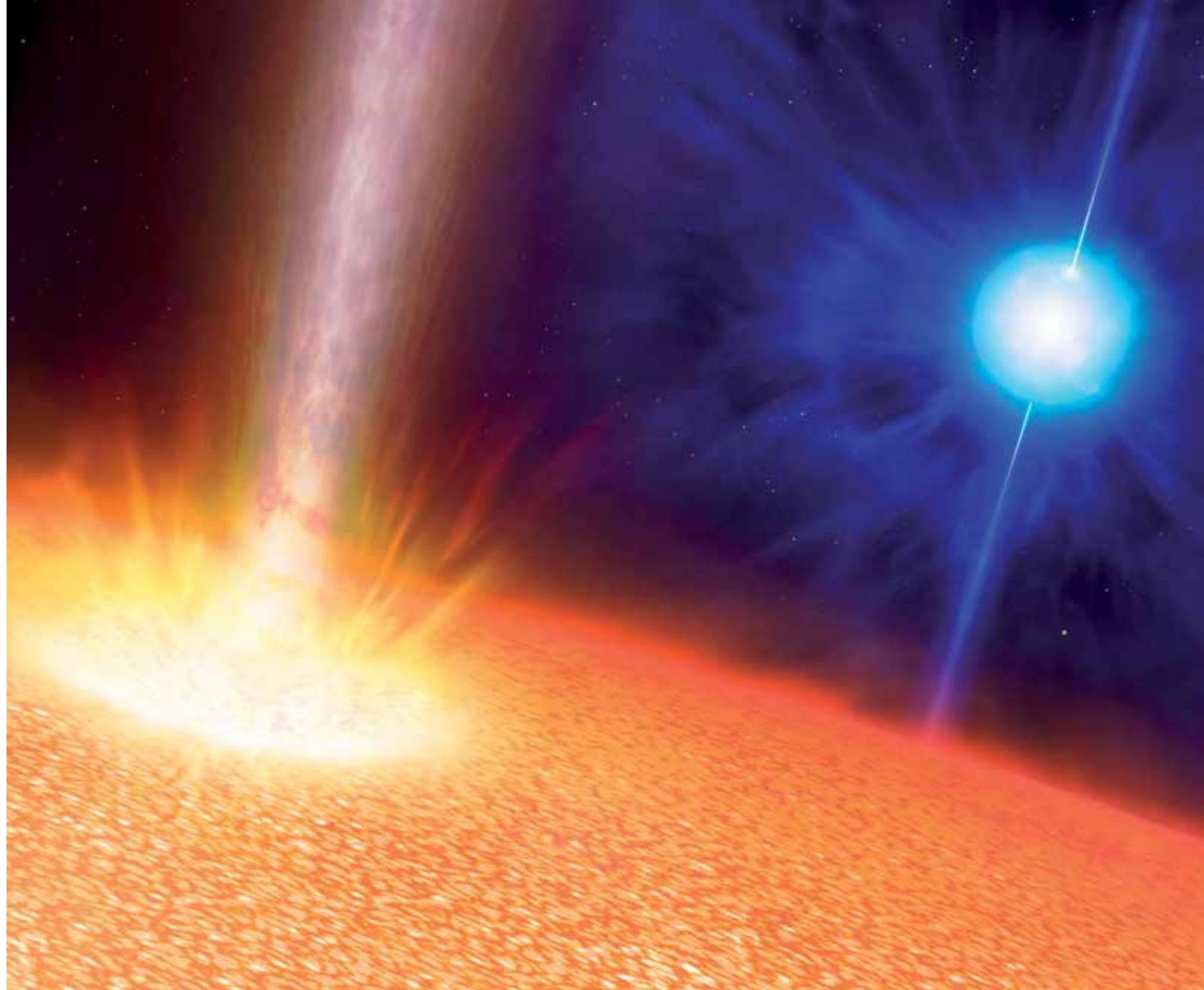
X-ray astronomy refers to phenomena that occur at the end of the life of a star: supernova explosions, neutron stars and stellar black holes. Far beyond our own Milky Way, X-radiation is emitted by active galaxies (radio galaxies, Seyfert galaxies and quasars) with swelling super-heavy black holes in their centres, and through clusters of galaxies, the largest physical formations of our universe. Modern X-ray telescopes are also used

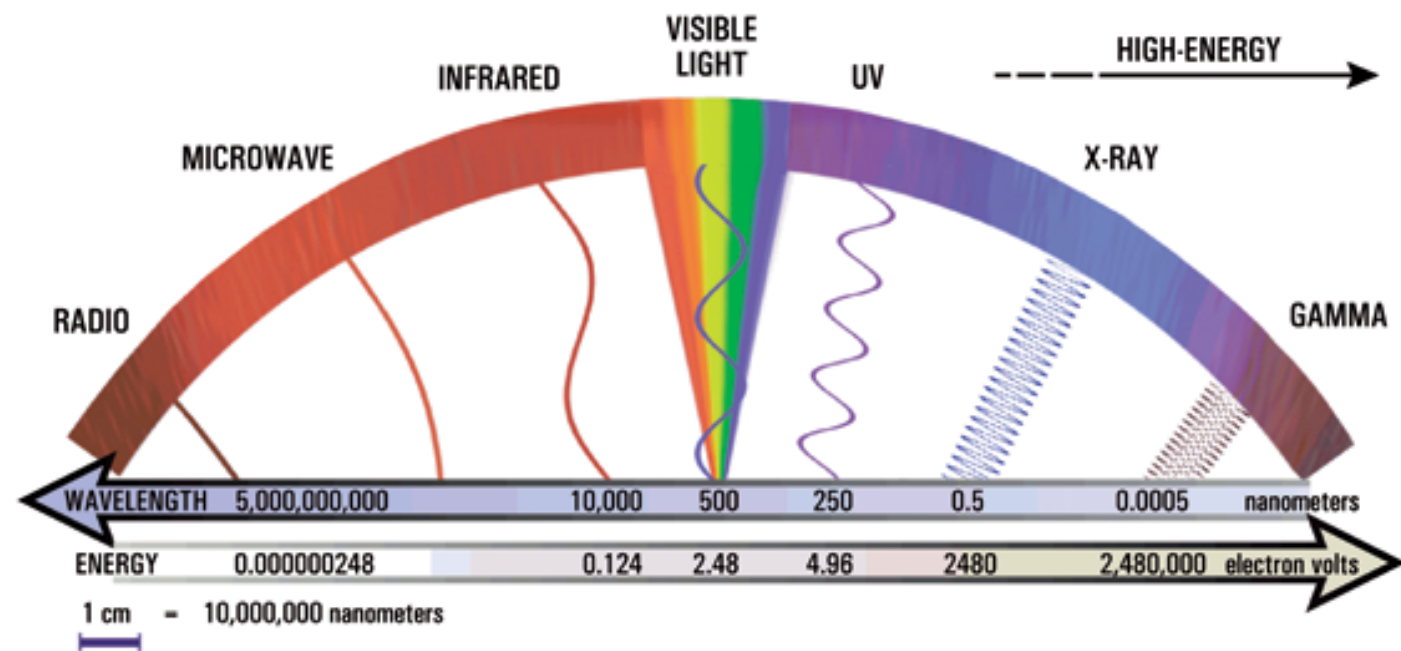
to study normal stars and galaxies, and even comets and planets in our own solar system.

What is Gamma radiation?

Gamma radiation is the most energetic form of electromagnetic radiation, with

NASA registration of gamma-ray emissions. If gamma rays, which are highly radioactive, pass through tissue or other materials, atomic nuclei disintegrate (electrons become detached from atoms) and can break down chemical bonds. Gamma radiation is 'ionizing', i.e. radiation that is so strong that it can project an electron from the outer shell of an atom, giving the atom a positive instead of a neutral charge. The atom is then ionized and becomes an ion.





more than 10,000 times the energy than photons of visible light. If you could see gamma rays, the night sky would look strange and unfamiliar. The familiar sights of constantly shining stars and galaxies would be replaced by something that constantly changes appearance. Your gamma-ray light could look into the hearts of solar flares, supernovas, neutron stars, black holes and active galaxies.

Gamma-astronomy offers unique opportunities to explore these exotic objects and the most energetic phenomena they produce. By exploring the universe with these high energies, scientists can search for new physics, test theories and perform experiments that are not possible in earth-bound laboratories.

What is sidereal radiation?

‘In the cosmos,’ so writes H. P. Blavatsky in her Esoteric Instructions, ‘the gradations and the interrelationships between colours and sounds are infinite. There is

also this presumption in physics, for it has been discovered that there are slower vibrations than those of the red, the slowest we can perceive, and much faster vibrations than those of the violet, the fastest that our senses can perceive. But on earth, in our physical world, the range of observable vibrations is limited. Our physical senses cannot take notice of vibrations above and below the limited spectrum of the seven prismatic colours, for such vibrations cannot bring about the sensation of colour or sound within us. It will always remain the step-by-step sevenfoldness and nothing more, unless we learn to negate our four lower senses (the lower vehicles) and with our spiritual senses, situated in the upper triangle, observe both these higher and the lower vibrations.’

The sidereal or astral substance has a vibrational scale that varies in the seventh cosmic plane from about 450 billion (million x million) periods per second to about 700 billion periods per second (hertz).

In *The Egyptian Arch-Gnosis* and her call in the eternal Now, part I, chapter 18, Jan van Rijckenborgh explains that the new astral field of the modern spiritual school is a concentration field of astral substance with enormously high vibrations. In the cosmic planes that go beyond the sixth plane, the factor of time ceases to exist at a given moment and a new condition develops, which one associates with the concept of eternity. ☼

An Essene Hymn

A VERY ANCIENT REFLECTION



I thank you, Heavenly Father, because you have placed me at a wellspring of flowing waters, in a fertile region, in the midst of an arid and parched land, spraying an eternal garden of miracles, wherein is the tree of life, mystery of all mysteries, bearing branches for eternal propagation, sinking its roots into the stream of life, gushing forth from an eternal source.

The three Marys at the tomb of Jesus, from the Hungarian twelfth-century Pray manuscript, a collection of medieval religious manuscripts. The writing is kept in the national Széchényi Library of Budapest.

I shall praise your works with songs of gratitude, all day long; from the ascent of the light until the night falls and the light disappears; from when darkness flees and daylight approaches, yes at all times.

I have been granted inner sight and through your spirit within me I have heard your wondrous secret. Through your mystical insight you have caused a fountain of knowledge to well up within me; a fountain of strength, pouring out streams of living water; a wave of love and all-encompassing wisdom, as a brilliant glow of eternal Light. ☼

High frequency radiation: definitely no healing energy

BY VERA VERHAGEN

THE DARK SIDE OF WIRELESS COMMUNICATION



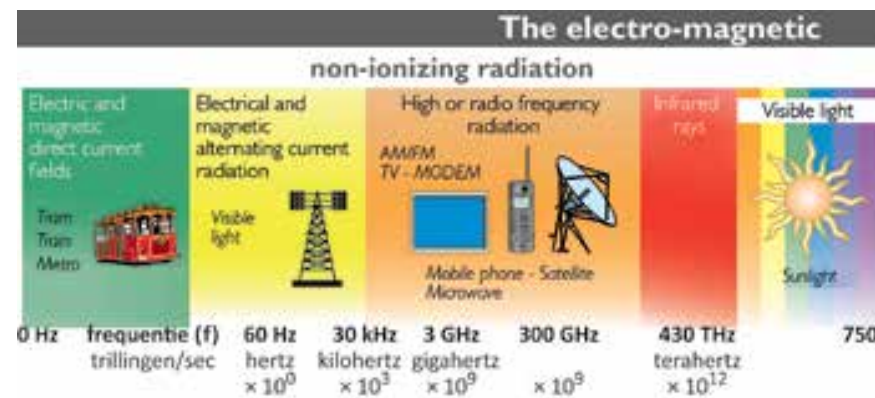
Cosmic radiation would bring cosmic love in 1968, but what is left of it in 2019?
Non-permanent art in Los Angeles. © Dabsmyla on a wall in Hollywood

It is a fact that gigantic economic interests - such as the industries of oil, weapons, tobacco and pharma - lead to the loss of the human environment and human health, and we don't have to discuss this at length again. Nevertheless, the editors want to draw your attention to the following article from the magazine Mantra. It deals with the ever-increasing radio frequencies (now 3G, later 4G and subsequently 5G) to which we are unintentionally exposed and which affect the human cell system. Please read on as to how this is happening.

With the introduction of wireless communication, our lives have undergone profound changes within a year and a half. Everywhere and continually we are now connected worldwide to everything and everyone. We app, stream, twitter and Facebook and without our smartphones we feel almost handicapped. In the nineties we were happy with just a mobile phone with which you could call and text, now the whole internet is at our mobile feet and soon we will not even have to miss it in our self-driving car. Our house is now controlled by the Internet of Things, so that our meal is ready, and the room has a nice temperature as soon as our front door has recognized our face, etc. Easy indeed, but what price do we have to pay for it?

To make all this possible, the capacity for mobile data traffic is constantly expanded at a fast pace. From 2G to 3G, 4G and 4Gplus and very soon even 5G. Very necessary for the emergency services, so that the surgeon in the hospital will be able to carry out an operation

in the ambulance by remote control. It would therefore be criminal if any white zone without a good mobile coverage would remain. That is why we see LTE masts, small cell and urban heating all over the place, because Juncker (chairman of the European Commission) has recently declared optimal mobile range to be the first necessity of life and has made billions available to realize a fully fast-mobile coverage across Europe. At home, we find all those wires difficult and ugly, so we have a Wi-Fi router, and often a cordless Dect phone or baby monitor, so we can use our laptop, tablet, smartphone, smart TV, etc. everywhere in our house without the use of their annoying cables.



Vera Verhagen is a psychologist, astrologist and now a retired teacher in primary education. Before that, she worked at the University of Amsterdam as a social psychological researcher. She now uses these research skills within the astrology field, but also to bring research in the field of RF radiation to the light. A few years ago, she had to lay down a part of her work because of health problems, partly due to radiation from, among other things, the radio mast at the school, which enabled her to become an expert in this field. At the moment she is engaged in political action groups and public awareness of this radiation, as well as working as a counsellor for radiation complaints and she manages the Facebook group "Last van een zendmast - Haarlem" ("Problems with a transmitter mast - Haarlem").

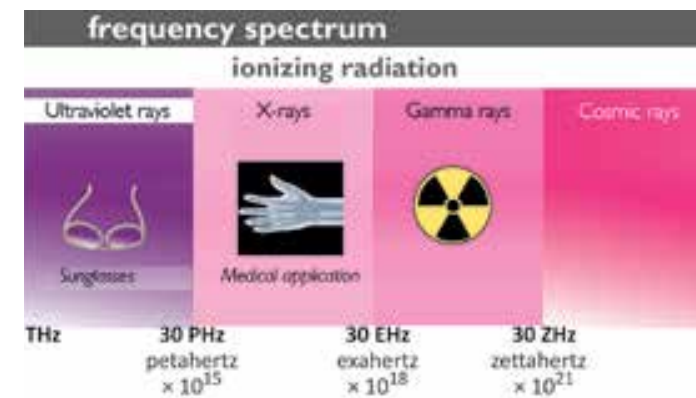
This article has, with permission, been copied from *Mantra* magazine, for which the editors of *Pentagram* express their gratitude. *Mantra* is the magazine for spirituality and new science that replaces the former *Prana* magazine. Like *Pentagram*, *Mantra* is a quarterly magazine. It is edited by Dr. Hein van Dongen, Prof.dr. Hans Gerding, Drs. Karen Hamaker-Zondag and Drs. Rinus van Warven and it is published by Symbolon, Amstelveen, The Netherlands. See: www.tijdschriftmantra.nl or facebook.com/tijdschriftmantra. All editions have a special theme. This article is from the Autumn 2017 issue on Healing Energy. Since then the themes Empathy and Connection, Ego, Breath and Harmony and Chaos have appeared.

