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Radiesthesia and Science.
or

**Experiments to investigate the orientational ability
of lifeforms - Motivation for a necessary paradigm
change in the world view of physics?**

Abstract

Over one hundred years of careful and intense research in radiesthesia carried out by diviners have described complex but predominantly reproducible phenomena which defy explanation using the general principles of physics. There are also many observations concerning the orientational ability of lifeforms that can not be interpreted according to prevailing physical laws. Rupert Sheldrake shows that using the hypothesis of morphic fields, the courses of many biological experiments can be explained. If this knowledge is applied to the radiesthesia experiments, then many of observations made there can also be understood.

If it were possible to decode the physical structure of morphical fields, it would be necessary to expand physical paradigms. The search for these fields could potentially lead to results in the realm of invisible dark matter.

Using their senses, humans acting as detectors in radiesthesia can carry out the preparatory work for the device-related development in this field just as earlier research in astrophysics was first based on the subjective observations by the naked eye.

Introduction

The use of diving rods or pendulums is a phenomenon that has interested people for a very long time. Many people still use these techniques to find particular locations with certain characteristics or „qualities“.

/Balck: arte-2005.htm/ Hans Schröter /Mallien 2004/

These locations include, for example, good sleeping places, locations with particular radiant emissions, „holy places“ or sites which contain water. Through experience using these devices, we know that such structures with different characteristics exist on Earth.

When it comes to plants and animals things are different; it can be seen that there are „radiation seekers“ and „radiation avoiders“. These lifeforms can naturally differentiate between varying „qualities“ of places without the help of any aids.

As shown in these investigations, many people also possess such sensors and are therefore naturally more perceptive. However, the further development of their ability to sense these signals is not trained in their youth. Parents did not teach it to their children!

The controversy over the scientific explanation of the phenomenon of the diving rod would never have come up if we had not, just like animals been drawn to divined locations such as a hidden watering hole, gone there and begun digging.

Neuroscience and physics have long since taken up the challenge and developed an explanation for how such a search takes place.

Even if not everyone had this ability, it would have been natural for those without it to use the help of those who did and in no way dismiss or ignore them, just as not everyone can sing, draw or narrate well.

However, things are different now. The number of nonbelievers is large. A whole host of sceptics has descended upon the use of diving rods or pendulums and is continually finding weaknesses when a search does not deliver the promised results.

Thus, the natural method, which is sensitive to locational differences, is the most direct path to the goal. This way science will relearn to use personal perception of experimentors to guide them in new areas of research just as Keppler or Galileo used their own eyes too in order to expand our view of the Earth.

The statement „if you cannot measure it, means it does not exist“ assumes that one knows how and with what instruments to measure.

We can observe abilities in animals which we cannot explain. How do migrating mammals find their way in unknown terrain? How do they recognize underground watering holes that they can dig for? How do migratory birds find last year's breeding grounds and their partners after a long trip?

How do blind people orient themselves? Lusseyran writes that as a blind person, he learned to describe objects located behind a mountain. /Lusseyran 1989/

These are all phenomena which doubtlessly work but are difficult to explain using classical science. When people belittle the use of diving rods or pendulums and label it as self-deception or categorize into the realm of esoteric, then they must also deny the ability of animals and people to employ natural processes. However, here the critics are stumped. The investigation of the natural method is an important key to finding a solution to the problem.

Science, Dealing with the Unexplainable

Since the end of the Middle Ages, the scientific mindset which focusses mainly on observation has gradually developed in Europe. In some fields it was possible to dogmatically defy the results of newer findings („the Earth is flat“). Even today, the fear of the consequences of new data is prevalent in some areas of research.

So even in the present-day (20th and 21st century) it is very difficult to publish research findings from the scientific frontier in established journals. The groups of reviewers are careful to avoid articles containing highly controversial opinions or results which contradict the current state of scientific knowledge. For the time being, a well-organized community of „sceptics“ are busy publically presenting failed experiments of others. /Randi, 1 Million Dollar/

Even scientifically well-founded reports of new technologies, such as information transfer in biological and other systems, are poorly circulated only because the functionality had not yet been defined.

An example: „Informed Support Materials“, Plocher-System pg. 34 in /Bischof 2005/ page 5

» It should be clear to every reader of this study regarding innovative energy, that behind every even short depiction

presented here many people have done good work conducting and documenting a large number of investigations and experiments. Still, some results contradict the possibilities presented by our familiar physical understanding. Some would say „that cannot be“ but really mean „with all of my knowledge and experience I cannot imagine how that should work.“ We should therefore be open for new ideas, especially when things do not fit into our hitherto existing world view. «

In the past, there have been certain observations and consequent interpretations which had the potential to disrupt the world view and were therefore ignored or even forbidden. It was necessary for mankind to construct world views or theories in order to understand the world, i.e. if they wanted the ability to predict processes in the immediate future. What will the dark clouds in the sky bring? Where will a stone fall? How far will an arrow fly? When will the sun rise tomorrow? When will winter begin? Improvements in measuring and monitoring technologies lead to an increase of information with time. This strong growth in experience led to the development of specialists such as mathematicians, physicists, doctors, chemists, biologists, engineers and others out of the general field of academics. Nowadays there are a large number of disciplines with ever-growing numbers of specialties and specialists. Therefore, interdisciplinary or transdisciplinary work in the sense of „building bridges“ is in great demand. It is of no avail when overall view is lost (Figure 01).

Illobrand von Ludwiger spoke of the „fusing of religion and natural sciences“ in connection with the quantum field theory of Burkhard Heim. /I.v. Ludwiger, 2006/ The topic of diving rods has not yet been accepted by the scientific community eventhough an extensive bibliography exists to support it. From 1610 to 1912, over 100 publications came out and in the following century through today the intensity to scientifically explain this phenomenon has not diminished. /Klinckowstroem 1912/

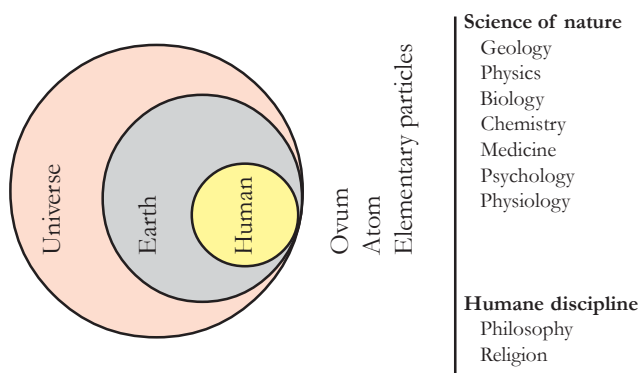


Fig. 01: How we see our world: from elementary particles to mankind - The specialization into different sectors causes scientific fields to distance themselves from one another. What is responsible? Humanities and natural science belong together. /Balck: wissenschaft.htm/

Subjective Observations without Measuring Equipment

Whereas in many disciplines, the assessment and processing of observations or the science of experiences collected using the five senses were the focus, later data collection was carried out using more and more „objective“ measuring devices. Nightlong visual observations of the starry sky as done in the day of Copernicus or Galileo are rare nowadays; astrophysicists now usually use fully-automated tracking telescopes and camera systems.

Reddish /Reddish 1998/ wrote about the beginnings of astrophysics with the help of subjective visual observations:

»Various hand-held devices are used as detectors in dowsing. If the reader is tempted at this point to dismiss their use as inevitably too subjective, three matters should be borne in mind.

Firstly, in order to replace the subjective detector systems currently in use by one that eliminates the human element from the detection process, and that is one of the primary objectives of present research, it may be necessary to discover the nature of the field involved in dowsing. It is unlikely that this can be done without using the presently available detectors.

Secondly, it should not be forgotten that much valuable astronomy and astrophysics was carried out in the last two centuries and the first half of this using a very subjective detector system - the eye. The scientific community did not wait for the development of photographic and photoelectric detectors before seeking to understand the nature of the Universe.

Thirdly, every detector has a sensitivity threshold. For a stimulus above the threshold, the question arises as to whether the detector just detects its presence, or does more than that and measures its strength; and in the latter case how accurate is the measurement. The design and the analysis of results of experiments must take into account the limitations of the detectors. This is a common situation in experimental physics and it applies, neither more nor less, to dowsing interferometry.«

Although the quality and quantity of monitoring or measuring data in the 21st century is much greater than in the past, it should be noted that it was purely visual observations that led to a „new“ world view in which the Earth was perceived as a sphere, not the technically-advanced satellites of the 20th century.

