



Water

**A book about the phenomenal elixir
of life and its re-vitalisation**

Written by Gottfried Hilscher
for PENERGETIC INT. AG

Water

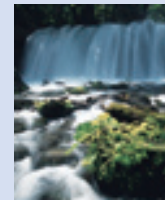
A book about the phenomenal elixir of life and
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CONTENTS



Water in macro and microcosms 4

Water - a phenomenal element 8

Atomic structure
Molecules in motion
Vital anomalies



A self-portrait of water 15

Snow flakes: An endless variety of shapes
Frozen water drops reveal a lot
Music makes water drops swing
Memory and thoughts in a water drop



Drinking water: number one food 26

The prescribed quality of drinking water
Risk evaluation of drinking water supply

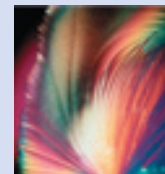
Water as information carrier 30

Homeopathy becomes explicable
No exchange of information without energy
Loss of vitality on the journey through the technological world



Energy without calories 36

The discovery of Wilhelm Reich
Invigorating information transfer



Penergetic technology promotes healthy life and growth 40

AQUAKAT brings vital information into tap water
Water - an ideal solvent once again
New insights into tap water
Medicinal water and other healing waters

Gottfried Hilscher

Water – A book about the phenomenal
elixir of life and its re-vitalisation

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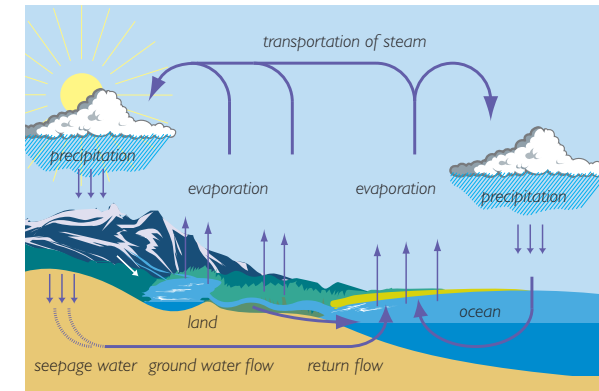


*Everything has sprung from water.
Everything is preserved by water.
Goethe's Faust, Part II*

Water in macro- and microcosms

Even today, we could not describe the meaning of water on earth more succinctly and appropriately. Goethe, the sensitive thinker and observer, was able to submerge himself in nature and he realised that water is the element that connects everything. It is correctly described as an "elixir of life". The earth's water cycle, kept in motion by the sun, marks the journey of water in the macrocosm. It includes all living things on earth and infuses them into the finest branches of the microcosm.

Approximately 48,000 cubic kilometres (km³) move through the cycle every year. This is equal to the volume of a cube with an edge length of 36 kilometres. 70 percent of the surface of the earth is covered with water. There are 1.38 billion km³ of water on earth of which 97.4 percent is seawater. Of the 2.6 percent of freshwater about 78 percent is frozen. 8 million km³ of the liquid freshwater is groundwater; 126,000 km³ is in lakes, 61,200 km³ in the soil as moisture, 1,100 km³ is in rivers and 14,400 km³ floats in the atmosphere in the form of steam.



As long as the sun keeps shining and the water stays in its cycle, life on earth will not

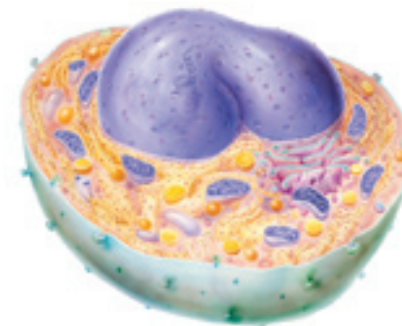
expire. The circulation of air propels the clouds, accumulations of water droplets and/or ice particles around the globe. Around 70 per cent of the earth's warmth is distributed in this way; the remaining 30 percent is carried by ocean currents. Without any humidity in the air; storms would rage all over the globe constantly, because humidity slows the winds. The ability of water to store warmth and coldness over long periods of time and to release and absorb them slowly prevents sudden drops in temperature of a hundred degrees or more.

Global water cycle, through which 48,000 cubic kilometres of water pass year after year. Life on earth is integrated into these macrocosm events, deep into the finest branches of the microcosm, for example our body cells.



Whether for warmth, solid, liquid or gaseous substances, water is the universal means of transport. The exceptional ability to dissolve external substances is essential for its life-giving function. The substances are not destroyed but are merely split up into their components. These are conserved and carried away by water. During its journey as a "packaged good" the substance cannot merge with any other substance. Water molecules group together around their "protégé" like bodyguards.

In this way water carries all vital substances through nature. It supplies the entire biosphere with nutrients and washes out pollutants. Likewise it flows through body organs, microorganisms and all living cells. The fact that the substance of the human body consists of 60-70 percent water can be interpreted as one of the many indicators of the miraculous order of creation. The proportion of water in the blood and in the brain can even be as high as 90 percent. It is fatal for the human body to lose more than 15 percent of its water.

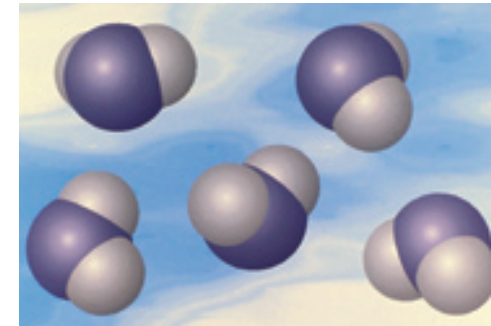


Section through a human body cell, which contains between 60 and 70 percent of water depending on its function. Brain cells can even contain up to 90 percent water.

Water

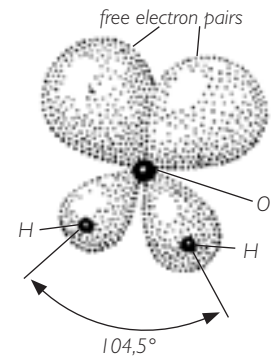
a

phenomenal element



Atomic structure

What is water? Apart from the obvious answers “wet” and “liquid” even school children could exclaim learnedly: “ H_2O ”, so familiar is the chemical formula for this everyday substance. It means that a water molecule consists of one oxygen atom (O) and two hydrogen molecules (H_2). The oxygen atom has a negative electrical charge and binds two positively charged hydrogen atoms. If we imagine the atoms as spheres, the hydrogen atoms would not just hang anywhere on the “oxygen ball” because their positive charges lead to their mutual repulsion in the same way that two magnetic poles of the same charge repulse each other. On one hand they are hanging on the oxygen atom, on the other hand they form an angle of about 105 degrees. So the water molecule shows a distinct geometrical form.