But what many do not realize is, that all those wireless applications emit radiation because of which more and more people become sick, often without knowing that this radiation is the cause of their complaints. And the explosive increase in cancer, Alzheimer's disease, ADHD, diabetes, burnout etc. appears to keep pace with the introduction and development of this unbridled growth of 'wireless', so that the average radiation level is now 100,000 x higher than the natural background radiation. It's very clear that we can't just adapt to this without a struggle. Yet despite scientific evidence of the harmfulness, governments work hand-in-glove with the telecom industry, by exposing us to an ever-increasing radiation that we can

hardly escape. Some people become ill in such a way that they feel compelled to flee to an area where radiation-poor spots can still be found, such as the Eifel or the Vosges mountainous areas.

RF radiation* and ICNIRP standards

In order to understand what the radiation of mobile communication does to us and why it is harmful, we first have to check what this radiation actually is. This involves radiation in the high radio-frequency range of the electromagnetic spectrum with a frequency of 300 MHz (300 million hertz (Hz), or 300 million vibrations / sec) to 300 GHz (300 billion Hz; see the middle part of the orange area below). We call this radiation, because the electromag-



* RF-RADIATION
Electromagnetic energy from about 20,000 vibrations/sec (Hz) separates electromagnetic fields from the conductor (antenna) and extends into space as radio waves, in higher ranges as light waves, and even higher as UV and other forms of radiation. Because telephone frequencies are in the range of radio, radar and microwave, in English they are called radiofrequency. In Dutch one speaks of high frequency. However, in order to limit the pulsed radio waves from the higher and lower ranges, Vera Verhagen uses the English term radio-frequency.



netic waves travel at the speed of light (300,000 km /sec) and are not dependent on a medium such as sound waves, which move through (for example) air. Above the radio-frequency area are the visible and the invisible light areas with an even higher frequency. That frequency from the ultraviolet region becomes so high and therefore so strong that the negatively charged electrons are propelled out of their orbit around the positive core of the atom. The neutrally charged atom thereby changes into a positively charged ion. Therefore, this radiation is called ionizing or radioactive and is also carcinogenic for the same reason. This implies tacitly that radio-frequency, the non-ionizing radiation, would be harmless because it does not shoot any ions out of their orbit and thus does not damage tissue. But that non-ionizing radio-frequency radiation does penetrate into matter, including our body, and is absorbed by it; that gives you frictional heat. We use this feature when cooking in the microwave. In it, the food becomes hotter as it becomes more fluid from the radio-frequency radiation of exactly the same frequency as Wi-Fi, namely 2400 MHz. Only because the intensity of our own Wi-Fi is much lower, we hardly heat up.

Because too much of this heat is harmful to the body - for example proteins solidify during a fever over 42 degrees Celsius, the ICNIRP, a special committee of the World Health Organization WHO, has determined that the strength of the electromagnetic field is never allowed to exceed 61V / m (volts per meter). That is the amount of radiation that is needed to heat up a sack of salt water one degree in 6 minutes. The telecom providers must adhere to that and they can do that with great ease. Because according to recent measurements from the Antenna Bureau, despite the explosive growth of transmission towers for 4G, hotspots, small cells and city WIFI, the field strength on the street is at most 3 V / m and in most homes with all kinds of wireless equipment on average 1 V / m.

It is important that the radiation intensity decreases quadratically with the distance to the source [1 / r² at radius = r]. This limit can therefore be exceeded within half a meter of an antenna, and there the public is not allowed to enter. Furthermore, the extent to which the radiation is absorbed, and the tissue heats up, is expressed in the 'specific absorption ratio', or the SAR value. This is especially important for devices that are kept close to the body and especially the

Brand X	Better alternative
	
SAR value	SAR value
0,41 (Head)	0,33 (Head)
0,83 (Body)	0,75 (Body)
	Check Online

Logo of the International Commission for non-ionizing radiation protection

Non-ionizing radio-frequency radiation does penetrate into matter, including our body

head, such as a mobile phone. To prevent damage to tissue and cells caused by heating, ICNIRP has set the maximum SAR value for mobile phones at 2 W / kg (watts per kilogram). Although the SAR value of various mobile phones - provided that they are kept half a cm away from the body - remains within that range, we can read in the hidden small print of the manual instructions, that it varies per brand and model from 0.4 W / kg to 1,6 W/kg. Such are the official information and the standards that the Dutch government adheres to and that we can find on the website of the Antenna Bureau ⁽¹⁾. No reason for concern, or is there?

Not thermal but biological

Although only this thermal effect is officially recognized as evidence of possible health damage, thousands of peer-reviewed studies, as well as countless experience stories, indicate that exposure to radiation from, for example, transmission masts - far below the ICNIRP limit - do still pose health complaints such as: headaches, fatigue, palpitations and other heart rhythm disorders, dizziness, ringing in the ears, skin irritations, vision problems, nerve and muscle pain, nausea and other digestive complaints, loss of concentration and memory, impaired cognitive performance, insomnia, depression, auto-immune diseases, high blood pressure, and eventually also cancer, especially brain tumours. These are often associated with many and long mobile calls according to Hardell ⁽²⁾. Furthermore, behavioural problems (ADHD) and autism have been observed in children. Most of these complaints also appear to disappear like snow in the sun when exposure to the radiation stops. If you experience any such complaints, in this way it is possible to test



UMTS-mast in Amstelveen, The Netherlands - was there suddenly ...
© Hans Hamaker

whether the radiation from nearby cell towers or your own wireless devices is the cause. Because it usually proves that: Radiation away - complaint away!

Of the studies carried out in various countries on these health complaints in the vicinity of radio masts, Van Hutter et al. ⁽³⁾ is the best, because factors that could lead to an alternative explanation

in the design and implementation have been excluded in that test. The researchers surveyed 365 Austrians living near 10 masts in different regions. The field strength in the bedrooms was measured and a series of cognitive tests were conducted. In addition, the transmitter masts were not a subject of protest and the respondents were not told that the investigation had to do with radio masts, but that it concerned the influence of a number of environmental factors, including traffic noise, particulate matter and base stations. The so-called reporting bias (foreknowledge effect), on which comparable investigations such as those of Santini ⁽⁴⁾ and Navarro ⁽⁵⁾ were slated by the telecom lobby, was avoided.

Furthermore, the researchers asked not only about the complaints, but also the opinion of the respondents about the influence of these environmental factors on human health. In this way they could later correct their results for the subjective negative judgment that people might already have about the harmfulness of the radiation from radio masts. Most people (about 60%) turned out to have no worries about that. Despite these precautions and the correction, a significant relationship between radiation exposure on the one hand and

headache / migraine and concentration problems on the other (see fig. 1) was still found. From levels of 100-500 microwatts / m² (a finer-meshed unit of measurement with fewer decimal places, corresponding to 0.1 to 0.4 V / m), the symptoms mentioned appeared to occur relatively more frequently. And that is also the experience of everyone - like the author of this text - who regularly maps the field strength of transmitter masts and wireless devices with a special HF meter: complaints occur at field strengths above 100 microwatts / m².

Plants and animals

It also appears that radiation from transmitting antennae does not leave flora and fauna untouched. For example, a few years ago we were able to read in a small article in De Telegraaf (a Dutch paper) that Danish first year pupils of a secondary school won the finals of "Young Scientists" with an experiment in which they had grown cress in a room with and without Wi-Fi, where all other factors such as light, temperature and humidity were kept the same. The garden cress in the Wi-Fi room was brown and discoloured and barely germinated after 10 days, while in the room without Wi-Fi there was a rampage of cress growth ⁽⁶⁾.

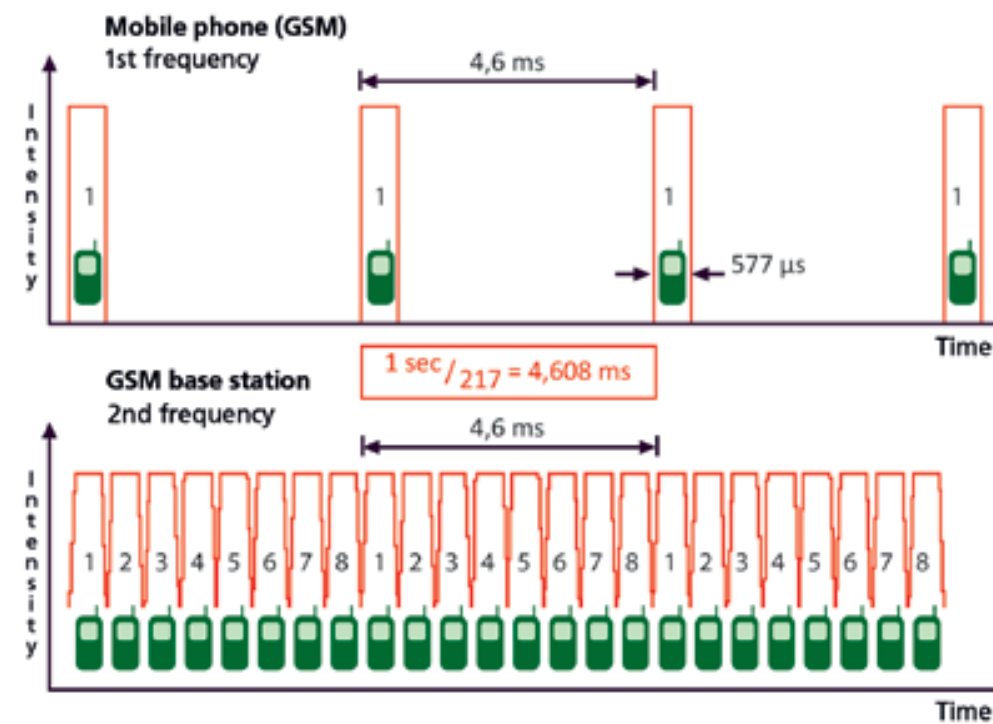


'Pupils raise awareness among researchers: mobile radiation prevents cress germinating'.
Left: cress not irradiated by wifi
Right: garden cress irradiated

Because 70 percent of our trees are now sick, the University of Wageningen, the Netherlands, together with TNO, has set up a trial to determine whether radiation from transmitter masts could be the cause. It showed that maples that had been exposed to radiation for several months showed grey and dead spots and knots, where the presence of fungi or viruses could be excluded ⁽⁷⁾. However, the dead cells on the bark made the tree susceptible to fungi. Personally, on my walks with my dog through the park I see how trees in the beam direction of the transmitting antennae, where I also measure a much higher field strength, look significantly worse: the leaves appear thinner and weaker and several nicely sprouted young twigs were brown and withered at the end of June. On the stems you can see discoloured spots and thickenings with sometimes new shoots and more ivy and chestnut

trees with flaccid and fragile candles that do not turn into chestnuts in autumn.

Furthermore, test animals exposed to radiation from radio masts or Wi-Fi in laboratory experiments are more likely to get cancerous swellings than non-exposed animals. In a series of large-scale laboratory experiments of the American NTP (National Toxicology Program), 2,500 rats were exposed to GSM radiation over a period of 2 years ⁽⁸⁾. Only two exposed cancers were found in the exposed rats: gliomas in the brain and malignant schwannomas in the heart; exactly those cancers from earlier epidemiological research but more of these were found as the animals were exposed to this radiation more intensively. Ironically, for reasons of ethics, not people but animals are used in laboratory experiments to establish a causal rela-



See box page 20

tionship with cancer, but as soon as the outcome of animal research is positive, this is not accepted as evidence by (the Dutch) Health Council, because animals are simply not people.

Disruption of cell communication

So even though the telecom industry and governments do not acknowledge this, radio-frequency radiation far below the ICNIRP limit turns out to have a damaging effect, but strangely enough sometimes also a healing effect. Probably electromagnetic radiation does something very different with biological organisms than only heating them and it is not only this thermal effect, but perhaps also because of the nature of the signals, which in your smartphone, without getting hot, are converted into meaningful information. This is quite possible, because of the communication between our cells and in particular our nerves by means of the same kind of electromagnetic signals with very specific frequencies, which we can visualize with an EEG (electroencephalogram), an ECG (electrocardiogram) and EMG's (electromyograms) that record the frequency-specific electrical signals from the brain, heart and muscles,

respectively. It is not difficult to imagine that the artificial electromagnetic signals from your smartphone with strange frequencies can disturb natural biological signals and disrupt them with a range of neurological symptoms, such as tingling, nerve pains, dizziness, tinnitus and insomnia as a result. This disturbance can also be seen in the EEG of subjects who are exposed to cellular radiation ⁽⁹⁾. There is, moreover, a very distinctive aspect, in that the impact of current digital signals from wireless communication is much greater than that of analogue radio and television for radiation from digital communication is pulsed, which means that it is transmitted in an irregular manner, alternately 'on' and 'off'. By nature, waves of electromagnetic radiation are fluid and sinusoidal. However, digital messages are transmitted in packets that are placed on those radio waves, such as the buckets on the conveyor belt of a dredger, one behind the other. Every time the buckets come up, they are emptied successively, and a lump of mud falls into the boat. Likewise, the digital packets in pulsed waves constantly bombard our cells, while analogue waves calmly go through you. The special thing is that

PULSED RADIATION. (see image page 19)

Each cell phone constantly searches for signals from available base stations and makes a choice based on signal strength and provider. The cell phone searches contact for itself and logs in with the data on your SIM card. Then you will be included in the Visitor Location register of your current location. Calls can then be diverted to the guest network. Up to 8 users can use one channel; they are all eight assigned to a time lock (= gate) (see adjacent diagram). During a conversation, the carrier wave is continually interrupted for a short time, namely 217 times per second (217 Hz), which means that it is broken up in pulses of 1000: $217 = 4.6$ ms (millisec.). In those 4.6 ms, call or data fragments of the 8 participants are transmitted in pulses of over 0.5 ms (577 ms). This is called 'pulsed radiation'. This technique makes it possible to have multiple conversations simultaneously on one frequency band. A lot of research indicates that pulsed radiation (UMTS, WiFi, DECT) is much more harmful than unpulsed (analog FM, TV channels). Most digital forms of radiation have been pulsed! The short pulses are "experienced by our bodies as machine guns".

the electromagnetic signals in our own body are also transmitted in this way. That is why we can also use this pulsed radiation, provided it has the right frequency and intensity, to strengthen our body's own signals and thus, for example, be able to sleep better or be alert and attentive. An example of such an application is Alpha Stim ⁽¹⁰⁾. This is a small box with a battery and electrodes, which are connected to the ear. It emits extremely weak pulsed electromagnetic signals that activate brain areas involved in anxiety, depression and sleep. However, the frequency of radiation from wireless communication is not adapted to our body signals, but to the most efficient operation of our wireless devices. It is therefore obvious that our body and all other biological organisms will experience this artificial radiation as a jammer.

The working mechanism

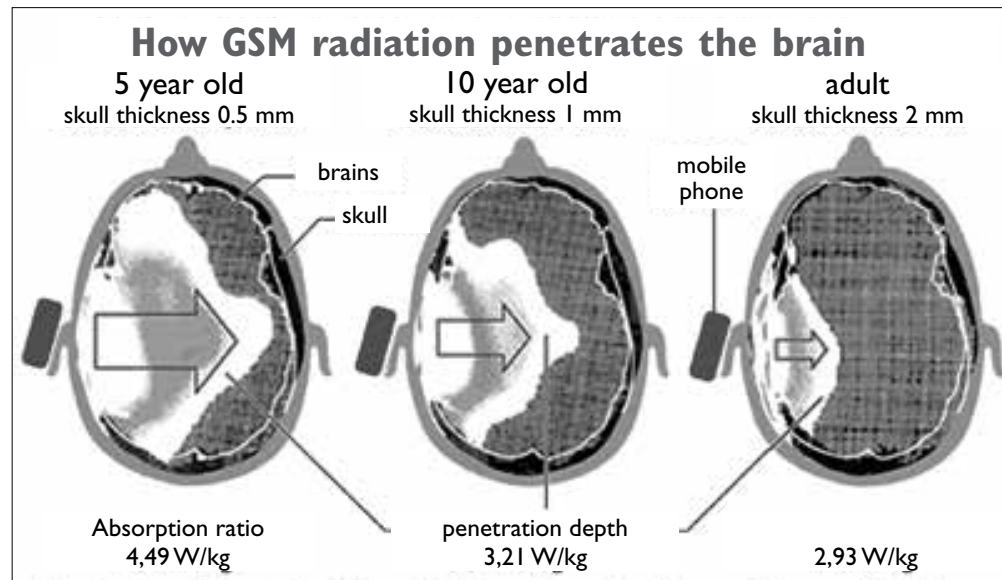
How RF radiation interferes with cell communication, resulting in a wide range of symptoms, has not yet been fully elucidated. But a number of examined mechanisms can explain how this radiation can affect biological processes. In the first place we may wonder why some people experience so many complaints of radio-frequency radiation and others do not. This may have to do with the absorption capacity, and to what extent the energy of the RF waves is actually absorbed by the tissue and is therefore effective.