Oftentimes, good observations (without the help of technical devices) of apparent abnormalities, human curiosity, patience and persistent debate of topics have led to results which are used as the basis of many scientific theories today. Extremely sophisticated instrumentation was rarely possible or necessary decades ago. For example, great investment was needed to build a particle accelerator to research elementary particles in order to gain answers and also to raise new questions in elementary particle physics.

Scientific Experiments and Consequences

The strict definition of the term science was first formed in the last two centuries through, among others, the statement of Max Planck

- »1. Every theory is verified through experimentation. If even a small deviation occurs, then the experiment is considered incomplete or wrong. Nature is the only reliable criterion!
2. The experiment must - when carried out properly and critically by an expert - lead to the same result every time and every place.«

In his book „Gedächtnis des Wassers, die Homöopathie und ein spektakulärer Fall von Wissenschaftszensur“, Schiff documented the mindset of „acknowledged“ scientists when dealing with „inconvenient“ experiments. Research done by J. Benveniste /Schiff 1997/ pg. 8

- »It cannot be; if it were so, it would have been discovered two hundred years ago.
It cannot be because it would negate all the scientific knowledge accumulated over the years and centuries.
It cannot be because it is not always reproducible.
It cannot be because there is no underlying theory.«

Max Planck /Planck/ pg. 22

»A new scientific truth does not gain acceptance by winning over its opponents but by waiting until the opponents eventually die out and the next generation grows up familiar with this new truth.«

Carl Friedrich von Weizsäcker /Weizsäcker/pg. 126

»A truth in science is almost always first suspected, then claimed, then debated and then proven. [...] Even later such a truth becomes classic, then apparently trivial, then someone discovers that it is problematic and eventually it becomes outdated. The individual who toppled the old truth with his own newly suspected, claimed, debated and proven truth usually gains a respect for how brilliant the old truth was and how it should not have been taken for granted.«

W.A. Tiller wrote /Tiller 1999a/:

»Today, the majority of the physics community is in a state of denial with respect to psychoenergetic phenomena.
The present model is so neat, powerful, and comfortable that many people feel it would be a shame to have to disturb it. However, evolution moves on, in spite of prevailing paradigms.«

Which experiment can deliver statements which reveal the truth about our world view? In this respect though, there is no absolute truth!

However, the reproducibility of results by Max Planck requires that all of the secondary conditions which could influence the outcome of the experiments must be known at the point when the question is asked. Only when all of these conditions are true for otherwise identical experiments, is it likely that reproducible results can be achieved.

Conclusion: empirical science is necessary even if it can

often only lead to qualitative results or none at all in the beginning.

The statement „it just didn't work again“ when considering the outcome of experiments is worthless; instead it should be „it generally doesn't work.“ Only one successful test is needed to be able to make a positive claim that something could work, in order to lead to the principle proof of existence. Every single observation is important and none should be categorically discarded.

Scientific Understanding of Biological Sensitivity using Other Senses

The assertion that humans have only five senses stems from earlier times. Nowadays, other influences are also known including a sensitivity to magnetic fields /Rocard 1996/, electromagnetic waves, acceleration, slope, infrared radiation, ultrasound /Oohashi 2000/ and others.

S.M. Block described the variety of possible sensory systems that have developed through the course of evolution.

/Block 1991/ page 2

» It has long been obvious that sensory modalities go well beyond the classic five human senses of hearing, sight, taste, smell, and touch. Living things not only sense sound, light, chemicals, and pressure, but also position, heat, gravity, acceleration, electrical and magnetic fields, and even the passage of time.«

/Block 1991/ page 3

» It turns out that the question of „optimality“ is ill posed. There are a number of reasons for this. First, and almost trivially, optimality supposes that a unique solution exists that maximizes the performance of a sensory system. In fact, there may well be multiple solutions to a sensory problem, any one of which achieves the desired level of perfection. The incredible natural variety of sensory systems reminds us that there are many ways to skin a cat. Second, there is no a priori reason to believe that optimality has been achieved...

...

Evolution doesn't really seek to optimize. It seeks to iterate, to ramify, and to compromise. The solutions found by evolution are neither unique nor perfect.

A corollary of this, therefore, is that: Sensory systems are not necessarily as good as they can be. They are just as good as they need to be.«

At the end of the middle ages, Leonardo da Vinci concerned himself with the mechanical characteristics of the human body. Much later, other researchers discovered the chemical characteristics. It is now time to deal with the information system.

/Zhang 2003/, /Laszlo 2005/

In the fields of neuroscience, energetic medicine, biophysics and even the orientational ability of migratory birds, research has yielded amazing facts in the past decades that cannot yet be found in the general textbooks of classical disciplines such as university physics courses and are therefore not introduced into the minds of the

otherwise well-informed experts.

Oftentimes, the „gut feeling“ of colleagues leads to the statement:

„How can that **work** ! “ They should really be saying „**How** can that work ? “

J.L. Oschman /Oschman 2000/ pg. 176 reported that the claims made by physicists regarding the supposedly unverifiable effects resulting from the thermal activity of radiation are not longer supportable.

»This physics/biology dilemma was resolved when careful research revealed that biological systems completely defy a simple and obvious logic: larger stimuli should produce larger responses. In living systems extremely weak fields may have potent effects, while there may be little or no response to strong fields. A turning point in the controversy came about when scientists from the prestigious Neurosciences Research Program examined the evidence, and concluded that:

„a striking range of biological interactions has been described in experiments where control procedures appear to have been adequately considered ...

The existence of biological effects of very weak electromagnetic fields suggests an extraordinarily efficient mechanism for detecting these fields and discriminating them from much higher levels of noise.

The underlying mechanisms must necessarily involve ever increasing numbers of elements in the sensing system, ordered in particular ways to form a cooperative organization and manifesting similar forms and levels of energy over long distances.“ (Adey & Bawin 1977)

This statement signaled the emergence of a new paradigm in biology that has led to extensive research and clinical investigation into the beneficial and harmful effects of electromagnetic fields. We now know that cells and tissues are highly non-linear, non-equilibrium, cooperative, and coherent systems, capable of responding to very specific ‘windows’ . . . in terms of frequency and intensity (Adey 1990).«

Which types of modern measuring technology are available to researches today?

Electrical and magnetic signals as well as oxygen concentration in the brain can be measured using EEG, FMRT, PET, SQUID.

ElectroEncephaloGraphy,
Functional MagneticResonanceTomography,
PositronEmissionsTomography
SuperconductingQuantumInterferenceDevice

It has been known for many years, that an important frequency range in the brain lies between about 1 and 40 Hertz. The communication between the different areas of the brain and nerves takes place in this band (alpha, beta, gamma, delta ... waves). The strength of the magnetic field measured there using the SQUID-systems is about one

millionth of the Earth’s magnetic field.

There are two experiments which yielded surprising results that should be mentioned in this context: J. Zimmerman / Zimmerman 1990/ and A. Seto /Seto 1992/ were able to demonstrate that there are people who can generate an alternating magnetic field in the above-mentioned frequency range using their hands. The strength of these magnetic fields was measured at about one thousandth of the Earth’s magnetic field, i.e. a thousandfold stronger than the normal alternating field in the brain.

Only few people have the ability to generate such fields. It is conceivable that such „healers“ could influence the oscillations in the brain of a patient through the laying on of hands („therapeutic touch“).

At this time, researchers are discussing whether or not consciousness is housed solely in the brain. /Rivas 2006/ Even the hitherto strict separation of mind and matter is being discussed as well as the support for a quantum theory for physicists

(Keyword „Brain & Quantum“).

With his formula $e = mc^2$, Albert Einstein described the two different values of energy e and mass m as being interchangeable. Therefore, it is certainly valid to seek a connection between the mind and matter. Here are a few articles about this topic:

The Machine Brain and Properties of the Mind

/Becker 1990/

A new theory of the relationship of mind and matter,

/Bohm 1990/

Can Mind Affect Matter Via Active Information?