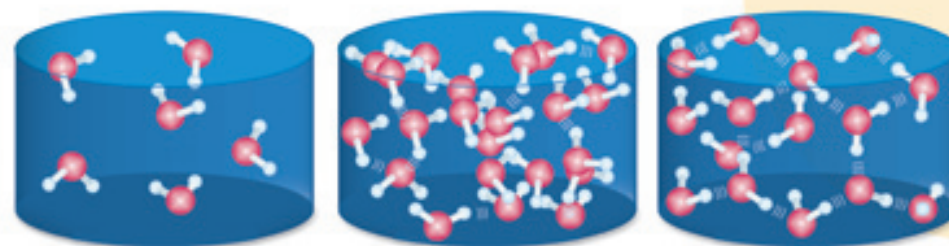
This model of a water molecule shows that two hydrogen atoms are bound to one oxygen atom. The electric charges (oxygen: negative, hydrogen: positive) create a geometrical shape that is to a great extent responsible for the phenomenal properties of water.

And that is not all. The bond angle of 105 degrees causes the negative charges of the oxygen and the positive ones of the hydrogen to point in opposite directions. Because they attract positively and negatively charged particles, so-called hydrogen bridges are formed between neighbouring water molecules. When the water freezes, another structure is created for which exactly those hydrogen bridges are responsible. They connect four water molecules at a time to an even, crystal lattice-like structure. A liquid crystal has formed. In the displays of watches and calculators, technical liquid crystals form digits and symbols.

Molecules in motion

If the ice is melted and the water warmed further, i.e. fed with energy, the hydrogen bridges are severed; new bonds are formed. At zero degrees Celsius, water molecules form 100,000 to one million new bonds every second. If water is liquid at this temperature, up to one trillion new bonds are formed by the water molecules. Each one of them only exists for a picosecond, which is one trillionth of a second.

The higher the temperature, the more the movement among the molecules increases. Several molecule groups form bigger structures, so-called clusters. It is estimated that several hundred molecules form a cluster at human body temperature. And they constantly change their shape. When we think about these



phenomena it becomes clear how little we know about ordinary H_2O . Why is water wet? What sounds like the silly question of a child is actually the subject of scientific research. The answers are in no way satisfactory to date. However, this much was stated in the "New Scientist" magazine of 15 February 1997:

"If you want to wet yourself with water" quipped the researchers "make sure that it contains clusters that consist of at least six molecules". With less than six interconnected molecules H_2O does not behave like a liquid. The clusters are planar forms. When a sixth molecule is added, they abruptly change into three-dimensional cage-like structures that, on a small scale, behave similarly to water as a liquid. The scientists cooled the accumulated clusters down to ten degrees above absolute zero to be able to study the 'fundamental' oscillations and rotary motions of the bonded molecules as well as those of the singular atoms. They succeeded in measuring the charge distribution in the water molecules and the distances between neighbouring oxygen atoms. Therein lie some of the reasons for the ability of water to dissolve far bigger molecules of other substances.

Water molecules form so-called clusters in liquid and frozen water. In steam (left picture) the molecules are not connected. In liquid state (middle) the water molecules come together to form ever changing clusters. In the cold (right picture) the molecular movement freezes; crystal-like structures are formed via "hydrogen bridges".

Vital anomalies

With this, water scientists were given another key to explain the numerous anomalies of water. While all compounds of hydrogen with non-metals (hydrides) are gaseous, the one with oxygen in water is liquid. If we were to compare water with similar chemical compounds, we would have to expect a freezing point of water of $-120\text{ }^{\circ}\text{C}$ and a boiling point of $-100\text{ }^{\circ}\text{C}$.



The phenomenon that is water leaves its mark on the surface of the earth in many ways. Hot, cloud-forming steam escapes from a geyser (hot spring). (Soft) water digs a path into hard rocks over the millennia. Water freezes from the top down for the enjoyment of ice skaters and the protection of fish habitats. Because ice is lighter than water, even the biggest iceberg floats.

Water's best-known anomaly is its density. In contrast to many other substances, it is not at its highest in the solid (frozen) state, but at approximately four degrees Celsius. While nearly all liquids contract during freezing, water expands and is at its lowest volume at $+4\text{ }^{\circ}\text{C}$. This is the reason for water pipes and rocks with water inclusions bursting when frozen.

Light ice floats on heavy water. Because the thermal conductivity of ice is lower, bodies of water always freeze from the top down and never as far as the bottom. The habitat of fish remains undamaged. This is one of the countless life sustaining properties of water. Many of these are not yet even known by scientists, let alone having been explored and understood by them.



A self-portrait of water



If water were to follow the numerous physical, chemical and other theorems of science concerned with it, even in their essence, we could not call it an elixir of life. Water predominantly follows its own rules. Because of this, there is life on earth and our blue planet is habitable.

Water displays structures, it is not an amorphous mass. To illustrate its nature, we could say that water has an independent existence and that it gives life from within itself. If it is allowed to flow freely, it oozes out of the ground here and there, forms stretches of streams and rivers over long periods of time. Again it follows its own rules. It is not the straight channel that suits water best, but the riverbed formed according to geological conditions and the meandering way of a stream. Water whirls and rolls through the landscape, becomes one with it and with the air. It leaves its own characteristic mark on the landscape and creates habitats for plants and animals. Thus, on a grand scale, water also creates structures for life.

Ruth Kübler calls this picture of drops of spring water from Vomperberg in Tyrol "Lichtauge" (eye of light).