The absorbency is determined by the size and dimensions of the various body parts through which they pass. As the size increases, less radiation is absorbed. And if that dimension is equal to the length of the wave, or a fraction thereof, that wave is retained, i.e., acting like

a drop of water which always comes to the same spot on the head and thus becomes an effective torture tool. Now the dimensions of the skull differ per person, so that one person absorbs a lot more radiation there and elsewhere in the body than another. As a result, the complaints can also vary considerably. Moreover, the smaller skull of children also often appears to correspond to the wavelength of GSM (900 and 1800 Hz), making them much more sensitive than adults. Especially because the skull is much thinner, so the radiation is absorbed more in the brain. That is why even ICNIRP recommends that children be exposed to this radiation as little as possible.

In addition, there are many magnetite crystals ⁽¹¹⁾ in the nerve tissue, with which we can observe changing magnetic fields of the earth. Birds and fish navigate with it. Tissue with magnetite crystals (iron is attracted by a magnet) absorbs much more radiation than other tissue. Radiation also temporarily releases the protective layer around the magnetite crystal, due to the coherent vibration of the frequency, causing the iron to leak and then oxidize, thus forming free radicals, resulting in an inflammatory response. This explains why especially nerve tissue, which is mainly in the head, causes symptoms such as head and other nerve pain, sleep disturbances, dizziness, tinnitus, tingling and cardiac arrhythmias.

Sleep disorders can also be associated with a strong reduction in melatonin production (a hormone needed to fall asleep) in response to light. Because RF radiation, just like light, consists of high-frequency electromagnetic energy and also has the same velocity, our



Source: Institute of Electrical and Electronic Engineer's Journal on Microwave Theory and Techniques

pineal gland interprets this radiation as light, and consequently ceases to produce melatonin. Laboratory research, for example, shows that people who use mobile phones longer than 25 minutes a day, produce less melatonin ⁽¹²⁾. This also applies to skin irritations. Mast cells under the skin and in the mucous membrane of the nose, under the influence of RF radiation, as with ultraviolet light from the sun, produce much more histamine and this gives an inflammatory reaction causing the skin to turn red. That is why some people also get cold symptoms.

Furthermore, the body knows many processes that use charged molecules and ions. Many of the effects can be explained as a result of an increased permeability of the cell membrane, which normally opens to allow nutrients and signal substances to pass inwards and to dispose of waste materials. In the connection gap between two nerve endings, the synapse, a nerve impulse is transmitted electrochemically. In it, neuro-

transmitters, calcium ions and calcium ion channels play an important role in the cell membrane. Martin Pall ⁽¹²⁾ has demonstrated through laboratory tests that radio-frequency radiation opens the calcium ion channels in the cell membrane, so that positively charged calcium ions enter the cell, releasing neurotransmitters and neuroendocrine hormones, but also nitrogen oxide, which forms free radicals.

Excessive activation of these calcium channels therefore causes hormonal disorders, oxidative stress and thus DNA damage, which is ultimately responsible for the development of cancer. Research by WHO and NATO consultant Seyhan ⁽¹³⁾ shows, that radio-frequency radiation can break down DNA strings, and that 15 minutes of mobile phone calls already cause an increase of broken DNA strings in the hair root cells around the ear, which after 4 hours of exposure, prove even less able to recover. Because the cells of nerve tissue have an extremely high calcium ion channel, this

probably makes them more vulnerable to RF radiation. Hence perhaps the palpitations and perhaps the schwannomen (mostly benign tumors) from the NPT research, because in the heart muscle, and especially the pacemaker cells, its density is particularly high.

Our body also consists of organ systems that work with different substances. For example, the brain works with substances that are toxic to the rest of the body and vice versa. Therefore, there is an electrochemical barrier between blood and brain that works approximately like the gates at a train station. They only open with a loaded public transport chip card, so that undesirable people, like fare-dodgers, are barred. But also, RF radiation appears to be able to open the gates in, for example, the blood-brain barrier, so that substances that are toxic to the brain such as the metals aluminium, copper, mercury and manganese, as well as proteins such as albumin, can now enter the brain. It is known that accumulation of these poisons can lead to neurodegenerative diseases such as MS, but also Alzheimer's disease.

The Belgian doctor Dr Jean Pilette ⁽¹⁴⁾ in 2007 referred in "Zendmasten, draadloze technologieën en gezondheid" ("Radio towers, wireless technologies and health"; free download) to dozens of studies that clearly show that RF radiation increases the permeability of the blood-brain barrier. Also the feeling of 'cotton wool' in your head, not being able to think and formulate clearly anymore, concentration and memory problems have to do with this. In 2015, neurosurgeon Leif Salford ⁽¹⁵⁾ published a number of online studies that not only show that exposure of rats to the radiation of a cell phone causes leakage

of the blood-brain barrier, but also that this leakage leads to poorer cognitive performance: the rats were less able to learn and recognize the way in the maze. So much for some information that explains the effect of RF radiation on biological systems.

Billions industry with lobby

But how is it that the obvious harmfulness of radiation from mobile communication has been known for years and yet only a few people know about this danger we are exposed to, day in and day out? And that their relationship with the sometimes disabling complaints is firmly denied by physicians and official authorities?

This is possible because, just as with asbestos, tobacco, diesel, glyphosate, bisphenol A, etc., this concerns a billion-dollar industry, which, through a powerful lobby, sees the opportunity to keep governments and science caught in a tightening stranglehold with an inextricable conflict of interest as a result.

Double-blind and connecting research

For example, in 2000 the Dutch government sold the frequencies for UMTS, the current G3 for mobile internet, for 6 billion Euros. But the actual rollout caused trouble, since the radio towers for GSM (2G) were already the subject of much protest because local residents indicated that they became ill and the research that confirmed this began to accumulate.

That is why the former minister of health gave the assignment to TNO - before UMTS received the green light - for an independent double-blind placebo-controlled study, which is now known as the COFAM1 study ⁽¹⁶⁾. That was a provocation study in which test subjects in a Faraday cage - in order

to exclude potentially disturbing environmental radiation - had to perform simple cognitive tasks on a computer in several sessions. Behind them were a GSM and a UMTS mast, of which neither they nor the test leader knew in which session it was on or off. After each session, the subjects had to indicate on a questionnaire how they felt.

Quite unexpectedly and to the consternation of the telecom providers, the subjects proved to perform significantly better, especially under the influence of UMTS - but they felt worse. Thus, a causal effect of UMTS radiation was demonstrated! However, this was unacceptable for the stakeholders, so the survey was repeated under the name COFAM2 ⁽¹⁷⁾, co-financed by the telecom industry itself - without these significant effects. In reality, in a number of essential respects this was not a replication of the COFAM1 study at all. Methodologically, everything has been done in COFAM2 to prevent any threatening significance. I myself have summarized the summary tables from this report - the clients refuse to release the original data - and I was surprised to see that there truly were significant effects, but that those had been polished away with a number of statistical filters.

Anyway, even before the official report was published, on the eight-o'clock news we could see that UMTS radiation was safe, and the roll-out could start. The Netherlands now has 43,894 transmission masts, the field strength of which is constantly being increased and to which incessantly higher frequencies are being added. For those higher frequencies, the government has again received € 3.4 billion. In order to avoid further delay and thus loss of profit, the

government had to guarantee, on pain of repayment of those billions and an equally large fine, that nothing would be put in the way of the telecom companies in their roll-out, certainly not any whining citizens.

To that end, the national government put the municipal politics and influence out of the game. Citizens had so much influence that they managed to stop the arrival of radio masts in 50 municipalities. Municipalities were now more or less obliged to issue permits for cell towers in public areas.

And because not all research, especially the telecom-funded, could prove the harmfulness, the Health Council declared high-frequency radiation for mobile data traffic safe, provided that the limits are not exceeded. However, it is stated on the website of the Antenna bureau that, in the long-term view, the effects are not yet clear, further research is necessary. But now that the rollout is

Dr. Cindy Russell:
Overview of future hazards



a fact, it does not seem to be that easy. Recently, the first results of a series of studies into the health effects of high frequency (but also low frequency!) electromagnetic fields have been brought out by ZonMw (Care Research Medical Sciences), which has not shown that RF radiation poses a health risk.

The design of the studies

Partly this is because there are no actual measurements made in the respondents' homes and only the devices that people have at home and the distance to cell towers based on area codes have been looked at. Yet Anke Huss ⁽¹⁸⁾ found that young children who used their mobile phone more than twice a week slept worse, but that was attributed to the blue light and not the radiation. And on the question of the consequences of exposure in the longer term, these studies do not yet provide an answer. So for now, time can be bought with a major epidemiological investigation running up to 2019. Here, the exposure of different groups is determined on the basis of the postal codes and compared with an existing health index. However, since most of the radiation in the home nowadays comes from the wireless devices that are radiated in almost all homes 24/7, little usefulness can be

expected. No differences will be found because nowadays everyone is exposed to a considerable amount of radiation.

That's how it worked out with asbestos also, which by a successful industrial lobby, was only banned 75 years after scientists started to prove it caused lung cancer, and then only in Western countries. In the BRICS countries it is still being used and even promoted. Furthermore, the results of the previously quoted NTP studies hardly received any attention and, except for a revealing broadcast in Zemblia in 2009 ⁽¹⁹⁾, the Dutch media were silenced. And those who may experience radiation complaints can register with the GGD, which, like all other agencies, has the official position of the Health Council and refers one to a specially established department of the SOLK (SOMATICALLY UNEXPLAINED PHYSICAL COMPLAINTS) clinic. There, the radiation victim is taught by cognitive behaviour therapy that the complaints are not caused by the towers but all is 'between the ears'. Under the motto: the complaints are recognized but not their cause. Etc. etc. How these conflicts of interest of industry, politics and science in terms of high-frequency radiation are precisely put together, with great environmental and health

5G - INTERNATIONAL APPEAL

On the 23th of June 2017, 225 radiation experts from 41 EMFscientist.org countries called on the Federal Communications Commission (FCC) to suspend a small cell policy for mobile 5G networks due to health damage. The FCC wants a 'change of rules' in order to 'speed up' the setting up of a network of such small cells (small transmit antennas) for 5G. The radiation experts state: "5G broadcasts on millimetre waves of much higher frequency than are used in current mobile traffic (30 to 300 GHz). Because its range is limited, hundreds of thousands of new small cell antennas would be needed in the United States.... The intention of the FCC to steamroller the approval of these antennas would further undermine the administrative authority of cities and states with regard to radio masts. Meanwhile, in many states industry is already lobbying in favour of legislation that would limit the powers of the local authority."

damage as a result, is mentioned by name in the recently published book *Corporate ties that bind* ⁽²⁰⁾.

International initiatives.

The Netherlands, which has focused on a pioneering role in wireless technology, didn't make this public. But the WHO has already declared radiation as possibly carcinogenic in 2011 and the Council of Europe, in resolution 1815, recommends the precautionary principle, ALARA, or keep the radiation as low as possible! In fact, similar legislation did not come about because the proposal fell through in the European Commission; this small majority, which consists of members with demonstrable ties to the telecom industry, voted against it. In addition, another 210 scientists from around the world have recently called on the WHO to lower the radiation limit.

Steps have already been taken in that direction in various countries. For example, Austria lowered the limit value by a factor of 10,000 after a warning of 1000 doctors ⁽²¹⁾. France has banned WiFi from kindergartens. Germany and Belgium warn their citizens about the dangers. And Sweden finances the expensive foreclosure for residents who get sick because of it. But the Netherlands still uses the highest radiation limit in the world. Also, the biologically acceptable limit value of 1 microwatt / m² from the Bio-initiativ report, a report published by 27 scientists on the biological effects of RF radiation ⁽²²⁾, is indeed far exceeded in this respect. Sometimes up to 40,000 microwatts / m².

What can you do?

Nevertheless, most people seem to have no trouble with it so far. Only an

estimated 3-5% experience complaints such as muscle and nerve pains and tingling, sleep disturbances, cardiac arrhythmias, heat attacks, eye irritations, etc. An even smaller percentage says that RF radiation can be felt. But the experience shows, as well as the COFAM1 study, that those who do not seem to be bothered, but still want to listen to the subtle signals of the body, often observe a kind of pressure on the chest, throat and/or head in the vicinity of a radiation source, as if you were being pushed back by something. And a radiation-poor spot with less radiation is often experienced as calmer and more relaxed, where you can breathe more freely. Nor does 'no burden' say anything about its harmfulness, because the opening of the calcium ion channels and the blood-brain barrier is not limited to the radiation-sensitive people but causes oxidative stress in all biological organisms. Our immune system may compensate for this by the intake of antioxidants for a long time, but DNA damage and therefore cancer is lurking for everyone.

Anyone who wants to, can limit these risks by firstly and more consciously dealing with their own wireless devices. Like you can turn off the Wi-Fi on the router when it is not being used, especially at night. Except for XS4all, most providers make this increasingly difficult by replacing the button on the router with a software-based setting on their website. But if you connect your PC and laptop with an ethernet cable, you can leave the Wi-Fi off. You should not forget to put your laptop on airplane mode, because otherwise it will still continue to seek connection and thus emit radiation. Possibly you can purchase an eco-router, which only emits radiation when it is actually in



use. Your smartphone can also go off or on airplane mode if you do not actually use it. And if you make a phone call with it, just use the speaker or an earpiece, but at least always keep it half a centimetre away from your body, otherwise the manufacturer's SAR value may even exceed the safe limit, according to the manufacturer's instructions. If you still have to keep it on standby, do not wear it on the body. Incidentally, you can connect both smartphone and tablet with a specially designed adapter to the cable network, so you can still WhatsApp at home radiation free. Well, with a new smart TV and ditto sound system, surveillance cameras and smart thermostat, with smoke detectors that work on WiFi 24/7, that will be a bit more difficult, but you can (still) choose not

to admit it into your house. Just like the smart meter, which regularly emits RF radiation to maintain contact with the energy supplier. Refusing is allowed! And there are plenty of other reasons for that, such as excessive registration of your energy consumption, hacking and privacy violation.

With most landline phones, the handset is still wireless and basically it gives 24/7 RF radiation comparable to a radio mast. The most sensible thing is to use a normal cord-phone again. If walking is a problem, then there is an eco-Dect version of Siemens, which only gives radiation when you call – though even more than your smartphone emits – while in the study of Hardell, the association with brain tumors was even

stronger. So here too the advice applies: speaker or earpiece. Most baby monitors work exactly like a cordless phone. So you may wonder if your baby, who is much more sensitive to this, would benefit from such a radiation-emitting camera just above his head. Sometimes, when the baby monitor is removed, the babies appear to become much quieter, cry less and also sleep better. To turn this equipment off is also sensible from the point of view of energy saving. The total energy consumption for mobile communication is higher than that of all road traffic and as microwave radiation it can also lead to global warming ⁽²⁴⁾.

With the removal of these radiation sources you can usually significantly lower the field strength, especially in the house. But lately the new Wi-Fi routers, especially those from Ziggo, are so strong that they produce a lot of radiation even for your neighbours. Sometimes the modest router in the meter cupboard of those neighbours is nothing compared to this one. And because that Ziggo router is built into the so-called Horizon box, it has to be close to the TV and you are unlucky if it hangs on the partition wall with your room. Also, a panel of a transmitter mast can be aimed in the direction of your home and give too much radiation even at 200 meters distance. In that case it can be necessary sometimes to block a biologically acceptable field strength of less than 10 microwatt / m² by shielding certain walls and ceilings. To this end, all sorts of materials are commercially available such as carbon paint, or especially very fine wiremesh. There is also textile for example curtains, a mosquito net, and even clothing in which is woven a small silver thread.