/Hiley 2005/

Quantum Approaches to Consciousness,

/Atmanspacher 2006/

Consciousness and Quantum Information Processing:

Uncovering the Foundation for a Medicine of Light.

/Curtis 2004/

Consciousness as a Sub-Quantum Phenomenon,

/Pearson 1997/

Under these assumptions, it is imaginable that humans or animals could also access fields of information. /Laszlo 2005/

Many experiments have been done to test the phenomenon of diving rods or pendulums and explain them in terms of empirical science. It was thereby shown that there are people who, after receiving introductory instruction on how to use the device, could detect different site qualities in the ground for example (/Purner 1988/).

The understandable and often repeated wish - not only from sceptics but from users themselves - „can’t this also be measured electronically?“ has not yet been fulfilled even though there have been many attempts to do so. Obviously, the human body possesses very delicate sensors that

1. work using a to-date unknown technology or
2. communicate with very weak or unknown types of waves or particles.

Personal experiences demonstrate that even we humans are sensitive without the use of tools such as diving rods or pendulums. We were just not taught it. A little training can reawaken these „dormant sensors“: natural method.

From this it follows that diving rods or pendulums are only aids and have nothing to do with the real question of sensitivity. They are like crutches that help you relearn to walk after a broken leg.

Research Work on Radiesthesia, Evidence of Varying Site Qualities

In order to explain the phenomenon of the diving rod, many scientists have endeavored to search for „classical“ effects using a good power of observation and the usual testing methods.

Biological receptors, primary:

- 1) Biosensors: animals /Harsch 1995/, plants, trees /Balck: baeume.htm/
- 2) Biosensor: human/Hartmann 1986/,Bachler 2006/ /Balck: evolution.htm/,Bergsmann 1990/ /Rohrbach 1996/
- Technological receptors, secondary effects:
- 3) Infrared detector /Endrös 1993/ S.88, /Burk www.oldenburk.de/
- 4) Microwave detector /Endrös 1993/ S.93
- 5) Exposure of photographic plates /Dobler 1934/, /Harthun/
- 6) Atmospheric electricity /Cody 1993/
- 7) VHF-reception disrupted /Hartmann 1986/
- 8) Standing waves at electronic amplifiers /Wüst 1934/, S. 445
- 9) Neutron-Effects /Langer 2003/

It has been suggested that the real cause of these effects cannot be observed directly but rather only indirectly. The radiation suspected here obviously interacts with the hereto-known waves in such a way that the measuring techniques register changes under favorable circumstances.

If a biological sensor (human) is used instead of a mechanical one, then the results can be criticized as possibly resulting from imagined effects. The flaw can be circumvented when, with the use of interference experiments, the presence of waves can be shown.

As is known in the field of optics, the overlapping of several light beams creates a specific pattern, i.e. groups of regularly-oriented fields of light and dark (diffraction patterns).

If a laser pointer is directed through a micromesh (thin silk fabric), the pattern of the transmitted laser beam onto an opposing wall is divided into many small points (Fig. 02). The arrangement of these points (positions) reveals important information concerning the wavelength of the laser beam as well as geometrical characteristics of the mesh (spacing, alignment of the silk threads to each other, symmetry). Since the arrangement of the points in the image follows a rule, it can be resolved whether or not the positions determined by an inexperienced person can be plausible.

The fact that a test person has or has not seen the light is statistically far less important than the account of the positions in the diffraction pattern. A careless and imprecise reading or even a fraudulent (imagined) one can be exposed using the interference experiment without the need for objective measurement devices to determine the positions of the points.

If it is possible to change the diffraction pattern through the use of physically measurable parameters such as magnetic field, temperature, air composition and so on, then the experiment and the verified effects of it are even more convincing from a scientific standpoint.



Fig. 02: Laser light penetrates a thin silk cloth. An easily-seen, complex diffraction pattern is generated at a few meters distance (interference image). The positions of the points and their light distribution make a statement about the geometry of the mesh and threads of the cloth as well as the symmetry of the material possible. A graphical manipulation of the position of a point would immediately expose a mistake if the symmetry were to be damaged.

/Balck: gitter-beugung.htm/

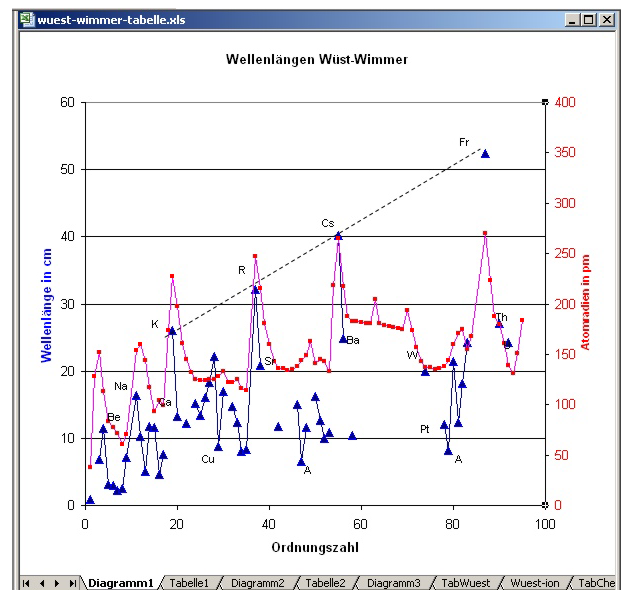


Fig. 03: Wüst und Wimmer determined characteristic wavelengths for the elements of the periodic table in 1934 (blue). The curves of the atomic radii (red) show a certain similarity at least at the beginning of a period of the alkali metals (red curve)

/Balck: wuest-wimmer.htm/

Wüst und Wimmer carried out exceptional preliminary work in this field in the 1930s. Both scientists determined characteristic wavelengths for the elements of the periodic table. The result leads to the assumptions that these wavelengths can be modulated with the ionization energy or the atomic radii. (Fig. 03)/Wüst-Wimmer 1934/ Researchers at observatories in Edinburgh, Scotland and Wellington, New Zealand acted as diviners to systematically determine the seasonal movement of an interference pattern for three years. They demonstrated that over the course of the year, the readings for a selected spacing fluctuated between two states and in such a way that the differences between the northern and southern hemispheres ran opposite to one another. (Fig. 04) /Reddish 1998/ /Dodd 2002/

Interference and Other Wave Experiments

- 1) Geometric shapes (cuboids, cylinders ... double-slit ...) generate interferences, „diffraction patterns“
/Balck: beugungsbilder.htm/, /Jennison 1995/,
/Reddish 1995 und 1998/, /Dodd 2002/,
/Neumann 2003/
- 2) Wavelengths in the ranges from millimeters to decimeters
/Wüst 1934/, /Busscher 1985, 1995, 2002/,
/Dobler 1939/ pg. 30, /Rohrbach 1997/

- 3) Waves penetrate many materials, even metals, reaching several hundred meters beneath the Earth's surface /Balck: mensa.htm, strahlbreite.htm/, they can be blocked using fine-porous materials such as foam glass or corkboards or magnetic fields /Balck: abschirmung.htm, ausbreitung.htm/ /Lüdeling 2006/, /Rohrbach 1997/
- 4) Broadening is usually linear,
/Balck: mensa.htm, strahlbreite.htm/, /Wüst 1936/
- 5) Waves contain information about the material (characteristic wavelength(s))
/Balck: nosode.htm/, /Wüst 1935/, /Busscher 2002/ Charts for the wavelengths of atoms in the periodic table; wavelengths are strongly temperature dependent /Wüst 1934/
- 6) „Diffraction patterns“ can be changed, reflected or modulated through the addition of a magnetic field /Balck: kuehlwasser.htm/, /Wüst 1936/
- 7) Interference patterns are dependent upon the season; opposing changes are observed in the northern and southern hemispheres /Dodd 2002/, intensity also varies with the time of day
- 8) Wave propagation is not possible in a vacuum, nitrogen or carbon dioxide, oxygen is required /Balck: ausbreitung.htm/, /Wüst 1936/ /Wesselborg 1991/
- 9) Waves can be influenced by acoustic or electromagnetic waves (even colored light). /Wüst 1936/, /Busscher 2002/ pg. 73