Snowflakes:

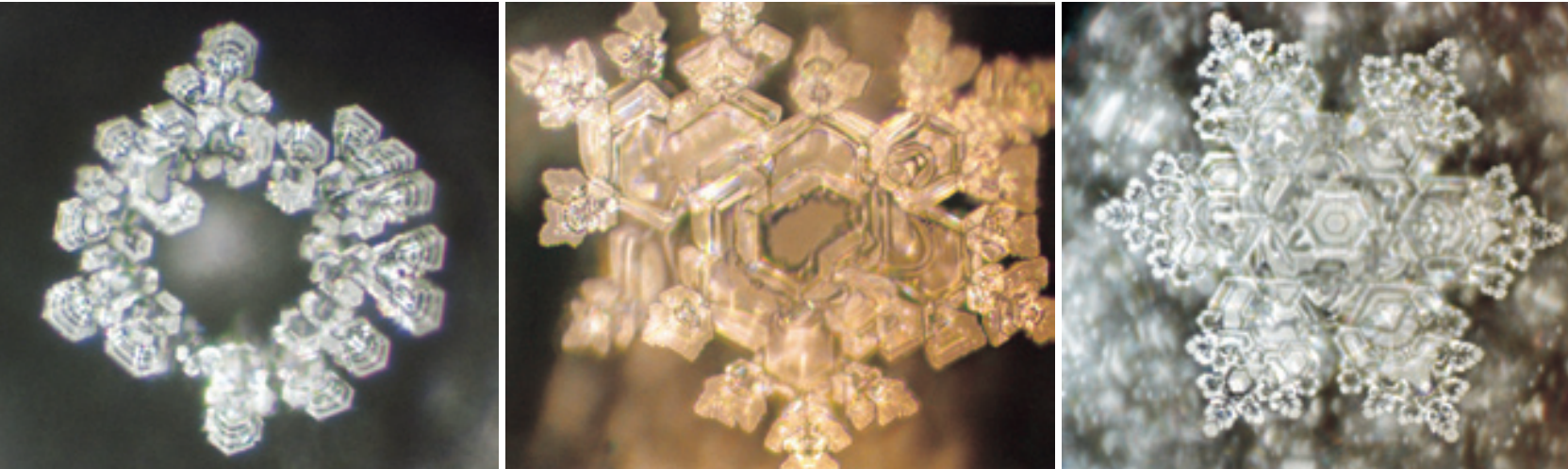
An endless variety of shapes

Every snowflake is the most beautiful proof of structure and shape-creating forces that are hidden within water. Under the microscope they present themselves like ornamental stars. They have been formed from ice crystals that - under certain weather conditions – merge into flakes on their way from the sky down to earth. There are only about a dozen basic crystal structures; however, the number of snowflakes that they can form is endless. Never have two identical snowflakes been found. Not even snowflakes that land on or beside one another have the same shape, even though they must have emerged under identical conditions.

What seems identical to us is obviously not identical for a water crystal. It appears that subtle influences determine the shape of a snowflake just as much as those of water clusters. All of them are unique events. To deduce any principles from them that would find their way into scientific literature as theorems seems to be impossible.

After all, it is demanded from all sound evidence in physics and chemistry that findings must be reproducible. The little snowflakes mark the borderline, east of which only the amazement about natural phenomena remains. Nothing can be simply measured or calculated anymore. The effects of these mysterious processes can however often be noticed; for example visually. Even with a constantly repeated precision. Common sense alone should forbid us from accepting such facts.

The snowflake displays the face of water. Unconventional water researchers have developed methods that allow water to depict its current state by itself. A drop is sufficient for this self-portrait. From it, conclusions can be drawn, no matter whether the water is healthy or contaminated, well- or badly-treated. Water, the elixir of life, reveals properties and reactions like living beings, be it plants, animals or humans.



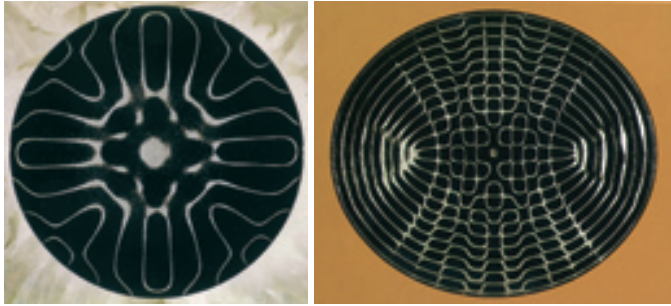
Crystal clear messages of water. Masaru Emoto delivers them from frozen drops of different waters. Left: Water from the fountain of Lourdes in France. Middle: Water that was "listening" to the aria from the third orchestra suite by Bach. Right: Spring water from Saijo in the prefecture of Hiroshima.

Frozen water drops reveal a lot

Masaru Emoto, born 1943 in Yokohama, Japan, has been a state approved doctor for alternative medicine since 1992. He calls the light radiation that originates from electrons "Hado". The term is a synonym for "Chi", the subtle energy that flows through all life according to traditional Chinese medicine. From the American biochemist and water researcher Dr. Lee H. Lorenzen, Emoto acquired a so-called Magnetic Resonance Analyzer (MRA) that can measure the fine oscillations of liquids. In a magnetic "resonance field", oscillation patterns appear; none of which is identical to another. It was Emoto's idea to freeze water drops and gain information from the crystals that form during the process. He succeeds with sensational results by using the freeze and photograph technique which he developed himself.

By now Emoto probably has taken tens of thousand photographs that allow stunning insights into the "private life" of water. Harmonic and beautifully shaped crystals indicate that they derive from pure water; from spring water. The mini-portraits of tap water or polluted water on the other hand virtually cause pain. Clear water appears to have been severely hurt in those cases. Masaru Emoto has found that water reacts in a very sensitive way to even the smallest of outer influences and that it changes its "miniature face" immediately. Water also appears to react to sounds, to music and even to words. Numerous colour photographs of water crystals that produce forms of a divine beauty under the influence of a Mozart symphony or Bach's "Goldberg Variations" can be found in his book "Messages from Water". Heavy Metal sounds however leave behind a chaos of fragments of a destroyed crystal.