This means that 99% of the RF radiation

can be dampened. All these materials are quite pricey though, so shielding a wall could cost you around € 500. But with aluminium foil and fire blankets you can also solve this, that is, if you value the aesthetics less. To see if your shielding is effective, it is necessary to measure the field strength before and after. You can buy or rent a special RF meter for this. But there are also measurement specialists and residential biologists who have made this their profession, they come to measure your house for about € 400. A meter costs only half! And after a week of experimenting with it you can master working with it. In a single case, with an extremely high field strength, for example at a distance of 50 meters from a transmitter mast that is aimed at the front of your house, 99% attenuation is still insufficient. Then if you still want to live in a low-radiation environment, you will have to move and hope that there will not be a new radio tower close by or built in the near future. Furthermore, there are all kinds of expensive gadgets on the market that are claimed to transform or harmonize the disturbing radiation. Often in the form of a pyramid, stick or disc filled with ...? That usually remains a mystery. As well as the meaning of the pseudoscientific terms in the manual that explains its operation. While some people may benefit, all these gadgets, which actually do not give a measurable change in field strength, seem to serve the seller's purse rather than solving problems with RF radiation. All in all, we can still reasonably limit our exposure to harmful RF radiation. Especially at home, because outside, in shops, in hotels and restaurants, in public places and in public transport there are towers and WiFi zones everywhere that we can hardly avoid. And we

References

1. www.antennebureau.nl
2. "Mobile phones, cordless phones and the risk for brain tumors", Hardell L, Carlberg M, *International Journal of Oncology*, 2009.
3. "Subjective symptoms, sleeping problems, and cognitive performance in subjects living near mobile phone base stations", H. Hutter et al., *Occupational and Environmental Medicine*, 2005.
4. Survey study of people living in the vicinity of cellular base stations, Roger Santini et al., *Electromagnetic Biology and Medicine*, 2003.
5. "The microwave syndrome: a preliminary study in Spain", EA Navarro et al., *Electromagnetic Biology and Medicine*, 2003.
6. <http://www.lexnaturalis.nl/deense-brugklas-leerlingen-verbazen-wetenschappers-met-hun-wifi-experiment/>
7. WUR Report effect EM fields on trees: <http://edepot.wur.nl/309835>
8. Report of Partial findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley SD rats (Whole Body Exposure), Michael Wyde et al. 2016. <http://biorxiv.org/content/early/2016/05/26/055699>
9. "Human brain wave activity during exposure to radiofrequency field emissions from mobile phones", D'Costa H., Trueman G., Tang L., Abdel-rahman U., Abdel-rahman W., Ong K., Cosic I., *Australasian Physical and Engineering Science in Medicine*. 2003.
10. <https://www.alpha-stim.nl>
11. "Information storing by biomagnetics", Istvan Bókkoncorresponding, *Published online Sep 2, 2009. doi: 10.1007/s1086700991739*
12. Burch J.B., et al. "Melatonin metabolite excretion among cellular telephone users", *International Journal of Radiation Biology*, 2002.

cannot keep our children home because WiFi is a must at school nowadays. That is why I want to conclude by expressing the hope that awareness will lead to the government and the industry looking for less harmful technology. The recently developed but still too expensive Li-Fi, which transmits digital signals with much higher speed via LED lighting, could already mean a major improvement indoors. But also a smarter placement of transmitter masts, outside residential areas and with a safer adjustment, with which the mayor of Krakow has recently started. Whether or not 5G and self-driving cars and smart houses fall within the possibilities, remains to be seen, but we may wonder if we really want to, before we are addicted to it just like our smartphone.

Finally, for anyone who wants to know more about radiation from mobile communication and contribute to the awareness of the dangers, the following websites are recommended: www.sosstraling.nl (with complaints checker), www.stopumts.nl (with research, experiences, news and legal information), www.verminderstraling.nl and www.verminder-electrosmog.nl (both with a lot of practical information and a petition), or www.stichtingehs.nl (for electro senses). Furthermore we can endorse the recently quoted plea from California scientists for wired internet instead of a small cell for each house. That started with: "At the beginning of every disaster film a scientist is ignored and ended with: "The federal guidelines for high-frequency radiation do not protect against health risks. Please do not ignore the scientists. Do not call for a disaster for public health. " ☘

From the editors

The author gives advice on how to limit the damage, but as these provisions do not succeed in stopping global warming, saving the jungles or putting an end to all wars, we will be overtaken by even higher radiation strengths with even more cell damage (5G). Is disparagement unavoidable, or do we still have confidence in human creativity? Let us not forget that man is more than his body, that great possibilities of development are hidden within man which can grow into a new consciousness. Man is equipped with a latent radiation sensitivity in heart and head - a radiation of a completely different order, a divine radiation force that seeks contact with man from a higher dimension. This requires a radically different attitude, an alignment of heart and mind, a purification and sanctification in complete devotion. If that radiation power can make contact with our heart, and via our blood can also enlighten our head, pure intuition awakens, our understanding is clarified and we actually see the world as it is.

A problem can never be resolved at the level at which it was caused, Einstein said. The impact of a dimension higher for this is needed, a whole new angle. To this end, humanity will have to lift itself up to that dimension, especially if the human body will no longer have any right to exist because of the extensive damage it has sustained. From there a life for the soul opens up, of which we cannot yet imagine. Until that time we know what to do.

13. "Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects", Pall M, *Journal of Cellular and Molecular Medicine*, 2013.
14. "Single-strand DNA breaks in human hair root cells exposed to mobile phone radiation". Seyhan N. et al., *International Journal of Radiation Biology*, 2012.
15. <http://www.next-up.org/pdf/DrJean-Pilet-teDraadlozeTechnologieenEnGezondheid112007.pdf>
16. <https://betweenrockandhardplace.wordpress.com/2015/05/18/cell-phones-and-blood-brain-barrier-chinese-scientists-confirm-findings-of-swedish-salford-group/>
17. "Effects of global communication system radiofrequency fields on well being and cognitive functions of human subjects with and without subjective complaints", Zwamborn et al., *TNO Physics and Electronics Laboratory, FEL-03-C148*.
18. "UMTS base station-like exposure, wellbeing and cognitive performance", SJ Regel et al., *Environ Health Perspect*, 2006 114(8):1270-1275.
19. "Environmental Radiofrequency Electromagnetic Fields Exposure at Home, Mobile and Cordless Phone Use and Sleep Problems in 7- Year-Old Children." Huss, A. et al, et al *PLoS One*, 2015.
20. Zembla broadcast 9 april 2009. www.youtube.com/watch?v=a9Bo8MkaKHo
21. "Corporate Ties That Bind: An Examination of Corporate Manipulation and Vested Interest in Public Health", Martin J. Walker (editor), *Skyhorse Publishing*, 2017.
22. Freiburg appeal en International Doctors' Appeal 2012 <http://www.elektrosmognews.de/news/Int%20Appell-engl-20121005.pdf>
23. Bioinitiativ 2012 A Rationale for Biologicallybased Exposure Standards for Low intensity Electromagnetic Radiation. www.bioinitiative.org
24. Film series by Barry Trower, microwave expert defense, <https://www.youtube.com/watch?v=gQANISdod4s>
** <https://drive.google.com/file/d/oB14R6QNkmaXuMINZMnRjeEhFRV/view>



5th dimension. An image from the Twilight Zone Monster Mini Golf game that lights up in the dark. Las Vegas, USA

Matter, time and space

Whoever drops a big stone on his foot, will feel the hurt. He or she will not immediately think of the kinetic energy that passes from the stone to the foot. Yet all this has to do with the field of existence in which we are: the field of space, time and matter. It's time for a phenomenological investigation.

I

In this article we approach the meaning of matter, time and space by asking questions, for which we can find answers by looking sharply at our world as we as humans experience it. That is what phenomenological research entails. Because our own experience of the phenomena around us is predominant, this is basically a subjective investigation.

In our world everything is unquestionably related to matter. Biological life, human beings, the animals, the plants, all consist of matter and life in and through matter. Being earthly therefore means being material and we have to behave accordingly. In other words: our way of experience is completely embedded in matter and all phenomena that we perceive or develop find their basis, their starting point, in matter.

An important difference between a human being and an animal is that a human being tries to understand his material environment not just because of the fear of survival as the only motive. In an animal, that survival drive is usually much more dominant. The latter means that, for example, an animal has only a very rudimentary use for time, namely in

the reflexive assessment of what to do in a situation that is threatening to the animal: flight or fight.

A human wants a lot more than that. In his search for the meaning of life he is focused on understanding his environment, for example in terms of cause and effect. Although - like the animals - one with the nature of this world, he is a biological being who with his senses perceives his surroundings within that dialectical nature, curious to investigate this environment and trying to give it meaning. In his genesis he developed a crucial skill, namely speech (and script), which he used to exchange his findings with other humans.

Our understanding of time plays a crucial role in our search within the material world. Past, present and future are all indications of time which, in addition to all sorts of other motives, incite us to our search. The three-dimensional space of our life domain, our natural order, also drives us toward this. Matter, time and space - besides other essentials - are three most important key concepts that incite us to a quest for the meaning of everything. A search, we now know, which will eventually lead us back to ourselves through our environment. Let us therefore try to find out the nature, the quality and the deeper meaning of these key concepts. What caused people to develop these concepts?

So, for our research we choose the perspective of the self-aware person, the person who is conscious of, or becomes aware of what he perceives in his immediate environment. A subject-oriented starting point that is as pure as possible. It was in the mind of this human being that the concept of time and space developed, which arose after he became aware of himself and of the people around him. After all, nothing in nature

prescribes a biological being where-in – besides the painful experience of hurting one's toes against a rock – there is also such a thing as the inescapability of time and space. Because of the concrete experience with the rock, he experiences that this piece of matter was hard, sharp and unyielding, an experience that would then encourage him and others to take greater caution in the future. But space and time? Ultimately, these are abstract constructs, developed by man within himself to be able to interpret his immediate surroundings. That is why the question arises: on the basis of which experiences did this development take place?

Time

We will first try to discover the meaning and the necessity of the concept of time for mankind. Is there a need for the existence of time? Our suspicion is confirmed. Time is actually a supportive dimension, inseparably bound to our material world. The movement of an object in space, in our immediate environment, impels the human spirit - which after all is focused on itself - to the creation of time, as an aid dimension. And this same dimension is indispensable for a person who wants to give meaning to his environment. How did we come to this conclusion?

To the observer living consciously in the moment this means, in addition to the possible awareness of all kinds of emotional impressions, the conscious awareness of our immediate surroundings in the moment itself. If in this environment a thing moves slightly in relation to us, that is to say, if it takes a different place in our three-dimensional environmental space for us compared to our first sensory perception, then for what we experience no other conclusion is possible

Time is actually a supportive dimension, inseparably bound to our material world

than that we experience that it has taken up a new place in another moment. By seeing matter moving or our own movement as an observer (also matter), momentary differences for the observer are inevitable. For those time differences, it is not important which matter is concerned or which movement matter makes.

We can therefore see the difference between these two different moments of awareness as an independent, absolute entity. We call this difference a time interval.

The word absolute indicates that a sensed time interval as a result of moving matter always has a positive value, irrespective of how we express that value numerically - for example, the positive sound of three raindrops that descend on a hollow piece of wood, which are never the same as three (negative) raindrops that ascend.

Because of the continuous concatenation of time intervals, time and time awareness arise in our consciousness (as also day and night rhythms and seasons come eventually - as we now know - from moving matter). Thus, we need the time concept, necessarily created by ourselves, as an aid to unambiguously give meaning to the movement of matter in our environment. Without this concept of time, our curious and consciously inquiring mind would be in great confusion.

People who have been inside a dead room in a laboratory set-up, wherein all kinds of provisions are made to keep out all light and sound, report afterwards that it seemed to them that "time stood still".

Incidentally, it turns out that a human being can only suffer about three quarters of an hour in such a laboratory room. And even in those extreme cir-

cumstances, the beating of our heart and the whizzing of the blood in our ears ultimately still help us to hold on to a sense of time.

Yet that statement is a powerful indication for the thesis that time is essentially a subjective experience. Who is not familiar with the experience that a person's perception of time is subject to change during the course of his or her life? For a child, a year seems to last for an eternity, while for someone of middle age the time of a year flies by.

In his urge to objectify the laws of nature within natural sciences and to make them measurable thereby, man has standardized time with the second as the basic unit, as recorded in the *Système International des Unités* (SI).

The standard size of the duration of a second is defined in the SI system as the duration of exactly 9,192,631,770 periods (one period is exactly the duration of one full vibration) of the radiation that corresponds to the transition between the two hyperfine-energy levels of the ground state of a ¹³³Cs atom (of the chemical element Cesium) at rest and at a temperature of 0 degrees K, which is equal to -273 degrees C, the absolute zero point for temperature. (source: Wikipedia)

With this basic unit of time all time-dependent processes in nature are scientifically measured, described and calculated. And in a rough approach (matter in motion!) our clocks and watches keep pace with this basic unit. And thus, the formal time is decoupled from our subjective experience of time, with which *the essence of time disappeared from view*.

But even then in theory the pace of time turns out not to be constant. If scientists theoretically investigate the movement of matter at relativistic velocities, that is to say at speeds close to the speed of



Drop-time

light (from about forty percent of the speed of light), the pace of time is not constant on the basis of the *General theory of relativity*.

Incidentally, the same theoretical physicists postulate that time finds its beginning with the so-called big Bang, the moment when out of nowhere came a flash of so much energy, that eventually the material universe known to us could emerge. In other words, they postulate: when matter came into existence, so did time.

However, it is man, it is me, who has the experience of time, in fact, who needs this experience. Without this supportive dimension, conscious perception of the world around us would lead to unfathomable confusion. Only with the help of the concept of time does the moving material world around us become meaningful for us.

The preceding reasoning also logically explains the orientation of time in our dialectical world. The arrow of experienced time always points in the direction of a future not yet known by us, never in the direction of the past that is engraved in our system. The time we experience can only increase, never decrease. The difference between two perceived here-and-now states, always results in a positive time interval and never in a negative. In this Nature we humans only grow older, we never suddenly become younger again.

This is also the reason why we call time a supportive dimension. After all, with regard to the fully-fledged spatial dimensions, it is possible to select a physical position everywhere in space. That does not apply to the timeline. There we have nothing to choose: we are physically present only in the present, even though we often think of and

in the past or we speculate about the future.

Cause and effect

An important phenomenon within our experience of matter, time and space is the so-called causality principle. This is the experience that – considered in time – there is never a consequence before a cause. First a cause and only then the result.

All natural phenomena known to us comply with this causality principle. In natural sciences this principle is also called on to help when testing the consistency of theories and research results with the law of action/reaction. We humans too, are subject to this principle. We must first have done something before we can face the consequences. In Greek mythology Nemesis was introduced as the goddess with the double-edged sword, with the following background idea. With his actions, man serves the delusions or demons created by himself. That can evoke powers that could threaten the universal plan of God. But (Karma-) Nemesis, an impersonal dynamic force, immediately prevents this. It neutralizes these forces by mirroring them back to their perpetrator, the human being, in the opposite sense. This person then experiences this as a setback or as fate. This sequence in the time of cause and effect – we all know this from experience – is strongly determinant for the actions of man in his immediate environment.

Space

Let us now examine what is the essence of our concept of three-dimensional space. The boundary of our physical body and the fact that we are able to move determines our experience in our envi-

ronment, from where first emerges the space in which the movements of our body can take place.

We ourselves and the physical space in which we live are three-dimensional in nature. This is also a term from physics and that is why we will try to examine the essence of the concept *dimension* for ourselves.

Because the question may be asked: why *three-dimensional*?