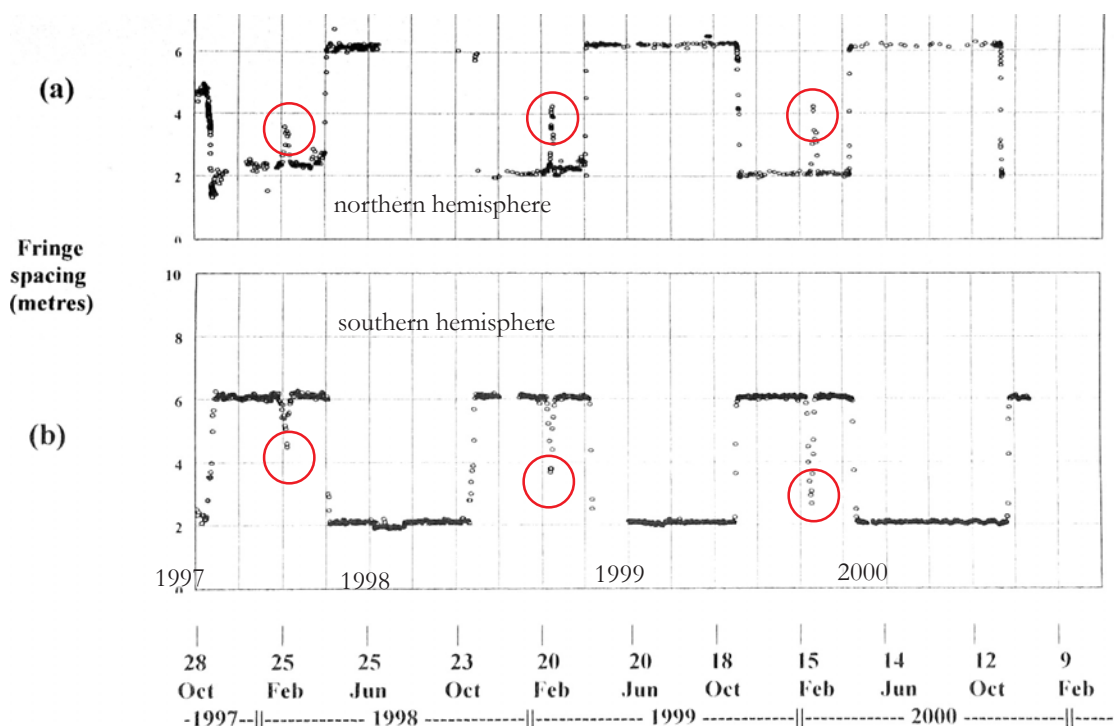


Fig. 04: Interference experiments in the northern and southern hemispheres (below) of the Earth. A characteristic length in the interference diagram changes in the course of the year, about every half-year from around 2 to about 6 meters, in such a way that the values in the two hemispheres are opposite to one another. Around March, a short-term change occurs which then quickly reverses again (red circles).

Reproduced by permission of the Royal Society of Edinburgh from Transactions of the Royal Society of Edinburgh: Earth Sciences Vol 93, (2002), pp 95-99 /Dodd 2002/ /Balck: reddish.htm/

- 10) Propagation speed in the air is in the range of 10 m/s, /Busscher 1985/ pg. 1483 greater in the ground /Balck: bahnhof-unter.htm/
- 11) They are not electromagnetic waves /Dodd 2002/, /Busscher 1985/, pg. 1480
- 12) Resonance effect exist between similar materials. / Balck: nosode.htm/, /Voll/ /Kellner 2009/
- 13) The radiation pressure can be measured using a microradiometer. /Dobler 1939/ pg. 26
- 14) Standing waves were detected using an amplifier / Wüst 1934/ pg. 445

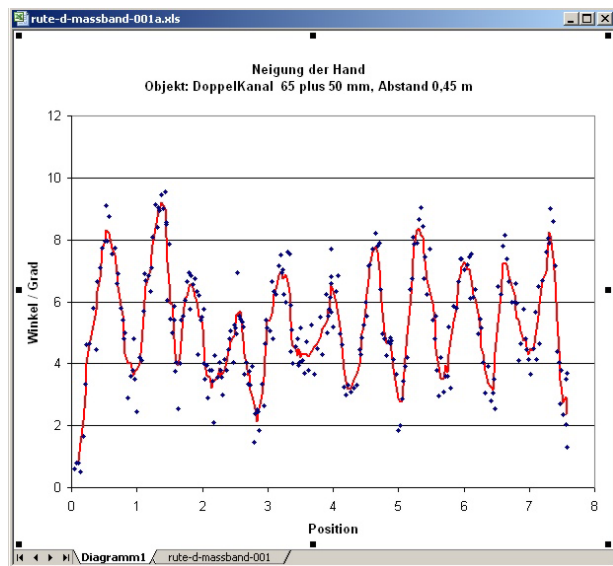


Fig. 05: Interference experiment: A box-shaped profile is in the ground at the 3.7 m position. When the diviner walks across it, he senses a symmetrical and periodic pattern (diffraction pattern). The electronic recording of the angle of his hand as a function of the position in meters shows a change in angle of a few degrees. This suggests that an obvious proportional connection between his hand and the strength of the perceptible stimulation exists. /Balck: handhabung.htm und comunetti.htm/

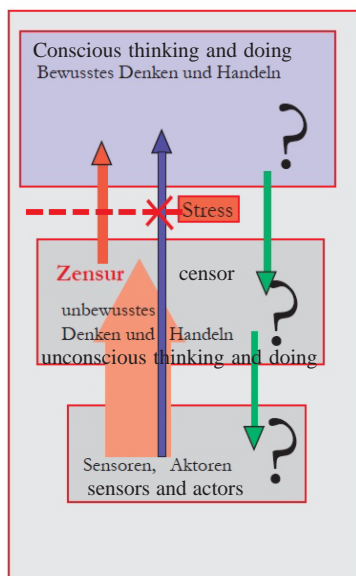
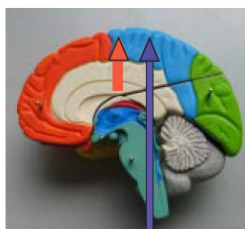


Fig. 06: Natural method, a direct connection between the sensors and the consciousness exists. However, stress can obstruct this canal.



Subconscious and Conscious, the Divining Rod as an Aid

The structures of our brains are very complex in a great many ways, for example with regard to philosophical, psychic or physical parameters. Will we ever be able to understand these connections?

To this end, a schematic representation is used to help illustrate the differences between the natural method and the classical divining rod method.

It would be simple if we could consciously ask our sensors. However, as with a modern computer, the user program cannot access the keyboard or printer interface directly. This takes care of the „all-knowing“ operating system. In order to find out in which rhythm the user types, for example, a direct access must be possible.

If a virus is present in the system, the user may not be aware of it at first. It may possibly never be seen. Yet a reduced processing speed could signal to the user that something is „not right.“

Now, when the terms „user program“ and „operating system“ are replaced by „consciousness“ and „subconscious“, the path of sensory information to the user becomes clear. Either the reactivation of the direct connection downward is achieved through training (natural method) or the activity level and therewith the „attentiveness“ of the operating system is determined indirectly using, for example, the control of balance. When balancing an L-rod, the control accuracy depends on the strength of the disturbance. (Fig. 05), (Fig. 06, 07)

A rod under tension is held in a labile balance state. However, the slightest inattentiveness results in a strong reaction just like a finger at the trigger of a gun.

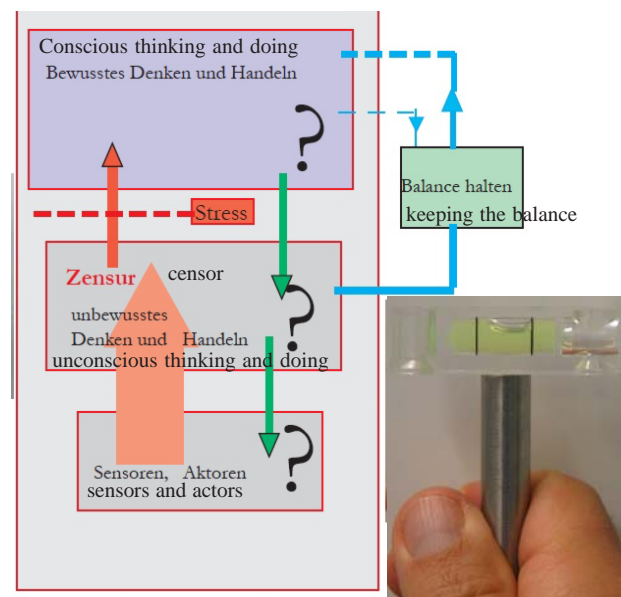


Fig. 07: Use of aids: Balancing with a divining rod or pendulum (indicated with a water level). Through the precision of the control process steered by the subconscious, it is possible to determine how much concentration is available in the brain. The deviation from the ideal is a measure for the resulting source of interference. /Balck: methode.htm/

Divining, Interpretation of the Results, the Missing Components

In divining, one distinguishes between different processes in order to pick out the signal of the sought-after object from the multitude.