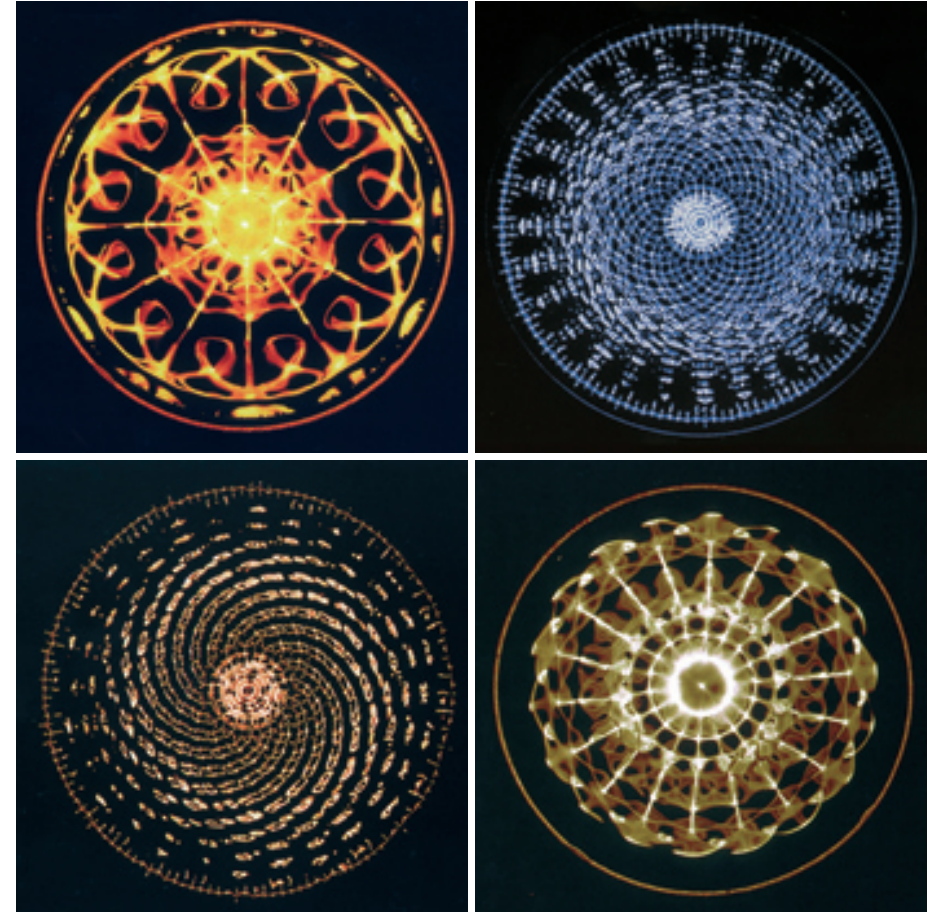
Chladni figures.
Alexander Lauterwasser
generated them. Left:
Formed by sand on a
silicon one-crystal plate
at a sound frequency of
4,341 Hertz. Right: Sand
on a steel plate, 12,301
Hertz



Music makes water drops swing

Ernst F. Chladni, a contemporary of Goethe is the originator of the sound figures named after him. He sprinkled fine sand onto glass plates, rubbed them with a violin bow, thus setting glass and sand into vibration. The sand formed lines on a round plate that showed kinds of harmonic ornaments depending on the frequencies. The Swiss doctor Hans Jenny was inspired by the Chladni figures to transfer the phenomenon to liquids. During the 1960s and 1970s he succeeded in creating the most beautiful water sound figures. Jenny called his science "Cymatics" after the Greek term for "wave".

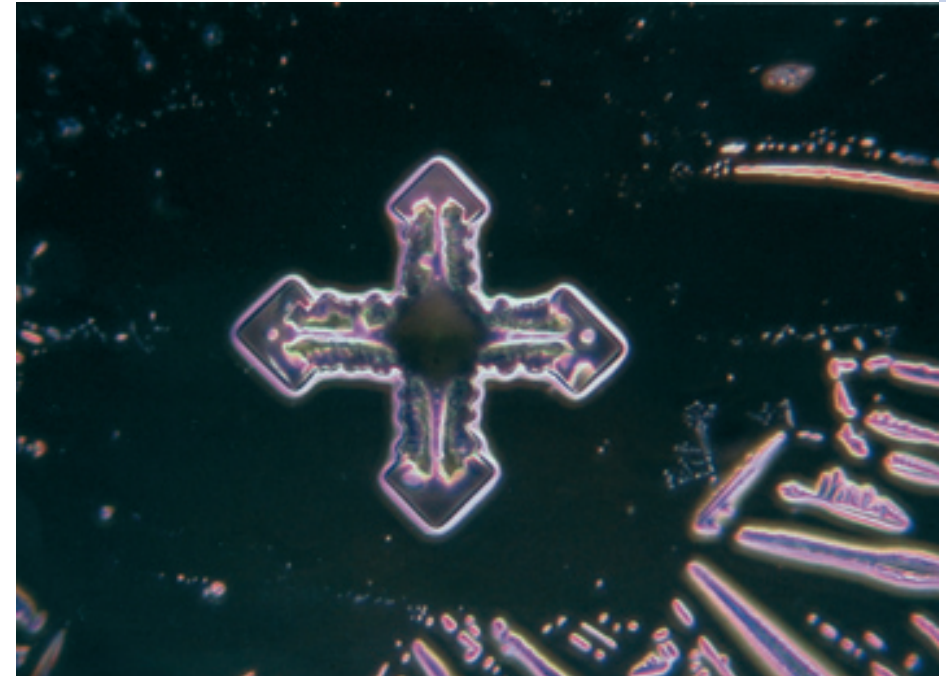
In 1993 Alexander Lauterwasser, born in 1951 in Überlingen/Bo-densee, took up Jenny's cymatics. He says he wanted to study the phenomenology and typology of the patterns created by vibration and sounds as well as morphogenesis, the processes of the formation of shapes in nature. He transfers vibrations via a filled vessel to the medium.



Alexander Lauterwasser studies shapes and shape-forming processes in nature, evoked by vibrations and sounds. He transfers sound oscillations via a vessel to the water within it. Stationary ("standing") shapes are created. On the top left corner a "water sound figure" generated at a frequency of 30.5 Hz; on the top right one at 102.528 Hz; on the bottom left also 102.528 Hz; on the right 35.1 Hertz.

The sound waves, constantly crossing and eclipsing one another in the water and on its surface create impressive structures: sound figures. Lauterwasser makes them visible using special light reflections and photographs and films them. Using a more recent technique, he can make the shape-giving processes in vibrating water drops visible. A plate with a few water drops on it is vibrated vertically at a frequency of 50 to 120 Hertz, using a frequency generator and a specialised sound transducer. When the plate moves downwards, the middle of the drop forms a dome, when it swings back it forms a depression instead. Then, depending on the amount of water, amplitude and frequency, a bipolar structure is formed that constantly and alternately creates a dome and a depression. Lauterwasser documented a wealth of further phenomena. One example is the ability of the water drops on the vibrating plate to respond with very rhythmic movements and formation of shapes.

Another phenomenon regarded as being ‘fundamental’ by Lauterwasser is the creation of stationary shapes – in the midst of the most intense vibrations and movements! The water researcher conjectures that maybe the atoms and their lattices are not the primary building blocks of matter after all. Their quasi-stationary points and structures are possibly the manifestations of “standing waves”.



Memory and thoughts in a water drop

“What has an effect is reality and not everything that has effect can be measured.” This statement is taken from the blurb of the book „Welt im Tropfen – Gedächtnis und Gedankenformen im Wasser“ (The world in a drop - memory and forms of thought in water”). We should at least take notice when a drop of water “apparently” absorbs information and mental energy and changes its shape as a consequence. With this recommendation, Prof. Dr. Bernd Kröplin introduces the book that he wrote to accompany an exhibition of the same name. He is Head of the Institute for Statics and Dynamics in Aeronautic and Space Travel Construction (Institut für Statik und Dynamik der Luft- und Raumfahrtkonstruktionen) at the University of Stuttgart, Germany.