We will build the dimension concept from the bottom up, that is to say to start with the “zero-” dimension, in which we always examine what a certain dimension means for our perception of a mathematical point in space. Characteristic of this point is, that it itself does not have height, width or depth. When building our understanding of space, we use the homely example of the rectangular living room, our direct environment.

a. The zero dimension

Let us first consider one point in space at a fixed location. A *fixed* (immovable) point. As an example, we take one of the corner points on the floor of our living room, where the height, the width and the length of the room come together. That fixed point, located in the vertex, is called the *zero dimension* because this point of observation is only in that fixed place and cannot exist anywhere else. We therefore say that such a *fixed* point has *zero degrees of freedom*. Of course, this does not apply to this room corner point only, but to all fixed points in the space we choose.

Such a point is located – so to speak – in a *zero-dimensional space*. The *zero-dimensional dimension*, or a *fixed* point in space, is a *zero-dimensional space*.

Because our point of observation is a *fixed* point and has no freedom of move-

ment, the introduction of time in the zero-dimension is not necessary. It is a *fixed* point, independent of past, present or future. On the other hand, the introduction of time is not at odds with the zero dimension: it was a *fixed* point in the past, it is a *fixed* point in the present and it will also be a *fixed* point in the future, otherwise it would not be a *fixed* point.

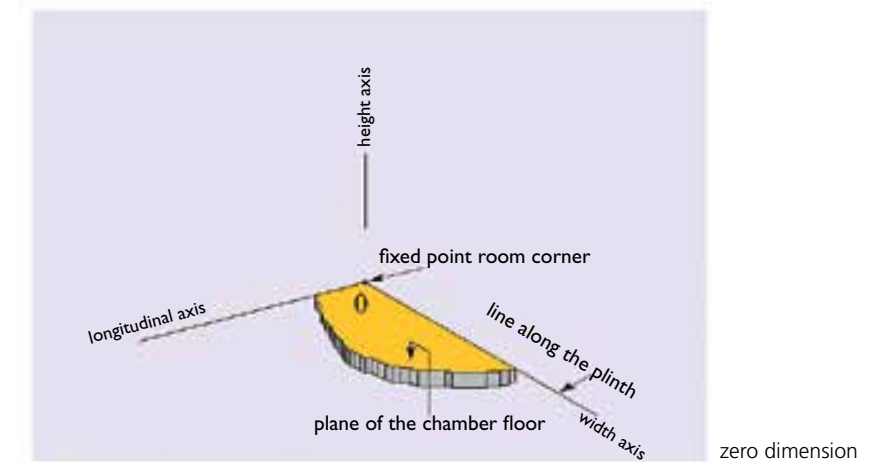
b. The first dimension

In the same room, next to this first fixed point – in our example the corner of the room on the ground – now visualise a second fixed point, for example a second corner of the floor in the room.

Then the shortest connection between these two fixed points is a straight line, in our example it is the line on the ground along the plinth.

If we extend this line straight ‘beyond’ the two fixed (corner) points, then a fixed straight line of unlimited length is created in the space defined by our two fixed (corner) points.

Here comes the core: Any point on this line will only belong to this line if it moves on this line and in no other direction. That point therefore has one



degree of freedom only: to move on this one line. That is its space to manoeuvre. Because a point on that line has got one degree of freedom to move, it is thus in a one-dimensional space. The first dimension, or the straight line, is a one-dimensional space.

What is immediately noticeable is that the freedom of a point in the one-dimensional space also imbibes the non-freedom of the points on this straight line.

It is also still possible to select a fixed (non-moving) point on the straight line. This means that the first dimension also includes the zero dimension.

Here we have chosen the fixed straight line as a simplified example, but a point on a fixed curved line is also in a one-dimensional space according to the same reasoning.

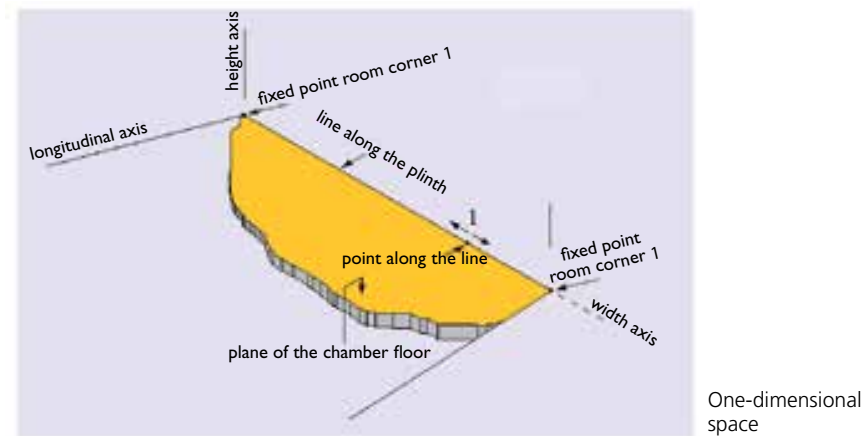
We also note that in the first dimension the introduction of time is necessary in order to give meaning to the movement of our point of observation on the line.

c. The second dimension

Now the second dimension. Take a second fixed straight line that crosses the first fixed straight line at an angle of ninety degrees. In our example it is a line on the floor of the room along the plinth that is perpendicular to the first plinth. Both lines therefore have the corner point in common. We now have two lines that cross each other at right angles.

These two fixed straight lines lie in one fixed flat plane, in our example the floor of the room. In our thoughts, we are extending this flat plane further from 'beyond' the two lines.

If we put a dot on the room floor with a felt tip pen, then the spot of that dot can be measured exactly as the perpendicular distance to the first plinth and



the perpendicular distance to the second plinth.

If we choose another spot for the dot on this flat surface, then the size of these two perpendicular distances also changes. The point then has a new perpendicular distance to the fixed straight line of the first plinth and a new perpendicular distance to the fixed straight line of the second plinth.

A point in this flat plane therefore has two degrees of freedom. A point, lying in a fixed flat plane, is thus in a two-dimensional space. The second dimension, or in other words: a flat surface is a two-dimensional space.

It is noteworthy that the freedom of a point in the two-dimensional space of the plane also incorporates the freedom of both the first dimension and that of the zero dimension. This is because there is always an arbitrary fixed straight (or curved) line to be chosen in this plane, along which the point has only one degree of freedom. We can also choose a random fixed point in this flat plane, so that the point has zero liberties.

And here too we have chosen the fixed flat surface as a simplified example. Because an immobile, flat-curved surface in space also appears to be a two-dimensional space for the same reasons.

Because we had to enter the time with the first dimension, this is also necessary for the second dimension. After all, the second dimension also contains the first dimension.

d. The third dimension

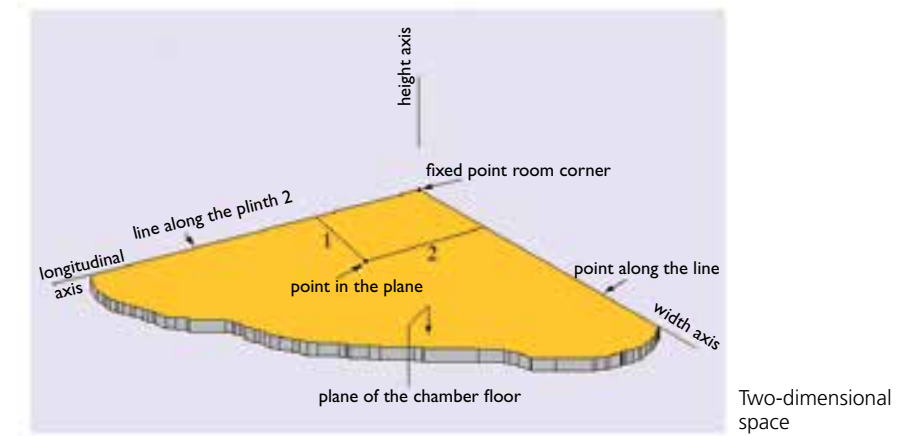
Finally, the third dimension of our physical space. Take the line in the corner of the room that runs from our first corner on the floor to the ceiling. This third fixed line is therefore perpendicular to the floor area of the room, the plane of the two previous straight lines on the floor along the skirting boards.

With this we involve two side walls of the room in our consideration. These two walls are perpendicular to each other and both are perpendicular to the room floor. Thus, three, fixed flat surfaces perpendicular to each other. In our minds we can extend these fixed surfaces indefinitely.

We can now determine the exact location of one arbitrary point in the room space by measuring its perpendicular distance to the plane of one side wall and its perpendicular distance to the plane of the second side wall and its perpendicular distance to the plane of the room floor.

If we choose a different position for this point, the size of these three perpendicular distances also changes. The point then has a new perpendicular distance to the plane of the first wall, a new perpendicular distance to the plane of the second wall and a new perpendicular distance to the plane of the room floor. For a point in space this means three degrees of freedom (three freely selectable distances). An arbitrary point in the physical space is therefore located in a three-dimensional space. The third dimension.

As with the two previous dimensions,

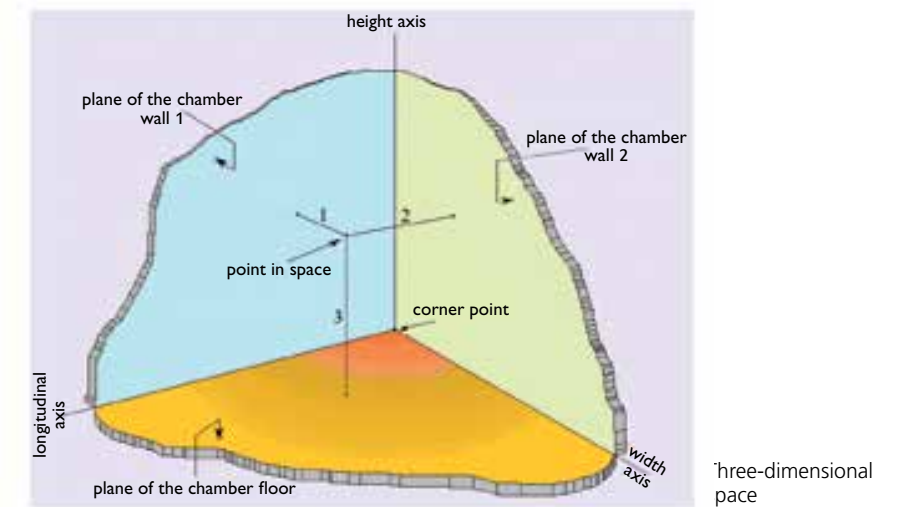


we see again here that the third dimension incorporates both the second dimension and the first dimension as well as the zero dimension.

With this, time is also inevitable in the third dimension to give meaning to the movement in the space of our point of observation.

e. Conclusion

Our physical living space is therefore a three-dimensional space. All material objects within this space are therefore also three-dimensional, which means that they, including we ourselves, occupy a three-dimensional space.





Anselm Kiefer, Glaube, Hoffnung, Liebe (Faith, Hope, Love) 1984-1986. Gallery of New South Wales, Sydney, Australia

In our physically observable world, our dialectical world, there are no higher order dimensions.

In this last statement, however, man as an observer plays a crucial role. It might be better to say that he cannot perceive any higher dimensions with his present senses which are exclusively equipped for the physical world of our natural order. And of course, that does not at all mean that no higher dimensions could

exist. The only fact is that if they exist, we, in our present state, are not able to experience them with our physical body. Finally, the previous consideration of the four dimensions of zero, one, two and three leads us to the fundamental property of the concept of dimension: a point of observation in a next dimension also contains all possibilities for this point in previous (lower) dimensions as well as the necessity of time.

Matter

What then is the essential quality of matter for the Rosicrucian, as we perceive it in our three-dimensional world space?

Let us start close to ourselves. If we lift a brick and then drop it on our foot, it will hurt. This pain is caused by the transfer impulse of kinetic energy at the foot, on which the stone falls. The processing in our foot of this energy boost gives us a pain experience, which according to our recovery capacity will take shorter or longer.

There is apparently something working in matter and energy, but what? Does moving matter create energy? Or is it more complicated?

For this we have to focus on the structure of matter and thus we are forced to abandon our phenomenological approach. Because no one can look through matter to see what its structure is. We therefore fall back on what science teaches us about matter.

Well known physicists such as Rutherford, and especially Niels Bohr (1885 - 1962) postulated that matter is essentially composed of atoms. It has been Bohr's atomic model that has had a major influence on the development of areas such as Chemistry and Quantum Mechanics. In practice, this postulated atom model appears to lead to such surprisingly good and reproducible results that until now there is no better model available. All matter in our world is three-dimensional in its appearance and thus consists of atoms, possibly in connections with other atoms and compounded into molecules.

Thus, most of the matter we know consists of the merging of different molecular complexes into many, very different structures, as is the case with a piece of wood, for example, but also with a steel

plate. However, the atoms still remain its smallest building blocks.

A substance that does not originate from reactions with other substances is called an element. There are gaseous, liquid and solid elements.

According to Bohr, an atom is the smallest part of an element that still has the properties of that element.

Thus, a fragment of a solid element, for example iron or phosphorus, consists solely of identical, neatly arranged atoms.

Zooming in on the atom on the basis of the atomic model of Bohr, creates the image of a nucleus, surrounded by a spherical cloud of electrons spinning around the nucleus. Electrons are the smallest electric charge carriers in nature. The number of electrons in that cloud determines the properties of the element to which the atom belongs. The atom is therefore a three-dimensional object for us, no matter how small its dimensions are.

The nucleus of an atom in itself consists of an assembly of the same number of protons as there are electrons circulating in the cloud. A proton is also the smallest electric charge carrier, with equal or opposite electrical properties to the electron.

Furthermore there are neutrons, numbering in the majority, present in the nucleus of an atom, their number again depending on the element itself. These neutrons are electrically neutral in themselves.

An electron and a proton attract each other with an enormous power because of their mutually opposite electrical value. Electrons and protons mutually repel each other with the same force. Neutrons are free of these forces.

The mass of the atom as a whole is roughly equal to the mass of the nucle-

There is apparently something working in matter and energy, but what? Does moving matter create energy?
.....

us, bearing in mind that protons and neutrons have about the same mass and electrons virtually have no mass. The atom therefore exists by the grace of an extremely subtle balance of different, relatively large forces.

To get an idea of the spatial structure of an atom, we look at the simplest atom that we know, namely the atom of the gaseous element hydrogen. The hydrogen atom has one proton in the nucleus and one electron around it.

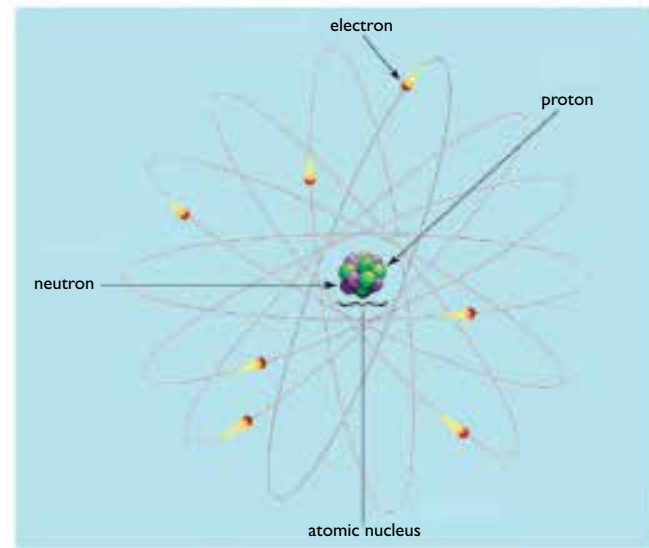
If we now in our thoughts enlarge the image of the nucleus of this atom to the size of a tennis ball, then its distance to the spherical shell, in which the electron spins around the nucleus, is about the size of half the width of a football field.

In short, an atom is a fairly empty entity. Of course, the above-described conception is only a very rough picture of an atom. But it strongly makes it plausible that an atom essentially is a locally condensed form of energy, crystallized energy.

This leads us to the conclusion that matter essentially consists of crystallized energy.

Known laws in quantum mechanics and in the special relativity theory on the equivalence of mass (matter, because without matter there is no mass) and energy confirm this conclusion.