1. Divining without a particular goal:
Observant walking and paying attention to distinctive features.
2. Mental Divining:
Visualizing the object.
3. Use of resonance effects:
A reference probe is used on the rod (nosode). To become attuned to the object it often suffices to carry the reference sample in the hand or on the body.
4. Lecher antenna with tunable resonance length.
Specification of wavelengths to the characteristic properties of the sample.
5. Natural methods without aids,
a process that animals presumably use.
Various qualities can be sensed at different parts of the head or body. For example, a quartzous vein generates a different sensory impression than an electric cable or flowing underground water. The sensory impression contains directional information, like hearing in stereo, so that elongated structures (striations or corners) can be followed at walking pace. /Balck: kanten-dektor.htm/
6. Many authors and users describe remote divining.
Photographs, maps, floorplans and even images on a computer screen are used to suggest the supposed position of an object in the picture, not in the landscape itself, to the brain and wait for an answer. Here, the picture acts as positional aid to the seeker when, for example, an index finger or pendulum scans over the image.
/Ross 1990/, /Bird 1979/, /Lonegren 1993/
/Kellner: www.resonanzortung.de/, /Keen 2005/
/Röken 2009/
Analysis of photographs: /Keen 2005/ and microleptons, treasure-hunting experiment on the Cocos Island using Google areal photographs. ZDF broadcast, and corresponding patent /Patent/
»Abstract. The inventive method comprises the following steps: microlepton radiation from studied objects is visualized by means of photographic printing on a data carrier of a negative containing an exposed image; and anomalies of said image are detected on the data carrier, whereby said anomalies are identified with the objects of interest.
Photographic printing is performed through an optical filter representing at least two transparent plates, whereby a layer of the object of interest is placed there between. The thickness of the layer of the object of interest is selected in such a way that visible light could pass through the optical filter.«

Obviously, a part of this process cannot be explained using the assumption that the objects are activated by waves and thereby shine back with their characteristic wavelengths as with fluorescence.

Where are the missing pieces for the explanation of the physical phenomena?

Similar unexplained abilities exist in animals. Bees are radiation seekers; a premium honey location has characteristic locational factors. Nesting, swarming and drone gathering sites are also located in areas with particular, perceptible characteristics. /Mauthe 1998/
Mauthe describes an experiment with a queen bee caged by a captive balloon (Diplomarbeit Universität Stuttgart-Hohenheim): page 65

»It is astounding to see how the drones steer toward the queen trapped in the balloon and how they leave as soon as the balloon is removed from the area of the high-influential crossing.« . . .

»Addition evidence that it is not the chemical substance of feromones, i.e. messenger materials, that attract the drones to the drone gathering place is demonstrated when the drones fly toward a bottle suspended from the balloon containing the heads of queens stored in alcohol. The drone can detect the radiation characteristics of the queens' information specifically.«

Lübecker Nachrichten, März 2009

www.zeit-fuer-tiere.info/Downloads/200902_0500.pdf

»Cat finds lost family

Moscow - In Siberia a cat travelled 70 kilometers in order to find his family which had moved. The cat, Bojan, escaped during the move reports his owner Sergej Minskich. We searched for him for a long time but could not find him. The children were very sad as the family moved without Bojan. Three months later, the cat was at their front door, at their home in the third floor of an apartment building 70 kilometers away.«

Many researchers have investigated the orientational abilities of migratory birds. An overview of the state of this research can be found in /Wiltshko 2003/.

It is supposed that birds use magnetic information such as direction and size of the Earth's fields as well as position of the sun and landmarks. A particular bird, the carrier pigeon, has been bred to find its way back home independently after having been release at an unknown location.

A reporter from the „Helsingin Sannomat“ newspaper covered a story about the Lapps and their life above the Arctic Circle. After accompanying the Lapps through the wilderness for several days, he asked them „there are no paths or significant landmarks, what do you do when you get lost?“ The answer they gave was „lapidary“; then we just go home!!

/Becker 1991a/ page 104

described the research done by W.T. Keeton

»He equipped the pigeons with translucent contact lenses that allowed light but not polarized light or visual images to penetrate them. When the pigeons still found their way home, he concluded that they must possess a magnetic sensory system.

He released his pigeons in the Adirondack Mountains in the state of New York about one hundred miles linear distance from Cornell. The pigeons with the

contact lenses found their way home just as well as those without. However, they did make one detour. They did not take the direct route to Cornell but first flew west far over Lake Ontario. It is known that pigeons do not fly over large open bodies of water, but they could not see it. At some point they turned south and flew directly toward Cornell where they arrived somewhat delayed compared with their counterparts. Keeton thought that they perhaps flew west until they crossed a line in the Earth's magnetic field that corresponded to a line dissecting Cornell.«

The clue about the lines in the magnetic field seems to indicate a informational field.

Some of these effects show that an additional mechanism for the orientation or „information canal“ must exist with regard to the observations of the drones and the cat in particular.

Information Canal, Morphic Fields

In order to explain the ability of animals, a mechanism which works like a search engine in the internet must be postulated. A question is asked and an answer obtained in the form of yes/no or possibly an even more quantified one. At the same time, it would be necessary to answer a question with regard to a geometric direction. (navigator?) In the past several years, various procedures have been established in the field of energetic medicine or so-called „informational medicine“ with which it should be possible to transfer information to the patients and thereby influence the course of medical conditions. (Homeopathy /Davenas 1988/, additional keywords: bioresonance, radionic)

Conversely, it is also possible to attain information from patients contact-free using only very small amounts of substances (drops of blood which can even be dried out on a paper tissue). /Aschoff 1989/, /Kopschina 2001/

It even seems possible to save information in liquids (water). /Smith 2004/

Photographs of dried water droplets are available at www.weltimtropfen.de. Professor Bernd Kröplin from the University of Stuttgart discovered that the previous history of the water reveals itself in patterns during the drying process. From this it follows that the molecules in the liquid have combined to form information-rich clusters.

Rupert Sheldrake delivered an essential component with his postulated „morphic fields.“. These fields, he presumes, contain information which can be accessed by lifeforms. He bases this on previous scientific work carried out in the first quarter of the 20th century by H. Spemann, A. Gurwitsch and P. Weiss. /Sheldrake 1993/ page 99.

The necessity for the assumption of these fields was illustrated by him using the example of the behavior of titmice which, between 1935 and 1947, learned to open milk bottles in search of food. Even after a break during World War II when there were practically no more bottles, cases of milk theft began shortly after bottles were being used again after 1947 in Holland. Hardly any titmice who had learned to open the bottles before the war were still alive at that time. /Sheldrake 1993/ page 177

There are many parallels to this case in the animal world, for example with termites (page 228) and the behavior of

swarms (page 232) and rats (page 175).

About the evolution of morphic fields he wrote the following (page 299):

»Physicists have, naturally enough, focussed their attention on the known fields of physics: These are fields at the opposite ends of the scale of magnitude: on the one hand the fields of universal extent, gravitational and electro-magnetic, and on the other hand the submicroscopic fields of subatomic particles, giving rise to the „strong force“ and the „weak force.“ So far, physicists have hardly begun to consider the idea of fields of systems that lie between these extremes, partly for the simple reason that the natural sciences are divided into departments: the study of molecules and crystals is the province not of physicists, but of chemists, crystallographers, biochemists, and molecular biologists; living organisms lie in the realm of biology, and minds in psychology.