Drop phenomenon “isosceles cross”; the base was a sugar solution, five times diluted 1:1 with an isotonic saline.

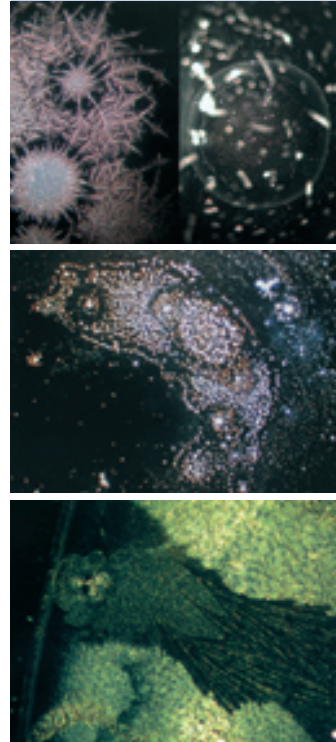
Why should a professor of engineering care to ask the question “can water think?” When researching a bioenergetic medicine for use in space, he came across one of the numerous anomalies of water more or less by coincidence: low field strengths, not detectable with the usual techniques, that show up in water, can be viewed under the microscope and be photographed.

Kröplin was fascinated by the phenomena that were detected. He took them seriously and did not push them aside just because he was not able to explain them. Bernd Kröplin takes it upon himself to investigate phenomena for which there are no theories. “We are trying to find a ‘theoryless’ starting point” he writes “that permits all unknown phenomena.” With these photographically recorded structures, a path opens up “where intensive and scientific methods of understanding supplement each other and together can play their part in comprehending the phenomena”. To quote Kröplin: “We see that water stores information and, during its cycle, carries it out into the world”. In his search for a method to make the influence of weak electromagnetic waves and fields on living systems visible, his work with the painter Ruth Kübler became a pivotal experience for Kröplin. Inspired by Goethe’s theory of colours, she enchants exhibition visitors and lovers of her art postcards with pictures full of light made using her own ‘step technique’.


With her art she has tried to get through to the essence of things. In nature’s microcosm she also discovered images full of expression, which she recognised as the results of a creative process.

Ruth Kübler drips liquids, mostly water, onto microscope slides using a disposable syringe, puts the drops under the microscope and photographs them 20x to 100x enlarged with a digital camera. Even when drying, the images had already begun to develop further. After diluting in stages and mixing by shaking with a liquid as is common practice in homeopathy, images with specific features started to emerge. With a continuously increasing potentiation the image changed step by step. It appears to Ruth Kübler that the essence of a substance becomes more and more prominent. That the images cannot be reproduced as demanded by so-called exact sciences, cannot be interpreted as a shortcoming of the Kübler- drop image method. It could instead be interpreted as strong evidence for the effects of natural forces of growth and the sensitivity of water to react to subtle external influences and information.

In his book “Die Welt im Tropfen” (“The world in a drop”) Bernd Kröplin writes: “Memory and current thought forms play a not insignificant role in the creation of reality. This process is visible in the drop image.”



“Lebensbilder im Wasser-tropfen” (“Life forms in water drops” photographed digitally by Ruth Kübler in the dark field on the microscope. Top: rye bread made with salt (left half of picture) and without salt (right). Middle: Phenomenon “Fish”; appeared in a stock of Aloe-D5 in water manually potentiated with distilled water. Bottom: Phenomenon “Primate”; Ginkgo-biloba-infusion solution potentiated with distilled water D2.

A glass of water in the foreground with a waterfall in the background.

Drinking water: number one food

Water appears to be as sensitive and vulnerable as life itself. How it reacts to external influences and how its internal constitution might work have hardly been explored at all and so far have escaped any scientific-technical measurement or analysis. The results of 'image producing' testing procedures, reproduced here merely to highlight examples, and their interpretation by water researchers using an unorthodox approach should nonetheless not be ignored. Water's "participation" with regard to all life on earth and human health is far too important for that.

The prescribed quality of drinking water

Our drinking water is obtained from existing supplies of spring water, groundwater and surface water. Its quality and composition are governed by law. The German Drinking Water Act (Trinkwasserverordnung, TVO) of 1 January 2003 is described as the "most stringent obligatory water regulation in the world" by the Federal German Association for the Gas and Water Trade (Bundesverband der deutschen Gas- und Wasserwirtschaft, BGW). With the TVO, the EU-guideline for the "Quality of Water for Human Consumption" has been adopted into national law. The guideline names microbiological, 26 chemical and 18 so-called indicator partners that are to be screened for and which have to stay within certain limits. Some of the indicators without fixed threshold values which, for the consumer, should be "acceptable and without abnormal alteration" are colour, smell and clouding of the water. The water supply company is, according to the TVO, in charge of the water's quality as far as the water meter. From the meter to the tap, the house owner has to take responsibility.