Physical matter in our world, including ourselves, is therefore a world of three-dimensional crystallized energy. And one thing we now know for certain in physics, expressed in the following heart cry that was given to us as beginning students: Listen carefully, so you never forget ... energy is never lost! All energy within a closed system (for example our universe) is retained, whether or not it consists in crystallized form: it never becomes more and never less. It is the first law of thermodynam-



n model of Bohr

ics. Solid matter is therefore nothing more than an organized form of energy. In itself this organization is very special. The second law of thermodynamics is: If there is no organizing force present, energy tends to decay into chaos, the famous law of entropy. Domestically formulated: dust particles in a home always have the tendency to spread and will never lie on a pile, so that they could easily be swept up with dustpan and broom. This second law is also directly related to energy: in nature everything always strives for the lowest possible state of energy.

With gaseous elements, that organizing force is apparently absent because that is one chaotic movement of atoms or molecules. With liquid elements, this organizing force is already stronger, but it is most powerful with solid elements. For example, we humans have a material body, consisting of liquid and solid substances, which are all complex compounds of gaseous, liquid and solid elements.

Although matter is thus crystallized energy, according to the second law, there

is always a tendency within matter to disintegrate, which means to leave the organized form and move to states of lower energy levels and possibly to decay into chaos.

Thus, we can draw the conclusion that transience in this material world, in this order of nature, only concerns the form of organization of matter and not its essence, namely the energy connected with it. Nothing is ever lost.

This energy as a result of matter is not the only form of energy from which we humans exist. Because we know that we also consist partly of consciousness energy. Although that energy is of a totally different order than our material energy, it does satisfy the same property: this energy is also never lost.

1. Moving matter

If a material object moves, then that movement for our dialectical consciousness can only take place in our own physical three-dimensional space. In addition, we have established above that the 'supportive dimension' is indispensable for us to give moving matter a meaningful interpretation. We have become so accustomed to this, that we say that a moving object has speed.

Speed then is the displacement distance of the object in the space within a time interval (for example the number of foot lengths that the object moves within the sound of ten raindrops falling on a hollow piece of wood). In the natural sciences, speed is always expressed in the number of meters that the object moves per second. Here, the measures of meter (unit of distance) and second (unit of time interval) are again the standardized SI units and - as we saw earlier - these measures are thus separated from our subjective experience.

Einstein discovered that we cannot in-

crease the speed of a material object endlessly. He discovered that the ultimate limit, namely the speed of light (in vacuum: almost three hundred thousand kilometres per second), can never be achieved. No matter how hard we push against the object, the speed of light is never attained. This means that we live in a physical universe, which in any case is limited in the possibilities to gain experiences with regard to matter in motion by the speed of light. Limited? Why limited? For a free-thinking person, that is unacceptable. Once again, our nature order impels us to the search for a way out. Why all this? And to what end?

2. The kingdom of heaven is closer than hands and feet

As we have seen, we humans live in a three-dimensional world, as three-dimensional biological beings in a matter world of gases, liquids and impenetrable three-dimensional forms. Even though the zero, the first and the second dimension are enclosed in our three-dimensional world, we are of the third dimension. Only our pictures and movies are still part of the second dimension. But in a line, the first dimension, we can no longer express ourselves at all, let alone in the zero-dimensional dimension of a point.

There is no movement in the spirit-soul world, the immovable kingdom. As a result, according to the foregoing, time is no longer necessary for the unity consciousness to fathom the essence of that world. The three-dimensional, for us impenetrable matter in the forms as we know it, evidently has a different appearance in that world.

What is the impact of this on us: the existence of a natural order in which matter, time and space no longer play a dominant role? It is clear that we hu-

Matter tends to move continuously to states of lower energy levels and possibly to decay to chaos

Everything we do, think, feel or experience has one(measurable) vibration frequency, including every dimension. In every dimension the soul learns the lessons that belong to that particular dimension. In the third dimension, in our stay on earth, we need to assimilate and give unconditional love and light through a physical body that experiences both pain and joy/love.

All dimensions exist simultaneously, and in each other. By having the density of matter in the third dimension things are a physical appearance, and they are often twofold, dual or dialectical.

When the soul becomes stronger and more aware, we see certain problems no longer as opposed to each other, but as multiple possibilities of a situation. Whoever can enter into the living body of the Spiritual School actually opens the fourth dimension for itself, because here the opening of the sanctuary

of the heart is central. The soul vibrations vibrate and resonate in this dimension or soul environment higher than society. A final choice is made here. You learn to know real soul qualities, such as the true meaning of forgiving, of compassion or the positive will to live from the heart, a way of life that is actually diametrically opposed to the old life. That is initially quite difficult!

Even though you still experience the dual forces of good and evil, light and dark, feminine or masculine, the certain knowledge grows that you have the key in your own hands. Self-knowledge grows through the Light, you start working on yourself, and you can do that too. The true struggle to get free is inwardly; the outer world serves as a mirror. You learn that there is every reason to love the world because of this activity. Opposites become perceptible, "I and Thou" becomes a life practice.

You learn what it means when it is said that humanity forms one large entity. Every individual person contributes to this, good or bad, and helps shape the level of consciousness of this unit. The fifth-dimensional man, however, enters the new sphere of life, and forms with his friends, brothers and sisters a new, living cosmos, inspired and carried in the Christ consciousness. The young, conscious soul is now being tasked with new tasks that are being performed in service to others. And at the same time they mean further growth for the individuality, which, however, is no longer isolated.

mans, who have had to invent time to understand our spatial material world, cannot imagine anything at all. But on the basis of the foregoing, we can still say something more about the divine nature. We firstly go back to the essence of awareness in our own natural order. When we observe things within our three-dimensional world, the concept of perception assumes a perfectly concentric (centre-seeking) arranged world. The concentrated attention of a concentric I-observer for a concentrated or non-moving concentrated point of perception within the dimensions zero, one, two or three. In our dialectical order of nature, it always revolves around the self. This I can only observe and take in everything within its world through itself. It can only look at one point, as it were, from an I-point of vantage to an out-of-myself point, which we call the point of observation.

In that sense, that I is a product of its three-dimensional world. The limitations of the three dimensions, including the auxiliary dimension of time, find in the I their reflection, as to their point-specificity in time. This intrinsic to a maximum of the third dimension limited

concentric (centre-seeking) concept is fundamentally transcended by an eccentric (centrifugal) implemented spirit-soul world. Not the I-consciousness that relates everything to itself and is therefore so destructive determines the sensory perception there, but the unified consciousness, for which applies: Receiving everything, letting go of everything and thereby renewing everything. Instead of the concept of a concentrated point, the concept of omnipresence is decisive for perception in the spirit-soul world order. A concentrated point of observation does not matter anymore. It is only about omnipresent observation.

For the omnipresence of presence through the omnipresent mind, the energy field of the immovable kingdom is by definition completely transparent. After all, omnipresent presence would be impossible. Because matter in our physical world is essentially built up by atoms - energy crystallizations as we saw – then matter in the divine nature is also transparent. And because there is no movement anymore in the immovable kingdom for omnipresent observation, there is no difference between one moment of perception and another moment. There is only one moment there: the presence, the eternal now that incorporates the known past, present and future, with which time has also transcended.

In other words:

The immovable kingdom is a natural order of dimensional omnipresence and eternal now-consciousness that encompass all lower (auxiliary) dimensions of our nature order. The omnipresence and the eternal now flow together in omnipresence. It is also clear that in the immovable kingdom, for example, speed is no longer meaningful, let alone that there could be an extreme limit to speed, as it applies in the physical universe known to us. After all, omnipresence implies that the unity consciousness in the immovable kingdom is everywhere in the universe at the same time.

Because at the same time in the immovable kingdom more higher di-

mensions (dimensions with more degrees of freedom than three) play a role than in our material world, we now know from the fundamental property of dimensions that all lower dimensions are contained therein, so also our four dimensions zero, one, two and three. And as we saw before, it also includes time. The latter immediately implies that the unity consciousness of the immovable kingdom is perfectly capable of manifesting itself in a lower dimension and in any form at its own free choice, for example in the three-dimensional time-space domain of our dialectical order (see the Bible, Luke 24: 36-53).

That is why the Christ could also say: Where two or three are united in my name, there I am in their midst. Because that is literally the case. In the first place because in such a meeting the spirit sparks of the participants are reunited and in the second place because then the Christ power from the Kingdom of God is present instantly and concretely.

The opposite however, is dimensionally physically impossible: because a non-transfigured person is still bound to our three-dimensional world as a material entity, he will never be able to

manifest himself in the immovable kingdom, or to be able to connect with a manifestation occurring in our world from the divine nature. Only when our appearance is totally transformed by transfiguration, in such a way that we are part of the unity consciousness, are we part of the spirit-soul world. Then, as a harvest, we triumphantly embrace all our experiences, made in innumerable incarnations, as the consciousness energy, into the unity consciousness in the divine nature as a treasure. And that is where we are actually finally at home. ☀

Uncertainty principles

When Werner Heisenberg (1901 - 1976), one of the founders of quantum mechanics, published his famous 'uncertainty principle' about the place and the impulse of elementary particles, he received a lot of criticism, not the least of which came from the field of theoretical physics. At that time Albert Einstein seems to have spoken his dismissive exclamation that later became famous: "God does not play dice!".

This criticism arose because, at the time, people actually thought that physics had gone as far as it could go. The predominant thought was that everything was already discovered, and that it was only a matter of good formulation and then the *theory of everything* was ready. But with his uncertainty principle, Heisenberg instigated an incredible turning point in modern physics. The world of elementary particles hesitantly opened up to man. Matter actually was energy, as Einstein himself had already discovered this. But the variety therein and the gigantic numbers of elementary particles - energy quanta (packets) - from which the macro-world appeared to exist, still offered physicists a largely unknown area of research. No longer working with certainties now but with statistical possibilities and thus working with uncertainties, made the old school physicists almost desperate.

It is impossible to know both the speed as well as the position of an elementary particle simultaneously with certainty, was Heisenberg's message. And that was completely **contradictory** to deterministic (that which can be determined with certainty) mechanics, such as was practised by Isaac Newton and later on by Albert Einstein himself. And people are still looking for that specific aspect that links the mechanical laws of the macro world with those of the nano world, of quantum mechanics.

Is it really true that God does not throw the dice? What does that actually mean: certainty?



1. How sure can you be?

A human being is born, detaches himself from his mother (and father), endures his puberty and starts building up his social life in this our (un)known and yet sometimes unfamiliar world.

During this development process - very briefly indicated here - you learn a lot of life's lessons, of which, existentially seen, perhaps the most important is the gradual discovery and development of your personal answer to the question: *How can I be safe in this witches' cauldron?*

How can I keep myself upright in the confusing bickering of my noisy biotope?

What should I especially remember to do or to be in order to be able to survive here?

And because we are with so many others, we have to bestow something on each other. So how do I have to present myself in order to please others, thus guaranteeing that also my existence is accepted? And who can or should I trust in it and who absolutely not?

Numerous uncertainties grin at the person who starts this inquiry for himself. And it just depends on how you are put together whether these uncertainties worry you, strike you with fear or make you overconfident.

In any case, in the vast majority of cases we find our way in existence. Everyone initially starts by searching but will gradually settle more and more in a way that is typical for him or her.

We develop characteristic patterns and routines around and in ourselves, which at least avoid as having, more and more, to reflect about everything in our daily life. So it seems that we have it all pretty much under control.

And then occurs what happens so often: you meet someone on your life path with whom you wish to continue your life. Your partner-to-be appears to have a great impact on your private stage. And although everything is sweet and kind, you especially feel its intrusiveness in your ordinary day-to-day life. Your life, in which certainties, habits and routines are the proverbial *stair banisters* with which you have been able to keep on your feet until then.

Because what happens is that your intended partner lives his life in a totally different way! And often there is not much that confronts us more with ourselves than just that. In addition, it is not only the patterns and routines that are different, but also the views and perceptions about important issues in life that differ from yours.

In short, after all the initial cheers and hurrahs, you end up in a process in which everyone's individuality is bent in part into a collectivity, a system that allows you both to live together. If this fails on closer inspection, the roads often separate again.

But very often it does work, at least it looks so on the outside and then for a somewhat longer duration.

Exactly what initially happened with each individual now takes place jointly: new patterns, certainties and routines, ways of presenting and relating are formed. And under penalty of not being recognizable anymore for your partner, these are no longer handrails but can become mandatory railway tracks, which ensure that each of them will not derail on the bends.

If children then come along with all the care, cuddles, pride and joy which they entail, then an almost impregnable fortress of certainty can arise, and neither partner can no longer be able to imagine anything that might disturb it. Both love and suffering are

shared together in a unique way. And finally, parallel to or as part of all this, there are the material certainties, the social career of both parties, the cars, not to mention the holiday travels.

How much certainty do you want?

Of course, the foregoing is only one of the possible life scenarios. However, all of the world's writing paper would not suffice to describe all the possibilities of variation that can exist here. So it may very well be that you do not recognize yourself - or not directly - , or not yet in the above - but certainties you *do* have.

2. Uncertainty opens up new possibilities

In the workplace of our lives we all have to deal with our own life scenario. Also, it is not the scenario itself that we are referring to here, but the way in which we are standing 'in' it and are dealing with it. If all these accumulated certainties lead us to become anxious about losing them, then we have a problem. Then those certainties have become a prison to us and we make it impossible for ourselves to choose a different orientation in our lives. After all, any change therein is a threat to the situation in which we find ourselves and therefore also to our certainties, which we have carefully built up.

What our carefully constructed scenario does not allow for, however, are the unexpected, far-reaching events in our life. And every person comes across them; the death of a parent or a child, our own or our partner's serious illness, the completely unexpected loss of your partner to another person, or a car accident with far-reaching consequences and similar shake-ups. Like a thunder bolt from a clear sky something irreversible occurs, something that is totally in contradiction with your calm and certain existence up to that moment.

And at such a moment it's all about how to handle this tension.

Sure, it mostly happens totally unexpectedly. But does that also mean that you have to keep on mourning for the loss of the certainties that have fallen away in your existence?

Of course, anything and everything suddenly comes to a standstill. Your whole daily life has to be 'reinvented', as it were. Some events, especially those directly related to life or death, are so far-reaching that all routine from the past fades into nothingness, so that it is almost impossible to imagine that they once existed.

From an objective point of view, usually through the eyes of third parties, such a moment in life or that which remains of it, becomes one big uncertain situation.

What will then be your basic attitude? Do you tend to stay in denial and try to stick to the old as much as possible in spite of everything? Or do you face the new state of your life and try to make something of it again?

Especially this last attitude can be very fruitful in discovering other possibilities in your life; options which you would never have occurred to you because of their seemingly incompatible character with your circumstances until then.

In the first case, you do not essentially change anything within your being, and in the second case it can bring about a total revolution in yourself.

Not everyone is capable of that last attitude. For it involves a certain courage and a positive basic attitude to see and seize new opportunities in new situations.

And one thing that becomes completely clear at such a moment is that things will nev-

er be as they used to be. No, now you get the chance to do it differently, to become a pioneer in your own life again.

And similar to the fact that the introduction by Heisenberg of the uncertainty principle opened up a whole new world for the physics community, likewise the uncertainty in your own life can open up previously undreamed-of possibilities for you.