In these areas the old atomistic philosophy is usually implicit: minds should be reducible to brains, brains and all other living systems to physics and chemistry, and chemistry itself should ultimately be reducible to the properties of atoms and subatomic particles and be fully explicable in terms of quantum theory. These reductions have not in fact proved possible, but the hope is that they will be achieved at some time in the future. This hope depends on several implicit assumptions.

One is that physicists know about all the fundamental fields of nature. Consequently, chemists, crystallographers, biologists, and psychologists do not usually feel free to postulate new kinds of fundamental fields, because fundamental field theory is the province of physics. But physicists themselves have felt no such restraint; below the level of the atom, fields have proliferated prodigiously. Each kind of particle -and now scores have been recognized- has its own matter field.«

„Informational Fields, Questions of Belief, Ritual Places, Inclusion of an Understanding of Religions

In our language there are many phrases which describe things which we believe must exist but which are not apparent to everyone.

Only few people have gathered experiences with the following: angels, holy ghost, trolls, gnomes, fairies. Should these all be pigeonholed as fantasies or fairytales or should they be treated as an indication for the existence of morphic fields?

During the investigation of „ritual places“, such as the about 4,000 year old Menhire at the north edge of the Harz Mountains, line-like structures were discovered which consisted of lines connecting similar objects. GPS-technology makes it possible to record the position of sensed lines in an objective way and later substantiate this link in the office by calculating connection lines.

/Balck: heimburg-blankenbourg.htm/, and

/Balck: heimburg-blankenbourg-gg-003.kmz/ (aerial view)

Perceptible patterns can be found in many churches with a central point often located in the rear middle of the altar. /Balck: kirchen.htm/, /Preiß 2001/, /Purner 1988/, /Bongart 1998/ /Kerner 2004/ pg. 27

»With the Christianization, force fields infiltrated the churches. In a conscious manner, the veins were built under the churches and the altars were usually positioned above them. The penetration points of the veins through the church walls were often marked with a painted cross nearby. Many times, the plaster on the walls is cracked in these areas. The church architects used a special scheme from the neighboring Bregenz Forest in order to distinguish their church from others through the network of veins. These church structures can be verified back as far as the Gothic period.«

Communication lines also exist through holy sites and stones. Experimental investigation: a collection of bricks with the same magnetization (orientation to the Earth's field in the kiln) is divided into two even piles and separated by a great distance (kilometers) from one another - with opposite orientations. If information is set up near one pile, it can be sensed at the other. /Söder 1990/, /Wesselborg 1991/ Confirmation of the experiment by W. Heidrich, Darmstadt (personal communication)

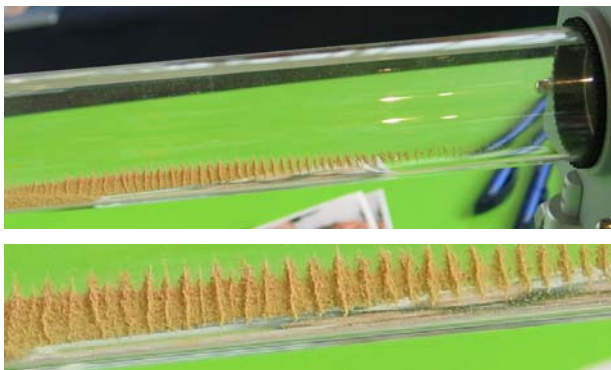


Fig. 08: Fine cork particle and standing waves in an acoustic pipe, stimulation by a speaker to the right side. The fine particle remain where the air moves the least. Sharp-edged piles are formed. When the speaker is turned off and the pipe agitated, the piles fall apart, the particles disperse again.

/Balck: stehende-welle.htm/



Fig. 09: A transparent glass pane is illuminated. The light become visible in places where cracks exist. /Balck: triftstrasse.htm/

Grids as energy sources

There have been many investigations with regard to grids. Some are stationary for a certain period of time while others shift periodically with the course of Earth's rotation or tides. /Hartmann 1986/, /John 1998/pg. 73

The structure of the grids is reminiscent of lattice planes in crystallography. These are imaginary groups of parallel planes which consist of similarly oriented atomic structures in complex crystal lattices. Highly symmetrical planes exist, for example the planes parallel to the cube edges or surface diagonals in the case of cubic structures. These have a differential angle of 45 degrees to one another.

/Balck: gitternetz.htm/

The ionosphere and the spatially and temporally unconstant magnetic field of the Earth appears to be a prerequisite for the propagation of fields similar to standing waves.

Schumann /Schumann 1952/ found electromagnetic oscillations in the low-frequency range and ascribed this frequency to the relation between the speed of light and the Earth's circumference: $300,000 \text{ km/s} / 40,000 \text{ km} = 7.5 \text{ Hz}$, assuming that the ionosphere increases upward without expansion. This is in the range of the frequency of brain waves. The ionosphere forms a resonator which is constantly supplied with energy through lightning in thunderstorms for example.

In acoustics, the phrase standing wave is well-known and can be made visible in a horizontal, glass organ pipe using fine cork particles. In the pipe, different zones of higher (troughs) or lower (nodes) sound volume exist in succession. The cork particles are moved using sound waves and remain in the areas where the oscillation is very low (nodes). This results in very narrow piles of fine cork. (Fig. 08)

This process represents the position-dependence of volume, only exactly inversely. In the wide oscillation troughs where it is loud, the fine particles do not come to rest, they leave these areas and remain in the small nodes where the oscillation energy is lowest.

Some of the perceptible grids have similar narrow „sharp-edged“ lines. Is this an indication that the grids consist of (invisible) particles? Are they magnetic antinodes?

/Tiller 1999b/

As can be observed in „shielding or dejamming experiments,“ researchers first try to locate from which direction the radiation originates. Some sort of metal object (copper, iron) is then brought close to a nodal point in the grid and pounded strongly on the ground.

In an acoustic pipe, such a barrier would dampen the oscillation amplitude like the additional masses attached to the ends of high-voltage power lines between the masts. This observation leads to the assumption that energy for perceptible effects is supplied by grids.

Many bodies reemit this energy through the surface geometry because they reflect, scatter or, as in fluorescence in the field of optics because of the energetically higher excitation, reflect in their characteristic frequency range like a luminescent material. Structures (geological fissures) can also emit radiation when they, similar to a crack in a window, reflect light in such a way that it gets focussed by

an otherwise „invisible“ glass pane and becomes visible. (Fig. 09)

Psi-Tracking, Resonance Positioning

According to research carried out by N.O. Jacobsen and J.A. Tellefsen /Jacobsen 1994/ it should be possible to mentally generate tracks which can then be detected by diviners. Trackers and track layers could, but must not necessarily, be the same person. /Keen 2005/pg. 206

In a variety of tests, researchers have shown that hidden objects can be recovered in this way when a person acting as a „sender“ lays a track from a „transmission location“ by thinking about the sought item intensely. After a sufficient „thought time“ of several minutes, a track between the „transmission location“ and the position of the object is thought to be established which can then be followed by a sensitive person in the customary way. Even if the „sender“ leaves the location, the track should remain for a certain period of time.

Does this deal with the same process used by carrier pigeons, migratory birds, salmon and other animals to find their destinations? Sheldrake reports of experiments carried out using carrier pigeons in which the target was brought to an unknown location. /Dürr 1997/ pg. 38

The author repeated the Jacobsen/Tellefsen experiment with several modifications. Instead of a hidden object, the goal was a known object in the closer or further vicinity: for example, one's own car, a lighthouse on Grand Canary or the Capitol in Washington.

With the help of a GPS-receiver, the course of the experiment could be logged with scientific objectivity including the date and time. The subsequent review using a computer in the office often resulted in a good correlation between the position of the „found“ track and the calculated straight-line to the object.

The following table (GPS-log) shows that it was possible to pace off the virtual track in two direction within about five minutes (16:35:41 to 16:31:19).