Analysis parameters	Unit	Result	Proofgr	Drinking water act 2001	DIN 50930	Method
Sensory tests						
Colour		colourless				EN ISO 7887-C1
Cloudiness		clear				DIN 38404-C2-1
Taste		none				DEV B 1/2
Smell		none				DEV B 1/2
Physical-chemical parameters						
Temperature (on-site)	°C	10.4				DIN 38404- C4
Conductivity b.20°C γ(on-site)	µS/cm	556	1			DIN 38404-C8
PH-value (on-site)		7.27		6.5-9.5		DIN 38404-C8
Anions						
Bromate (BrO ₃)	mg/l	<0.01	0.01	0.025		DIN EN ISO 10304-1-D19 (modified)
Cyanides, total	mg/l	<0.005	0.005	0.05		DIN/DIS 14403
Fluoride (F)	mg/l	0.21	0.02	1.5		DIN EN ISO 10304-1-D19
Nitrate (NO ₃)	mg/l	12.9	1	50		DIN EN ISO 10304-1-D19
Nitrite (NO ₂)	mg/l	<0.02	0.02	0.5		DIN EN ISO 10304-2-D20
Nitrate50 + Nitrite/3	mg/l	0.26	0.1	1		
Anorganic components						
Antimony (Sb)	mg/l	<0.001	0.001	0.005		DIN38405-D18
Arsenic (As)	mg/l	<0.001	0.001	0.01		DIN EN ISO 11885-E22
Lead (Pb)	mg/l	0.001	0.001	0.025		DIN EN ISO 11885-E22
Boron (B)	mg/l	<0.02	0.02	1		DIN EN ISO 11885-E22
Cadmium (Cd)	mg/l	<0.0005	0.0005	0.005		DIN EN ISO 11885-E22
Chrome (Cr)	mg/l	<0.005	0.005	0.05		DIN EN ISO 11885-E22
Copper (Cu)	mg/l	<0.005	0.005	2		DIN EN ISO 11885-E22
Nickel (Ni)	mg/l	<0.002	0.002	0.02		DIN EN ISO 11885-E22
Mercury (Hg)	mg/l	<0.0002	0.0002	0.001		DIN EN 1483-E12-4
Selenium (Se)	mg/l	<0.001	0.001	0.01		DIN 38405-D23-2
Highly volatile halohydrocarbons						
Trichloromethane	mg/l	<0.0001	0.0001			DIN EN ISO 10301-F4-3
Bromine dichloromethane	mg/l	<0.0002	0.0002			DIN EN ISO 10301-F4-3
Dibromochloromethane	mg/l	<0.0002	0.0002			DIN EN ISO 10301-F4-3
Tribromomethane	mg/l	<0.0003	0.0003			DIN EN ISO 10301-F4-3
Sum THM (Single substances)	mg/l	n. detect.	0.0008	0.05		
Trichloroethene	mg/l	0.0012	0.0002	0.01		DIN EN ISO 10301-F4-3
Tetrachloroethene	mg/l	<0.0002	0.0002	0.01		DIN EN ISO 10301-F4-3
Tetrachloroethene.Trichloroethene	mg/l	0.0012	0.0004	0.01		
Chloroethene	mg/l	<0.0001	0.0001	0.0005		DIN 38413 – P2 GC/MS
1,2-Dichloroethane	mg/l	<0.0005	0.0005	0.003		DIN EN ISO 10301-F4-2

Excerpt from an official drinking water analysis according to the drinking water act (TVO); dated 18 August 2005

The new TVO has led to a significant increase in water testing. The water supply companies complain about more bureaucracy and additional costs. "With regard to personnel and finances the water is up to our neck", as one councillor vividly describes. Sources in the health authority of a large German city say that an exact implementation of the TVO is practically impossible. Statements like this also deserve to be noticed by the tap-water drinking citizen. The efforts of legislators and the water industry to supply clean drinking water will bring about more measures in future.



Risk evaluation of drinking water supply

The World Health Organisation (WHO) would like to prioritise risk evaluations of certain areas of the water supply rather than the use of threshold values for individual parameters. Part of this would include investigations into how well a supply area is protected and how reliable the water treatment, distribution network and domestic installation protect against health hazards. Pointing out that municipal sewage treatment works perform well will probably not put people's minds at ease in the future. In 2004 scientists at Dortmund University examined the degradation behaviour of more than 70 individual substances of which many, some toxic, were detected in water for the first time. Even after treatment. The molecular structure of the substances prevents them from being filtered out of the water using today's technology. So they enter back into the lakes and rivers and in the end up in the drinking water.



Water as information carrier

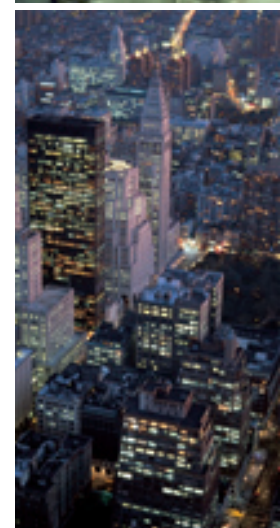


The fact that H_2O , apart from its chemical properties and physical anomalies, is also an information processing substance with a memory and an ability to communicate, is a fact that has been empirically ascertained many times and cannot be refuted. The 'self portraits' that were extracted from water are a clear indication for this, as are the effects of homeopathic medicines.

Homeopathy becomes explicable

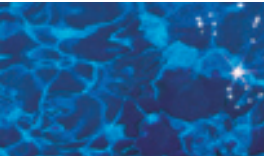
How can taking a 'watery' solution that, after repeated dilution, does not contain a single molecule of the active substance originally mixed in, still have a healing effect? The Meissen Doctor and chemist Samuel Hahnemann (1755-1843), who established homeopathy, spoke of a "pure force" that is inherent in every natural substance. If it was "woken up" by being shaken in a container with water, the substance itself would not be needed afterwards at all.

Nowadays, we have at least a scientifically plausible idea of why this is the case. Nuclear physics has studied the hydrogen atom as an electromagnetic dipole; scanning tunnelling microscopy has made single water molecules visible. Simulations on supercomputers have contributed to a consolidated and vivid idea of cluster formation. The slightest movement of an atom and the formation or disintegration of a cluster could have a part in the information flow within water. Whether the 'engraved' information of pollutants vanishes with the pollutants themselves after the physical or chemical treatment of water in the waterworks is questionable.



No exchange of information without energy

Water is certainly not a living being. However, we can describe it as a 'vital' element. According to the dictionary, "vital" means relating to, or characteristic of life; necessary for the continuation of life; being the basis of life; being that on which life depends. Water absorbs information from its environment in a phenomenal fashion, stores it, passes it on. None of this is imaginable without the exchange of energy. Where water obtains the energy for its 'vitalising' forces, for its continuous communication with the 'world' with which it is in contact, cannot be explained by conventional physics. Starting from the undeniable phenomena of this elixir of life, researchers have time and time again gone on the quest for the sources of 'water energy'. Disciplines like quantum physics and the latest analysis and measuring methods promise some enlightenment. Fundamental new insights, which probably cannot just be derived from our western-mechanical worldview, are to be expected. The philosophy of science talks about a "paradigm shift" when established doctrines will be thoroughly revised – to the point where they are eventually overcome. Scientists who do not deny the phenomenology of ordinary water can contribute significantly to this.