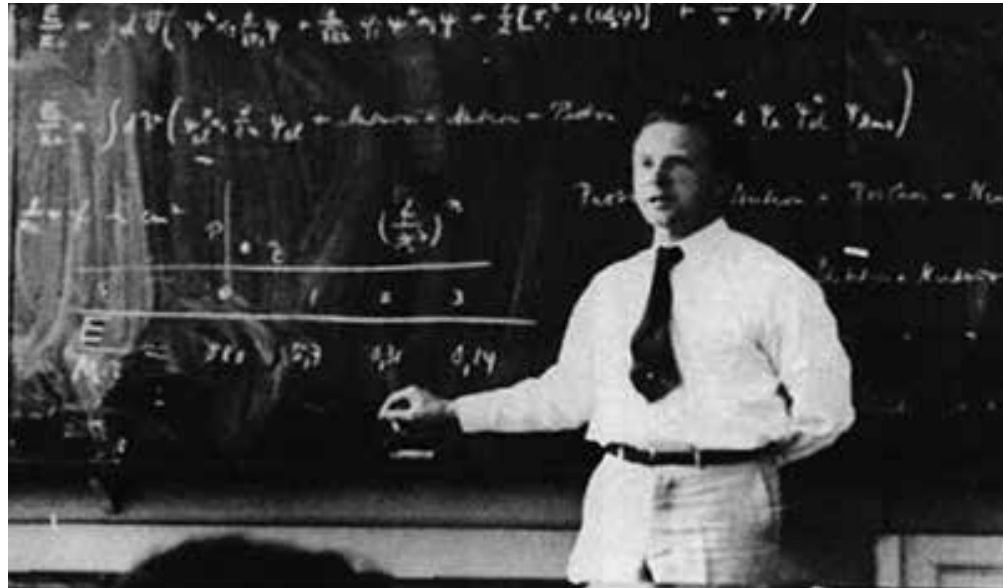
Then the dependence on the old disappears, it is no longer necessary. You will have to determine autonomously how you proceed, with what orientation, where and from when and perhaps with whom. And if you take advantage of the opportunity to completely change your course, this may give you a great stimulus for you to clean up a lot of old junk, often literally but also in a figurative sense, in your head.

Such an opportunity would never have occurred in your old situation. At least, it did not seem likely at the time and frankly speaking it wouldn't have.

3. The art is to remain 'open'

When Albert Einstein says, "God does not play dice," he seems to be referring to a personal god, like Michelangelo's painting on the ceiling of the Sistine Chapel of the Vatican in Rome. But in these times His favourite piece of furniture is not a cloud anymore, but a folding table on which to lightly roll the dice, by which to decide the fate of the world, or if you like, to determine yours.

Within the Rosycross we know for sure that such a romantic image can well be relegated to the realm of fables. The relation of the deity with mankind in any case is not at all like that. After all, it is man himself, who is of 'high descent', at least a part of him, the spiritual spark atom within, who that refers to. Because of the carefully programmed 'noisy' life that you led in the past, you were too busy and there was too much noise in your system to become aware of that spiritual spark atom within yourself, let alone become acquainted with it. For it is only a softly glowing presence in your heart, and hardly perceptible to us. A soft whispering that you can hardly hear.



In 1929 Heisenberg spent some time in India as a guest of the famous Indian poet Rabindranath Tagore, with whom he had long conversations about science and Indian philosophy. This introduction to Indian thought had greatly relieved him, Heisenberg told me. He had come to realize that relativity, the interwovenness of everything and the transient nature of things are fundamental aspects of physical reality, and that what was so difficult to understand for himself and his fellow physicists, is precisely the basis formed of Indian spiritual traditions. "After these conversations with Tagore," he said, "some of the ideas that seemed so insane suddenly became more logical. That was a big help for me." Fritjof Capra, *Uncommon Wisdom*, page 43

Normal dialectical life is so easily able to drown out and blind us to its soft glow with its bright light and glamour.

But if, at a turning point, dialectical life falters for a moment and there is no new routine yet, then a hesitant silence can arise in your being. Then the outer dazzling lights are extinguished for a short while and all the noise and busy-ness fall away. It may be only for a short moment that you get the opportunity to tune in to that silent darkness in yourself, yet, in that moment there is a chance that you will experience the whisper and the soft glow in your heart.

When that happens, it is still largely unconsciously expressed in the questions that arise within you. Questions like: "Who or what am I really?", "Where do I come from?" And "Why am I here?"

These are no longer questions referring to your 'slice' of the 'cake' in the current material reality. On the contrary, they express our ignorance and uncertainty regarding our cosmological place in creation. On the other hand, they express a consciousness of something that exists beyond our limits of experience. It is a consciousness that in intense wondering looks deeply into the phenomenon of life itself.

It is a very special moment of openness and for the first time in your life you may feel truly surprised and experience an almost anxious curiosity about the true meaning of your existence! It is as if something new is born in you that you recognize because it was part of your system in a far past, but which was lost 'on the way'. This vague memory gives you an openness, an openness that feels good, but at the same time makes you realize that all non-commitment from now on disappears from your life.

Now the choice is yours: will you follow this unprecedented newness, and try to cherish that openness and discover what that soft glow within you means for your life? Or do you allow yourself to sink back again into the armoured security of an existence focused on matter? This is the daily choice process that is placed before your consciousness and from this moment on it becomes your new process of life- and change will never cease again, day in, day out. You have to make choices between what is 'easy' - because well-known and therefore trusted - temptations of this nature on the one hand and the challenging but also joyful exploration of the path of return on the other. Back to the world of that 'high descent' of the eternal being with which we are apparently connected: that world is not somewhere physically outside of our existence reality, but it is a reality of an infinitely higher order in the here and now to which we, as human beings, simply have no perception or access.

We do not have it, but the source of that soft whisper in us, that spiritual spark atom, has it. And now the great miracle: if we human beings begin to realize our calling to go back in this life and we commit ourselves to that path, the whispering within us will become stronger, and that voice will lead us more and more. Our goal of life will then become the going of the path of return, which daily increases in importance. And completely contrary to all of our high material priorities from the past now that new path becomes the only path, our main goal. ★

Garden of Eden



From a scorched world ... Herd in an Amazon rainforest © Michael Nichols / National Geographic

My aunt who lived on Beech Avenue, was my only real aunt. Real, in the sense that she clearly loved me and took a genuine interest in me. I often stayed with her and as soon as I had greeted her, I always ran through her garden to the forest behind it. There was the Great Mystery: a maze, named 'Garden of Eden'. I was not so much concerned with the name but was delighted with the maze itself. It was unusually large; no matter how often you went through it, you could never remember how to walk through it again. First you had to buy a ticket with the old man and I loved him very much. He was quiet and often smiled. He was constantly busy maintaining the maze. All the hedges were trimmed so equally, that they did not allow you to detect whether you had been there yet: no twig stuck out. From bottom to top the hedges were dense and green and most of the time only sounds made it clear that a lot of other people were searching for the true path as well.

So, first you had to buy a ticket, but aunty had said that all my tickets had already been paid for and indeed I got one every time, with a wink. For hours and hours I wandered through the maze and it never bored me. And every time, I came out by the same gate through which I entered. Entrance and exit were only separated by a hedge.

When I was twelve, I developed some other interests and stayed less often with my aunt. But always, really always, I went to the maze first, even by the time that I started to find it a bit childish. The tradition was stronger: the maze stood for joy and play, discovery and adventure.

At the age of sixteen – after a few months absence I visited my aunt again – I received a big shock. I ran as usual through the garden to the forest, but everything was now different. The maze: where had it gone? Speechless I stared at the bare plain, from which all the hedges had been removed and the old paths were only separated by strips of neatly raked earth. Only the gate still stood there: that proud, wrought-iron gate, crowned with golden spheres. The beloved old maze guard had gone as well. There was a young man instead, who laughed at me warmly. But I was not in the



... right through the night of the soul... Starry night above the Okavango swamp in Botswana, Limpopo, South Africa

mood; I was shocked to all my fibres. I expressed my horror, I shouted at him that he did not have the right; I cried because the old man was not there. The young man wanted to comfort me but I pushed him away. 'You ruined everything!' I screamed. 'The most beautiful maze of the whole world, and now there is absolutely nothing at all!' When he finally succeeded in interrupting, he made out that it was no big deal: after all, I had known for a long time that one only wandered round and round, and that one came out where one had come in; where was the sense in this detour? Now you could easily see where to go. The old man had passed away and he had taken over the maze. He did not need to trim the hedges all the time; it was enough to rake the paths once a day, for the people neatly stayed on the paths.

'People? What people! You don't think that they still want to come here?' I growled and he silently pointed at a row of people at the ticket office, which I had not seen in my horror. 'I will go and help them,' he said and turned around. I looked at the row in disbelief and saw people buy tickets as if nothing happened and they entered the gate on the left side. They walked along the paths and shouted the phrases they always shouted: 'No, it is closed here; we have to go back!' and 'Haven't we been here before?' How was this possible? When the whole row of people had entered the maze I walked, still outraged, towards the young man. 'Why are people doing this? They can just see where the exit is!' 'No,' he said, 'they don't. You see it.' It became too much for me. I turned around and went back to aunty's garden. Behind me I heard him shout: 'You may always enter the maze, whenever you wish!'

That was five years ago and I did not go there anymore in that period. I mourned, I actually mourned about the loss of my childhood happiness. I did not understand. My aunt noticed that I did not go anymore but said nothing about it. She just welcomed me and treated me like before.

Now she stands in the kitchen and I stare into the garden, in the direction of the forest. The last thing that the young man had shouted, has never left me. I dream about it and wake up with it.



... to the Garden of Eden. Pink Paradise in Thailand © Dao in Worldofdao.com

The impression of it often accompanies me throughout the day, but the memory of disgust is too strong and had its influence on my further life. From then on, I have never been really happy again; it seems as if the hedges have been removed all over the place! As if I know that I could have been very happy if they had not been taken away. I now only act as if I am happy. I laugh and I frolic, but it feels all empty inside.

Then suddenly, spontaneously I hear myself crying: 'I shall go to the maze for a while, aunty!' I stick my head around the door for a moment and see her nodding radiantly at me. There is a tear running down her cheek but I am in a hurry; I have to go to the forest. A golden glow illuminates the paths but the maze has not grown back. The young man looks at me earnestly: 'I knew that you would come; please enter the maze.' Hesitantly I take off to step over the boundary strip of earth, but he stops me: 'You must enter through the gate, just like everyone.' This is utter nonsense, I think, but I am in a strange state of peace with myself that I cannot explain. There seems to be a big bubble of joy inside me, actually more like a bubble of love. I slowly follow the young man and want to ask for a ticket but before I know it, he has given me one. It is a shiny ticket, much more beautiful than the old ones were. I cannot understand anything, but before I can ask a question the young maze guard says: 'From now on you will get one of your tickets back, every time that you enter the maze. They have become much more valuable, too.'

Because everything is very mysterious now, inside as well as outside myself, I just walk through the gate, at the left side, as if the hedge is still there. But what is that? Once inside, a marvellous landscape unfolds for me: plants and flowers wherever I look, trees and bushes, with paths of light sand in between. Instead of being flat and straight, they wind in all directions, even up and down and I go through the maze, thrilled, and discover now, only now, the reason why it is called Garden of Eden. ✪

The Philosopher's Stone



In alchemy the Philosopher's Stone, also known as the Stone of the wise is a legendary substance that in a magical way is able to transform certain lesser metals such as quicksilver into gold or silver. This stone was also known as the elixir of life, and a rejuvenating power was ascribed to it. It could even make you immortal.

In an esoteric sense, this philosopher's stone represents enlightenment, bliss and perfection and it was the ultimate goal of alchemy to create this stone. The symbol consists of a circle within a square, surrounded by a triangle around which once more another circle is drawn, and this should prove the quadrature of the circle.

Michael Maier used this image in the famous 21st picture of *Atalanta fugiens*, his emblem book wherein he explains procedure, goal and secrets of alchemy.

'Make a circle around a man and a woman, place these inside a square, and draw a circle around all that and then you have the stone of the wise.'

If this stone was prepared, the alchemist or gnostic magician, has at his disposal the power to lead any substance once more back to an unspoiled, pure state, as it exists in the pure dialectics of the highest heat sphere of our earth.



Image XXI from *Atalanta fugiens* (1617) by Michael Maier, fervent defender of the classic Rosicrucians.

Yuval Noah Harari, 21 lessons for the 21st century



Yuval Noah Harari,
21 Lessons for the 21st Century.
English edition 2018

The Israeli professor Harari has recently become a writer of bestsellers: of his two published books 'Sapiens' and 'Homo Deus', 2.5 million copies have been sold worldwide. In 'Sapiens' he told his story of creation, in 'Homo Deus' he foresaw the end of mankind and warned against the homo sapiens becoming otiose by the advancing technical developments. And now, in this third book, he offers lessons to suspend the end of time for a while', according to the NRC review.

This book has five parts: Technological challenges, Political challenges, Hope and despair (terrorism, war, humility, God, secularism), Truth (ignorance, justice, science fiction), Resilience (education, meaning, meditation). Harari reflects on the most important forces that affect our societies all over the world and that will most likely affect the future of our planet as a whole. The overarching question is: what is currently happening in the world and what is its deeper meaning? The author wants to emphasize the links between the great revolutions of our era and the soul life of particular individuals.

In Technological developments he warns that we may be heading towards the last act of Homo sapiens, by trusting the technological developments to a few megalomaniac millionaires. People are giving more and more power to algorithms, as a result of which communities and state forms are increasingly being controlled by computers. Biotechnology will only be accessible to elites: the masses become irrelevant.

Quote: 'Artificial intelligence and biotechnology give humanity the ability to convert and transform life according to its own insight. Very soon someone will have to decide how that power will be used, and that will be done on the basis of a story about the meaning of life. So you have to have a clear idea what life is about or you must be satisfied in entrusting the future of all life to the quarterly figures of this or that company.'

Time and again he refers to that sense of purpose. Algorithms and robots won't eradicate entire professional groups at short notice, yet a new 'superfluous class' may arise. The risk of social and political disruption is so alarming that we have to take the possibility of systematic mass unemployment very seriously. We should look at new models for societies, no longer based on labour anymore. In the lives of all people, the search for meaning and community spirit may become more important than looking for work.

And how free will man be in such a future?? If the biotech revolution is combined with the infotech revolution, it will produce big-data algorithms that can monitor and understand my feelings better than I do myself, and then a power shift will take place from people to computers. My illusions about my free will probably disappear if I am confronted daily with institutions, large companies and government agencies that fully understand and manipulate that which was always my inaccessible inner world.

In the chapter Big Data is watching you, it becomes clear how far digital dictatorship of the algorithms go.

Intelligence and consciousness are two different things, says Harari, and unfortunately, we are not doing much research and development of human consciousness at the moment. We do not even have an idea of how far human potential reaches, because we know so little about the human mind. And he warns again: if we are not careful, soon we will be using downgraded people who use upgraded computers to destroy themselves and the world.

And then there is globalisation. There are signs that inequality is increasing. Some are reaping the benefits of globalisation, while billions of people are left empty-handed. The richest one percent owns half of the wealth in the world, the richest one hundred possess more than the poorest four billion. This is going to get worse. Who has the data, has the future. This could lead, Harari suggests, to humanity splitting into a small class of supermen and a massive underclass of completely unnecessary homo sapiens. As soon as a crisis comes, a climate disaster, for example, it will be too tempting and easy to throw all these unnecessary people overboard. Not an unthinkable doom scenario.



There are many more challenges, for example a major nuclear war. This is a threat to all countries, so all countries benefit from preventing such a thing. But global warming affects different countries in different ways. So, in the context of climate change, nationalist isolationism is much more dangerous. Yet, the greatest danger remains the use of biotech and algorithms to upgrade people and create new forms of life. If mankind wants to be able to draw up and comply with globally accepted ethical guidelines, then they will have to go far beyond the nationalist point of view and take a global or

even cosmic perspective. Is that going to work? Would not the universal religious traditions of man help us to unite the world in this? A naive question, because nationalism and religion still divide our human civilization into different, often hostile, camps. The clash between global problems and regional identities is more current than ever. War is no longer a successful concept, Harari shows, even in the Middle East, the 'fighting cage of the world'. But even if wars in the 21st century do not turn out to be very profitable, that is not yet a guarantee for peace. Let's

Historian Yuval Noah Harari.
© Bram Budel photography

not underestimate human stupidity!

How, he asks, can we teach people, with their religions and cultures, a little more realism and modesty about their real position in the world? He then pleads for humility, not against the god of IS, the god of the crusaders or the inquisition, but humility towards "the mystery of life", where he would rather use other words to avoid confusion. Know your own shadow sides, his advice is in the chapter on secularism. "Now that

we are about to take the most important decisions in the history of life on earth, I would put more trust in people who acknowledge their own ignorance than in people who claim infallibility. Because every religion, ideology or world view has made mistakes.”