The laying out („sending“) of the second track took about 30 seconds according to the log. (Fig. 10, 11)

GPS-log: Location 025: Direction of Maspalomas, Grand Canary
 025 23-MAI-09 16:31:19 N51 49 20.3 E10 21 35.3 564 m
 026 23-MAI-09 16:31:59 N51 49 20.1 E10 21 34.7 565 m
 027 23-MAI-09 16:32:08 N51 49 19.9 E10 21 34.6 565 m
 028 23-MAI-09 16:32:17 N51 49 19.6 E10 21 34.2 566 m
 029 23-MAI-09 16:32:26 N51 49 19.4 E10 21 33.8 566 m
 030 23-MAI-09 16:32:36 N51 49 19.1 E10 21 33.4 565 m
 031 23-MAI-09 16:32:46 N51 49 18.7 E10 21 32.9 566 m
 032 23-MAI-09 16:32:54 N51 49 18.5 E10 21 32.7 565 m
 Goal Maspalomas N27 44 34.5 W15 34 57.7 Point 025 to Maspalomas distance 3,439 km straight line 229°

Location 033: Direction of Cala Rajada, Majorca
 033 23-MAI-09 16:33:45 N51 49 19.2 E10 21 35.0 569 m
 034 23-MAI-09 16:34:45 N51 49 18.6 E10 21 34.8 567 m
 035 23-MAI-09 16:34:56 N51 49 18.4 E10 21 34.7 566 m
 036 23-MAI-09 16:35:08 N51 49 17.9 E10 21 34.5 566 m
 037 23-MAI-09 16:35:17 N51 49 17.6 E10 21 34.3 566 m
 038 23-MAI-09 16:35:25 N51 49 17.3 E10 21 34.1 567 m
 039 23-MAI-09 16:35:34 N51 49 17.0 E10 21 33.9 567 m
 040 23-MAI-09 16:35:41 N51 49 16.7 E10 21 33.7 567 m
 Goal Majorca N39 42 34.6 E3 27 48.4 Point 033 to Majorca distance 1,448 km straight line 204°

The Pattern of Potential Tracks

Experiments at short distances have shown that there is more than just one perceptible connecting line. There is in fact a series of two-dimensional membrane oscillations (orchestral kettledrum) oriented away from the goal (center) and another located in circles around the object. For each of these oscillation it must be assumed that neighboring antinodes in the standing wave have opposing phases. This leads to the overlap of antinodes between the two systems causing strengthening or weakening. / Balck: nosode.htm psi-ringabstand.htm/ (Fig. 12)

The distance of the rings from the goal seems to follow a succession with quadratic dependence (about 1, 4, 9, 16, 25, 36 etc.). This quadratic dependence is surely a key for physicists to find the tracks to the fields. Diffraction patterns, standing waves or consequence of quantized effects?



Fig. 10: Psi-tracking in the direction of Grand Canary and Majorca
 green: calculated linear distance to Canary; blue: to Majorca
 black: automatic GPS-log of the path.
 green points with numbers: set markings on the determined path.
 The laying out and following in both direction lasted less than **five minutes**. According to the GPS-log, the semicircular search paths begin at the start points 025 and 033 and lead to the location of the track at 026 and 034. From here, the track was followed further. (see following table) /Balck: psi-track-017.htm/

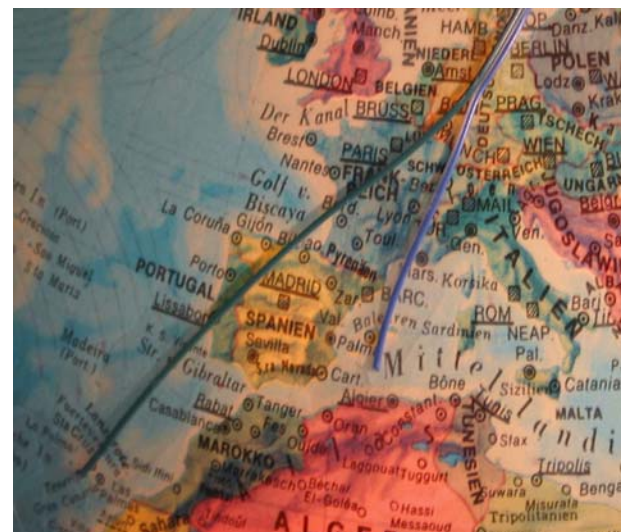


Fig. 11: The two linear distances on the globe.

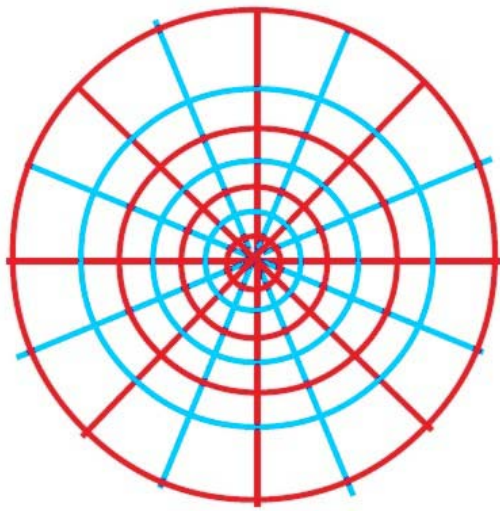


Fig. 12: The perceptible pattern has the properties of a two-dimensional membrane oscillation, red/blue different phases. The diameter of the circles increases according to a quadratic series outwards. At cross points with different colors, the sum of the two oscillations is very small, at the same colors it is particularly large.
/Balck: nosode.htm und bernstein-eis-resonanz.htm/

If these regular patterns are noticed when nearing the goal, then the approximate distance to the goal can be estimated. The closer one gets to the goal, the more frequently one finds such circular rings.

Applications

A number of companies use this method to, for example, find explosives. The detection sensitivity appears to be very large which means that at close distances a great amount leads to „blinding...“
(<http://en.wikipedia.org/wiki/Sniffex>)

The Cooling Water Experiment

Detecting water flowing underground is one of the challenges dealt with by every diviner. What exactly is a „water vein“ and what does one feel when sensing? What does the perceptible „image“ look like?

Several years ago, a cooling water system located near the desk of a researcher presented itself as an unintentional research object. The perceptible effects of two vertical 50 mm plastic pipes in an installation duct caused his blood pressure to increase by 20 points as was determined after moving into a different building.

The two pipes, which ran through three stories of the building, generated a „radiation pattern“ in the hallways and rooms resembling the pages of an open book set vertically. /Balck: kuehlwasser.htm/ (Fig. 13)

The pattern is comparable to that of a pipeline laid in the ground which consists of starting and cancellation zones. However, the pattern is turned 90 degrees into the horizontal. In „good“ weather conditions, the perceptible offshoots of this pattern reach more than 20 meters through the building as far as the parking lot.

Two copper pipes were attached to the outside of the pipelines and electrically connected with one another so that they formed a conductor loop.

It turns out that the position of the perceptible lines of the pattern can be changed by conducting an electrical current



Fig. 13: In the center of the picture are the two pipes (blue sleeves). The perceptible pattern is shown with colored bands.
/Balck: kuehlwasser.htm/

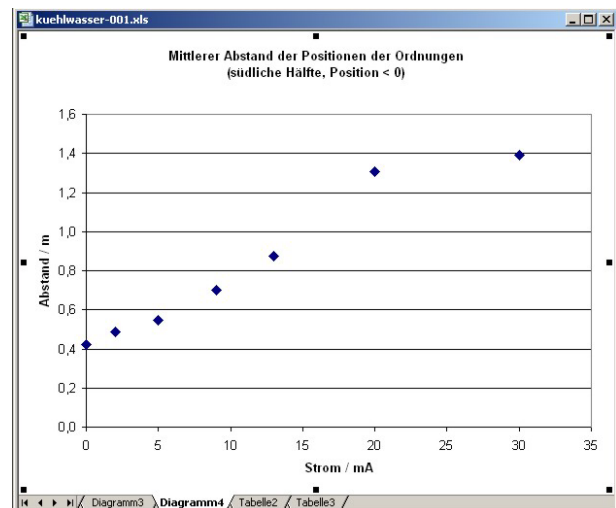


Fig. 14: Increasing current leads to a more open pattern. The distance between the two stripes (at about 5 meters distance from the pipes) increases from 0.4 to 1.4 meters. /Balck: kuehlwasser.htm/

through this loop. In a selected section of the pattern, it can be seen that raising the direct current with one polarity increases the distance between the lines while the opposite polarity brings the lines closer together. The calculated magnetic field of the conductor loop in the immediate vicinity of the pipeline amounts to about a ten millionth of the Earth's field. At about five meters distance it averages about a 10 millionth (eins hiervon muss falsch sein oder?) of the Earth's magnetic field (comparable with the magnetic field in the brain) (Fig. 14).