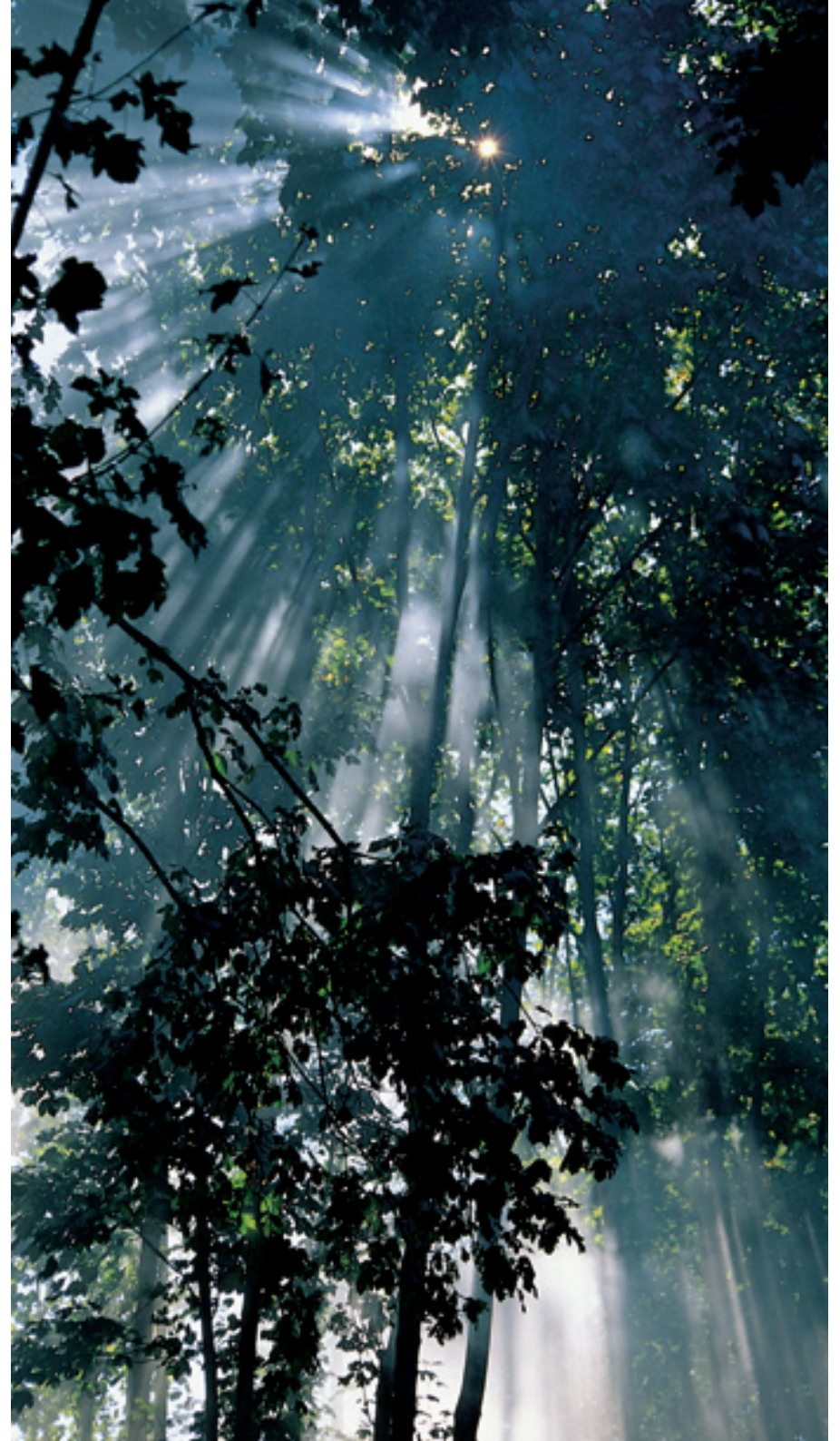


Loss of vitality on the journey through the technological world

Common sense is enough to tell us that 'unspoilt' water changes significantly on its journey through the technological world and through a biosphere that is influenced by humans. Up to the point where water runs from the tap, it has usually been forced through pumps several times, has passed sewage works and treatment plants and has been squeezed through long pipes. It has absorbed and dispensed pollutants and all sorts of minerals and transported some of them into our bodies. It has been deprived of its natural 'urge to move' and of its contact with sunlight, with air containing its oxygen and nitrogen, and with the soil and its minerals.

Everything, for example the material of the pipes and the substances deposited in them, leaves, at least for a short time, 'traces of information' in the water. We have to at least assume this. This cannot be beneficial to its vitality. On the contrary. The water that is supplied into the house by the water companies is nonetheless pure and adheres to the prescribed quality standards. That is all we can ask for.

However, we should not overlook the fact that the standard knowledge of the water industry only reflects a fragment of what forms the 'character' of water. Its exploration has only just started. And its qualities and what determines its vitality might never be measurable. But its effects, especially those that affect the state of health and human well being, can be observed and studied. Empirical science too has always been a means for the advancement of understanding.



Energy without calories



Consuming food for humans means consuming energy that the body needs to keep up its functions. The basic unit for measuring the energy that a certain amount of food or a meal supplies is the calorie. Apart from this, every human knows numerous sources of energy for which the energy content is not measurable, at least not in calories. They are mostly received subconsciously, but their strengthening, 'vitalising' even uplifting effects are felt. Warm sunshine, the view of a beautiful landscape, the love of a man or a woman, a pleasant word and the acknowledgement of an achievement convey a feeling of well being and „joie de vivre“. It is feelings that enrich our lives. The fact that they can be increasingly explained with chemical processes in our bodies by bio-scientists does not change their natural emotional origins. It would not be inappropriate to generally describe the origins and immaterial paths of these influences, which are perceived as 'soul-food', as "energies of life".

The discovery of Dr. Wilhelm Reich

One of the most extraordinary scientists among those who dedicated themselves to the subtle energetic processes in the human body was Dr. Wilhelm Reich (1897-1957). This close collaborator of Dr. Sigmund Freud, the originator of psychoanalysis, did not have any other choice but to approach the subject of his interest by empirical research, through observation, by experimentation and also for example by microscopic examination. With the help of numerous experiments, Reich succeeded in delivering the scientific proof of the existence of an unknown form of energy that he called "Orgone". A most useful result of his discovery is the so-called Orgone Accumulator. This is basically a box constructed from alternating layers of electrically conductive and non-conductive materials. In it, the Orgone energy accumulates, which is present in the atmosphere. A test person would sit inside the accumulator and experience the pleasant effects of this "life energy".



Invigorating information transfer

Walter Gorenfloss MD was an unusual doctor. He was well familiar with the orgone accumulator created by Wilhelm Reich and its effects. Over the years, Gorenfloss had 'accumulated' a wealth of knowledge gained from experience and was inspired to do his own research and experiments. Therefore it was known to him that the molecules of certain substances re-align themselves under the influence of magnetic and electric fields and can in this way generally store information. What nowadays is performed by any liquid display (LCD) was discovered by Gorenfloss in what was practically their physically-technically early phase by empirical means.

To the Plocher family, whose children founded PENERGETIC AG, Gorenfloss was friendly connected. They are still in contact with his widow. Gorenfloss had devised an apparatus for his medical practice with which he could transfer information of healing substances onto certain materials.