Then there is a chapter on Righteousness. In the past, the connection between cause and effect was easy to see. Now there is an insurmountable network of economic and political ties and the system is constructed in such a way that people who do not bother to find out how it works, can ‘live in blissful ignorance’. But in a world where everything is connected to everything, the highest moral commandment should be the commandment ‘to know’! We face global problems without having a global community. Must we then conclude that the human striving for truth and righteousness has failed? Harari leaves it to the reader to answer this. However, the idea is that the world is not really complicated, and he maintains that the assumption of an absolute good and an absolute evil is one of the greatest scams. We live in captivity, authenticity is a myth, people are trapped in their own brains, are locked up in human society with its countless inventions. The killing of the robot will not free us! Then follows part 5, Resil-

ience, with the motto: How do you live in a chaotic time when the old stories have collapsed and there is no new story to replace them? What skills will man need in 2050 to find his way through the maze of life? Not only the economy, but the whole idea of what is ‘human’ will probably change. The best advice that Harari gives young people, is not to rely too much on the adults. They no longer understand how the world works. But what then? Listen to yourself! If you want to keep a little more control over your own existence and the future of life on earth, then you will have to do better than the algorithms, Amazon and the government, to make sure you get to know yourself before they do. It is a race against the clock. If you want to stay ahead, do not take too much luggage with you. Leave all your illusions behind. They weigh too much. The book ends with a chapter on Meaning. When we search for the meaning of life, we want a story that explains how reality works and what our own role in the great cosmic drama is. That role makes us a part of something bigger than ourselves and gives meaning to all our experiences and choices. He uses the Bhagavad Gita to quote. Prince Arjuna asks himself what is right and what is wrong. Krishna explains, that every being in

the great cosmic cycle has its own unique ‘dharma’. If you refuse to follow your dharma, you disturb the cosmic balance, and you will never find peace or joy. When you complete your dharma, you are freed from all doubt, your mind comes to rest. There are many stories, and there is, in addition, the progress of the great circle of life, in which the cosmic drama is a cyclical story. Other religions and ideologies believe in a linear cosmic drama. They are stories that offer an identity and make my life meaningful, because it embeds me in something bigger than myself. Yet there is the danger that I am going to wonder what the meaning of that ‘bigger’ is. After listing all possible “stories” in the history of mankind, from time to time fanatics arise who demand that people believe in only one story. Harari draws the conclusion: life is not a story. If you want to know the truth about the universe, the meaning of life and your own identity, you’d best start by looking at the suffering in the world and investigate exactly what it is. The answer is: no story. Suffering is the most genuine thing there is. Finally, after analysing so many stories, religions and ideologies, in the last chapter the writer lets the readers know through which glasses he now views the world.

Nowhere did he, as a teenager, find answers to the big questions of life, to the question of why there was so much suffering in the world. The university did not give satisfactory answers. Finally, he came to meditation, to come to the sobering conclusion that he knew nothing about his own mind and had very little control over it. Science has no efficient means to decipher the mysteries of the mind. A person can only examine his own mind, and serious meditation requires a great deal of discipline. That is why Harari warns: it could become crucial to get to know our mind before the algorithms are ahead of us and give it their own twist. In the coming years or decades, the choice is still up to us. If we take the trouble, we can still investigate who we actually are. But if we want to take advantage of that opportunity, we have to start with that now ... 🌟

‘A visible spirit sent by God’

A CONTRIBUTION TO THE DISCUSSION ABOUT THE IDENTITY OF SHAKESPEARE AND THE UNIQUE COHERENCE OF HIS OEUVRE

In response to our book review of Jaap Ruseler’s book *The Mystery of Francis Bacon*, the editors received an article from the French language area, which we include here as a contribution to the age-old discussion about one of the most brilliant playwrights that ever lived.

In the past, many authors, each in his own field, have extolled on the existence of a perfect life - the original life in the highest ethereal regions of the cosmos, and of the possibility given to material man to retrieve that lost field of life *through* material man, namely by no longer opening his being to the motions and illusions of this world, but to the cleansing rays of the divine realms, the paradisiacal life to which every human being participates.

It is the hermetic triptych:

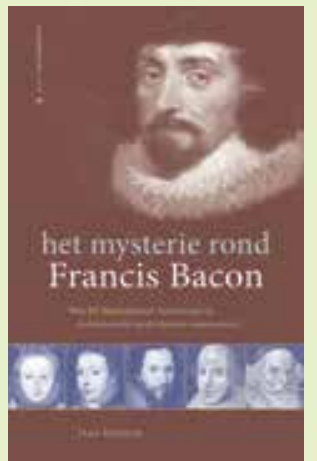
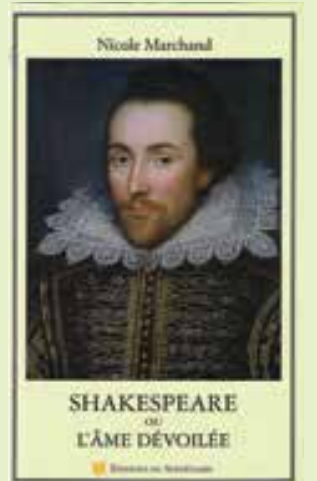
- The retreat of the human soul from the heavenly domain,
- her fall on earth in a physical body,
- the possibility of regaining its original state through a process of transmutation.

Though he did not receive a place among the ‘visible spirits sent by God’ - as Shakespeare calls them – to proclaim this third process, we can certainly count him in, too. Rare are those who have tried to gauge the consciousness of the man Shakespeare, to penetrate into the ‘religious’ consciousness of Shakespeare. Despite the fact that he often quotes the canonical gospels and Paul of Tarsus, no one has dwelt on the question of the special essence of the ‘religious accent’ that characterizes him or the fact that he did not belong to any organized religion, while yet God is omnipresent in his works. The reason for this is that Shakespeare, as the hermetic initiate he was at a time when it was better not to display it, could easily hide, in both heart and mind, his connection with the Hermetic principles. Yet he shows it with power, with fire, and often not without the scornful criticism of ignorant ones; but he does it veiled, as all initiates do: with an unusual symbolic

language with which you can go in all directions, e.g. in the language of the birds in which the laws of Freudian dream worlds are manifest.

All too often Shakespeare is reduced to the brilliant dramaturge who can surprise the spectators with breathtaking twists: the ‘coups de théâtre’, or conjugations of the mind. Horrors and dismay dominate his texts so much that the essence is easily masked: the true teachings and message of Shakespeare! Because his oeuvre certainly contains a teaching! Without this one cannot approach Shakespeare, because this tells us who he really was.

That teaching shows us its true identity, shows us the basic ideas, the orientation of their developments and their outcome - the capital point where Shakespeare hands us the key to the meaning of the play. This ‘teaching’ is purely Hermetic, like the Italian



Renaissance was, which appeared on the London scene shortly before Shakespeare showed it to the world of his time; mainly by Marcilio Ficino who translated the scripts of timeless wisdom attributed to Hermes Trismegistos and by Pico della Mirandola; to mention the most famous ones.

Was Shakespeare a hermetic? Maybe even a heretic? Yes!

Whether it was in *Midsummer Night's Dream*, in *Macbeth*, the *Merchant of Venice*, *Hamlet* or *the Tempest*, the great, unique care that justifies the whole event in those pieces is, as in the Oratio of Pico della Mirandola, the preservation of true magic, the magic salvation, the call of the divine word, and distinctly separated from all this is the false magic, the occult, black, grey or self-proclaimed white magic that chains man to his earthly bonds and thus exploits his desires and unconscious fears.

It is the magic of Prospero in *the Tempest*: a conceited self-willed magician with a petrified heart, filled with his power and his black art in the service of his revenge. An extremely dangerous magic that ultimately, like Macbeth's witches, uses incantations, words and objects that are loaded with negative forces. The other, pure magic is simply *'the conscious bond with the Pure that again creates*

the pure' as Plato already expressed it. It is the magical calling to the divine spheres of the heart that is troubled by the earthly illusions, and the light-power of the merciful answer; the healing, clear forces, sent into the 'solidified' blood in man, says Shakespeare, by sublime Seraphim and Cherubim, dear to all Hermetics who want to connect with Them, for they are the head and heart of God's being. This magic does not chain man to anyone or anything, but it etches *'the rose on the forehead of the innocent love'* as Hamlet calls to his mother. It is at least the thorem defended by Nicole Marchand with strength and proof, most closely connected with the texts in her two books on Shakespeare, which have appeared in Editions du Septénaire.

One can know the true identity of Shakespeare, she says, in the tenacity with which he tries at the same time to obscure as well as spread the hermetic theory of transfiguration for all, with alternating alchemical and cosmological concepts who accompany it (the transfiguration) in a shining darkness from the beginning of time.

The idea of transfiguration is *'not like his flurries of imagination, the poet's dreams'* that require our attention!

Shakespeare literally claims it at the end of *A Midsummer Night's Dream* through the mouth of Hippolyta: the transfiguration of the soul, she says to her husband Theseus, who doubts it, is *'something that possesses durability, permanence'*. And she finds that it is there that one finds the meaning of the miraculous turnaround in the enchanted forest of Athens, experienced by four young people during a strange night of which this fragment expresses the essentials of that fairy-like appearance. They have, she says, *simultaneously experienced the transfiguration of their soul.*

That constant factor, the theme of the transfiguration, is the touchstone that tells us: 'here is Shakespeare - the true Shakespeare - the esoteric Shakespeare', with recognizable accents, ignited in love for the truth and the liberating Light; sometimes strict and demanding against the defeated soul of Hamlet, then sweet as honey in the enraptured soul of Lorenzo, lost in the harmonious view of the spheres. But this true Shakespeare hides himself - it must of course be so - behind the exoteric Shakespeare, who withdraws himself from popular religious thinking, in which there is no place for a definite soul state. As is the case in his historical pieces that are so

totally different from the plays on the basis of the philosophical-hermetic balance of 'hidden and revealed'. In short, there are two Shakespeares in one; just as in each of us lives the one who performs our worldly functions (at his best in the theatre world) and will try to speak in other places 'in the spirit of truth'. The controversial thesis in the beginning of the twentieth century that behind Shakespeare there must be another Shakespeare (about a dozen names have been put forward) is, in her opinion, no longer tenable today. That assumption from the beginning of the previous century was inspired by rumours that were enviously spread by some contemporaries, as well as the doubts about his origins and upbringing.

It is untenable (first rumour) to maintain today that Shakespeare 'descended from the common people' and did not have the proper upbringing necessary to write such masterpieces. He was the son of a wealthy citizen, merchant and tenant, the mayor of Stratford, endowed with a coat of arms, acquired for his father by Shakespeare himself. This blazon, probably devised by Shakespeare, shows two swords (spears?) as a reference to the author's name he chose for himself: 'Shakespeare'). It is equally incorrect to claim that Shakespeare was

'illiterate'. In 1575, at the age of 11, he joined the Grammar School in Stratford, where teaching was given in Latin!

It is assumed that he learned to read Latin through - yes - the metamorphoses of Ovid. Moreover, he could not be as ignorant as it is claimed because his historical pieces were directly inspired by the Chronicles of England, Scotland, and Ireland by Holinshed (reissued in 1587). These Chronicles in turn found their inspiration in the book of Edward Hall: The union of two noble and illustrious families of Lancaster and York. And Shakespeare was inspired to use it.

It is very likely that the historical dramas of Shakespeare, which were popular with the general public at the time because of the repulsion they caused, were mainly intended as fodder to maintain the desire for more. No in-depth analysis is needed to see that Shakespeare made no effort to put a mental construction into those pieces: a monotonous chain of evil, crime, lowness, misplaced prayers, and so on ... child's play for a mind like his! It is equally probable that the omnipresent element in his pieces is money on which Shakespeare makes an allusion in his sonnet 111, in which he writes: 'the money from such audience creates low manners'. The true, hermetic doctrine of



Shakespeare expresses itself in an inviolable way: tightly structured, with precise alchemical formulas, exact and recurring cosmological data in all reflections where various subthemes are masterly brought together under the same main theme.

As far as the historical identity of Shakespeare is concerned: in modern literary science, nobody disputes that Shakespeare has indeed been Shakespeare. We know that he *himself* offered his poems and dedicated them to the Duke of Southampton and that he published them him-

self in 1609. *'I am convinced that Shakespeare is indeed Shakespeare'* explains the English historian Frances A. Yates. And Nicole Marchand confirms this with the proof of a similar hermetic verse, identical to himself, roaming from one place to another as the silver thread; the pearl, hidden in his oeuvre.

This is moreover confirmed by Shakespeare's magnificent sonnet, which he himself dedicates to the Duke of Southampton, patron of his theatrical company: he exposes the fragility of the transient, the mortal, as opposed to the immutable, the enduring of

The only image of William Shakespeare, as he really looked at the age of 33. At least according to the claim of the historian Mark Griffiths, who found the image in the book *Herball or Generall History or Plantes* from 1598, and also found an unknown play by Shakespeare. © Country Life, cover of the May 2015 edition. © Country Life, omslag van de editie van mei 2015

the timeless, spiritual values. It is about letting the former be what it is and to live up to the second! In his words: 'if death has died, then death is there is no more'. It is the triumph of liberating knowledge, sung here by the poet and played by the dramaturge!

Shakespeare was thus a well-known author:

– who wrote those typical pieces that stood out for their style and their unmistakable hermetic character;

– who also wrote pieces 'for the many' as well, openly, like his participation in 'Edward III' by Marlowe, and to 'Hendrik VIII' by Fletcher).

And it is not so surprising that in the beginning of the twentieth century one was overcome by the aforementioned strange excitement and saw Frances Bacon in Shakespeare. Especially when we remember that Shakespeare's ideas were also those of the Rosycross, which Bacon also shared, and that Shakespeare had regular contacts with the Rosicrucians of his time, most probably at the same time as Bacon and Fludd had, with whom he developed hermetic themes. But that one of the two would 'hide' behind the name 'Shakespeare' is also rather unlikely for another reason: a true Hermetic who lives for the truth and for the inner glory of his inner, true being, will not lie. And Shakespeare corrected and edited his own

texts, often under the eyes of his actors - so, who was hiding behind Shakespeare? Only himself, the true Shakespeare!

For a long time, behind the exoteric Shakespeare of the historical pieces, the esoteric Shakespeare was hidden before the eyes of the researchers. Because who could think that transfiguration was something other than just a play? That Shakespeare only tried to give a theoretical foundation to his play or noted haughtily that it was only about medieval moralities? It was not very well known that the Hermetic way of thinking offered - and still offers - a 'practical' path of initiation - a way in which the mystery of immortality can really be realized here, even while one is still living on earth. At the end of a *Midsummer Night's Dream*, Theseus also shrugs at such a 'foolish' thought! The spectators do, too; have they not just been amused by all this? And would the exegetes be able to go against this vision?

On the part of Shakespeare, one can understand that he was careful not to preach the mystery of transfiguration loudly everywhere, in a Europe in which, at the end of the Renaissance (1600!), the great Giordano Bruno was burned at the stake to set an example, because he dared to defy the ecclesiastical dogmas. No, it was better not to be

found on the side of the 'heretics', the 'sons of pride', who proclaimed 'to be God-like' and dared approach God directly in their inner being, through the Gnosis, true knowledge, pure and without shadow: the inheritance and privilege of the inner man! That is why Shakespeare portrayed women as 'perfect', 'angels', 'innocent' and so on in his pieces. Who in the audience would then think that they in fact represented the soul of the first Adam! And yet, they do! The soul of the first Adam was 'the bride of God', and she did not confess to the doctrine of evil, as did Desdemona, she who chased the demons away.

That is how Shakespeare speaks! He speaks the language that can only be understood by a consciousness that loves the truth. He speaks as only an initiate can do: in silent expectation of the day when he, Shakespeare - humble author and actor, who died after only 52 years - will finally be 'revealed'; where one will finally know who he really was: 'a visible spirit, sent by God', with a mission, and this equal to that of Hamlet: the heart of his mother, hardened by worldly pleasures, breaking into two pieces and he has her say: 'leave the unclean part of your heart, and live from now on, cleansed, with the other half'.

Could a discerning, conscious

humanity be willing to accept this *new Shakespeare*? To acknowledge him in their heart and to be taught by him?

Reference

<http://nicole-marchand-enigmes-sur-shakespeare.eu/>



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