Now, if an alternating current in the range of EEG brain frequencies is conducted, differing perceptible effects arise depending upon the frequency. A permanent change of the frequency (sweep) appears to affect balance.

The influence of the speed of the water flow, the size and direction of the electrical currents to one another have yet to be investigated. This deals with a laboratory experiment that gets by without the hard to define term „water vein.“ Since the human acts only as a position-dependent detector and the geometric location determined by him can be detected and logged using a scientifically-accepted method (measuring tape), this experiment is without the flaw that it deals with an imaginary effect. The externally adjustable physical parameter of the electric current adds another objective factor to the experiment.

In this test arrangement, the influence of fatigue by the sensitive person can be investigated and whether or not the perceived patterns result simultaneously with the adjustment of the external parameters.

From a physical point of view this experiment presents a multitude of starting points to research the source of the pattern. The positioning of the pipes vertically is an improved modification of the „barn experiment“ by H.-D. Betz which leads to much greater significance./Betz 1990/

Modern Radiesthesia from a Scientific Standpoint

Many effects of radiesthesia, such as remote divining, psi-tracking etc are being looked into due to a change in the mindset of a number of recognized scientists who for some time have called for an expansion of our world view through the introduction of additional dimensions / Volkamer 2009/ /Tiller 1999b/, B. Heim /Ludwiger// Sheldrake 1993/. /Laslo 2005/, /Keen 2005/

An important building block for the explanation is the introduction of an informational field. This leads to an explanation of the hitherto inexplicable phenomena in animals.

In order to be able to investigate the characteristics of this field using physical means, sophisticated ideas for new experiments and theories utilizing sensitive diviners or animals as primary observers are needed.

Wüst and Wimmer /Wüst 1934/ carried out a pioneering test using expansion experiments which showed that through the removal of oxygen in the air or through the creation of „magnetic shielding levels“, the expansion of information can be hindered.

/Balck: ausbreitung.htm/, /Wesselborg 1991/

The similarity between the course of the ionization energy of the elements of the periodic table and the wavelengths determined by Wüst-Wimmer are an important lead.

The experiments carried out by astrophysicists in Scotland and New Zealand which dealt with the radiesthetically measured lengths in an interference experiment are particularly important

/Reddish 1998/, /Dodd 2002/. The short but regular differences of measured lengths during several days in March suggested the shadowing of a radiation source in the sky by the sun and indicated its approximate direction. The research concerning the subjects of water and electrical flows, resonance positioning or psi-tracking

/Balck: kuehlwasser.htm/

/Balck: nosode.htm, bernstein-resonanz/

/Keller: www.resonanzortung.de/

/Balck: psi-track-000.htm/

/Balck: psi-ringabstand.htm/

present a possibility to carry out laboratory experiments in which the physical parameters act as control factors for the test procedure. In this case, the fact that the resonance effects are amplified through stimulation with electrical, magnetic, electromagnetic or acoustic oscillation energy and the range is thereby increased is of particular importance! Since the frequency of the electromagnetic modulation of the cooling water pipe are in the range of brain waves, links can be made to the experiments of

neuroscientists.

In unexplainable traffic accidents, interference patterns can often exist parallel to the direction of travel. When driving at the proper speed, these patterns can be sensed subconsciously by the driver and stimulate an area of the brain leading to microsleep. /Balck: harzburg-ecker.htm/ With the use of electromagnetic interference sources (induction hot plates, DECT telephone, etc.) or ultrasound, people can be determined who are naturally sensitive with regard to radiesthesia /Balck: sens-test.htm/. Experience has shown that they amount to about 20% of the population. After taking the test they have the possibility to learn about their sensory ability and sharpen it through continued training. The locating of different site qualities is much easier for them afterwards.

Obviously, the presumed waves interact with the physically well-investigated waves in our environment. The quality of the site must therefore be taken into account, for example, through verification of only imaginary electrosensitivity. Double-blind studies, which do not consider this, have only limited usefulness. /N. Harthun 2008/

The statement made by the electrical and electronic industry that magnetism or electromagnetic fields are not perceptible is widespread but incorrect. A large amount of scientific research supports the existence of receptors for magnetic fields in animals as well as humans /Frentzel-Beyme 2009/ and the influence of these fields on the DNA synthesis, for example /Liboff 1984/. To date, this pioneering work has been cited almost 250 times in other research projects. The conclusion that there are no influences made using control investigations is completely useless. They have only statistical significance if they are carried out using all creatures of this kind. Just one hypersensitive person brings the proof of efficacy.

In the case of „Wüst waves“ is it a case of scalar waves? /Meyl 2002/, /Oschman 2009/ pg. 156. For some time, researchers have strived toward a general acknowledgement of scalar waves in the scientific community and therewith deduced further consequences from the definition of magnetic vector potentials. This way of thinking is however often viewed as pseudo-scientific. Still, skepticism exists whether classical electrodynamics, with the hitherto interpretation of vector potential, is correct when trying to explain the Aharonov-Bohm effect for example. The vector potential is a mathematical dimension which has led to the simplification of the calculation of magnetic fields. However, it has become obvious that there is also a physically measurable effect associated with it. /Aharonov 1959/, /Imry 1989/

This would require reassessment of the Maxwell equation. In reference to this, the magnetic antinodes postulated by W. Tiller cannot be ignored. /Tiller 1999b/. In his experiments, he showed that the sign of an additional magnetic field determines whether or not an effect can be detected. Meanwhile, experiments have confirmed the existence of magnetic antinodes /Morris 2009/

Experiments carried out by Friedrich Engel from Hameln dealing with „disturbing“ objects (counterclockwise vibrations) which can be changed into less disruptive ones

(clockwise vibrations) through repeated (loud) percussion sound unlikely at first. The author convinced himself of the effectivity of the procedure in several cases and even tried it out himself. Peter Silbernagel /www.quellenklang.de/ learned this process and taught it to F. Engel.

The results allow for the most bold conjecture that this could be a matter of the agglomeration of (invisible?) particles which can be removed this way or changed in their (magnetic?) arrangement.

Similarly, the results of the refined weighing experiment done by K. Volkamer must be considered. Here it was shown that in some cases the weight of certain bodies are not constant because unseeable particles settle upon them. Volkamer supposes that this deals with dark matter, a form of material whose existence is presently only postulated from an astrophysical standpoint. /Volkamer 2003/ The research done by Straniak /Straniak 1936/ should also be mentioned in this context. His results concerning the directionally-dependent transmissibility of materials are an important key to unlocking the solution to this problem. A combination of all these facts increases the chances to bring together radiesthesia and science considerably. Humans are in demand as sensors again. In the past, before the reductionist spirit of atomism /Sheldrake 1993/ pg. 363 took root, the simple sense or pure perception often led to new scientific findings.

The complexity of the described possibilities in the radiesthesia shows why in the past, even in 1935 during the time of the excellent work carried out by Wüst und Wimmer, there was hardly any chance of attaining the support of scientists in other fields to solve the problem. Modern quantum physics, neuroscience and highly sensitive computer-supported measuring techniques with imaging processes, for example the functional magnetic resonance tomography in the brain, are promising tools to transdisciplinarily unlock the phenomenon of radiesthesia.

Summary

Many unexplainable abilities of lifeforms to orient themselves on the one hand and the results of a great number of carefully conducted experiments in radiesthesia on the other, lead to questions from similar contexts whose answers do not lay well with the generally prevalent mindset in the field of physics.

Is an invisible material at work here? What is the physical background to morphic fields? Is it time for a paradigm shift? Natural science must finally open itself to these fringe areas.

Large-scale experiments are not necessary, just good ideas to expand our world view using the knowledge and experience gained through experiments in radiesthesia and orientation tests. Heim, Tiller und Volkamer have already carried out much preparatory work.

Ignoring experimental facts by the scientific community would lead to the suspicion of scientific censorship reminiscent of the Middle Ages.

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Dipl. Ing. Wolfgang Lampe from Clausthal-Zellerfeld was a good partner for discussion in theory and praxis.

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Especially the author thanks his granddaughter Lisa, as she had shown by her behaviour in her nursery some weeks after her birth the most important hint, that humans can distinguish between good and bad places without any aids. This was the stimulus for this work.

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