In order to be able to apply the information stored on the carrier material for practical use on his patients, he had to free it again from the carrier. He achieved this by using a saline solution, which he injected, as well as using "informed" metal platelets, on a belt that had to be worn by the patient.

Every information transfer needs a "driving" energy. Gorenfloss used that of a magnetic field, but experimented also with that of the orgone field. Finally he succeeded in creating the perfect bridge between the two kinds of energy. He stored the information on the carrier material using a magnetic field and fell back on the familiar use of orgone radiation. Walter Gorenfloss initiated the Plocher family into his work as early as the 1980s. Thus he became one of the main initiators of the development of the PENERGETIC technology on which, among other things, the AQUAKAT is based.

Penergetic technology promotes healthy life and growth



It is obvious and well known that the right information is crucial. The information that is carried to its destinations by Penergetic products, which contain their healthy life- and growth-promoting effects, is literally of "a special nature". It all starts with the dedicated search for substances, the effects of which on biological systems, including water, are known or can be assumed with reasonable certainty. Because the information that is emitted by the active substances is embossed onto a carrier material, which should then carry its same effects, plenty of empirical knowledge and unusual methods of research are necessary to achieve the objective. A continually updated and extended database embodies, so to speak, the centre of knowledge of Penergetic. Thousands of pieces of information have been stored by now. They contribute to the optimisation of existing products on the one hand and, on the other, help with the development of new projects.



The process technology, even though it is based on the foundations developed by Wilhelm Reich and Walter Gorenfloss, is the result of processes developed by Penergetic with the inclusion of the most recent technical components. In this way, the “effect-intensity” of the products can now be changed and adjusted smoothly. Experimentation is part of the daily work of Penergetic AG, at their manufacturing plant in Uttwil on Lake Constance in Switzerland, as well as on site with clients and those seeking advice.

Each of these activities plays its part in assuring the quality of the products, to keep their effects constant and reproducible and to be able to make reliable statements about projects that are under discussion. Often, specialists, for example in the fields of hydrology or microscopy, are consulted to analyse the effectiveness of Penergetic products. These cover a wide range of uses by now; from water vitalisation or revitalisation via informed preparations for the improvement of humus formation, plant growth and animal feeds, to an optimised treatment of liquid manure. Still in its infancy is the “informatory enrichment” of body care products and wellness products; soothing essences, mostly extracted from herbs, are frequently the carriers of information.



AQUAKAT brings vital information into tap water

Tap water is pure and can be consumed safely. This is guaranteed by the drinking water act and the ongoing inspection of adherence to its quality standards. Unlike natural spring water, tap water cannot be “lively”. For this, it would need the contact with its natural environment that has been lost: with light, air and soil; it lacks the “vitalising” exchange of information with the biosphere and the freedom to move that befits for water; the elixir of life.

It is hard to imagine that water’s former vitality can be restored with the help of a purely technical apparatus. We assume that the subtle “inner life” of water, which so far has hardly been explored and in the end is not accessible using current methods of analysis, can hardly be positively influenced in this way. In contrast to this the insights into the phenomena of water gained over decades and their explanation with the help of the latest test methods give grounds to the conclusion that the use of the AQUAKAT lets tap water regain vital properties.

In the same way that, by just looking at it, we would not know that a satellite dish brings television pictures into our houses, we



The AquaKat is simply attached to the main water pipe. Bigger models to the main house pipe, smaller ones directly at the sink or water tap.

could not guess the function of the hermetically closed stainless steel cylinder. The cylinder is simply attached to the water pipe. Everything that has an effect on the tap water and vitalises it is invisible: the energy (which does not come from a wall socket) as well as the information that is transferred to the water as it flows by. It is stored on a number of foils that are rolled up in the cylinder and originates from several different "natural" vital waters. Even when the tap water does not flow, it will come into resonance with the oscillations of the waters of which the inherent information is "imprinted" on the foils (carrier material). Water clusters form accordingly and store it like a memory.

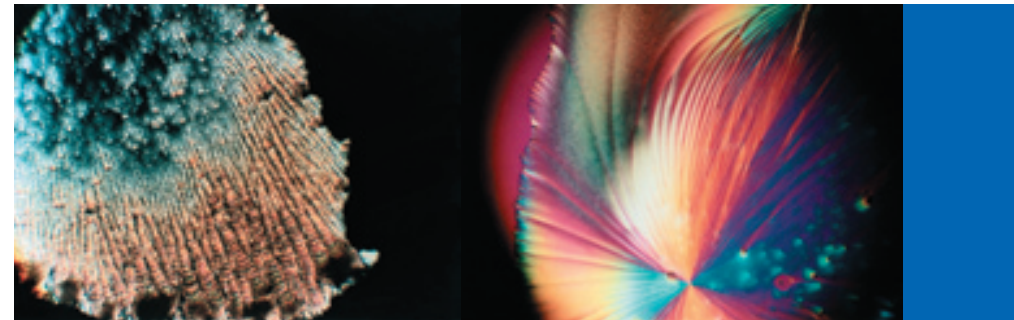
Water - an ideal solvent once again

One effect of the revitalised water that has been noticed time and time again, is that limescale from inside the pipe walls can dissolve and will not form again. The reason for this is that water will regain its natural solvent power for foreign substances and that it carries them off in their smallest particles. Rust in steel pipes is dissolved in the same way and then washed away like all the ingredients in the water.

Because the AQUAKAT does not come into direct contact with the water when carrying out its "purification work", it does not have to be licensed according to the drinking water act. Microscopic examination has shown that practically no coagulated

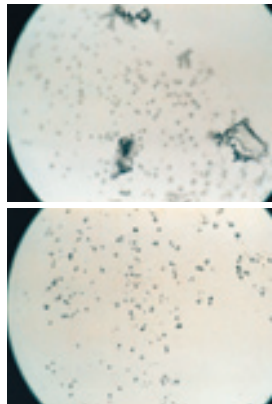


The smallest model: the AquaKat - s. Ideal for the vitalisation of water at single taps or when travelling.



Test of the effects of AquaKat with ascorbic acid dissolved in distilled water. Without the AquaKat hardly any crystalline structures form (left). In contrast, with the AquaKat crystals with a punctiform centre from which crystal-typical interference colours are emitted.

crystals form under the influence of the AQUAKAT. Instead, small round and isolated singular crystals are formed that have the additional effect of stabilising the hardness of the water: As a comparison, the crystal scientist Dr. Elmar Langenscheidt has re-tested the well-known crystallisation behaviour of ascorbic acid. In water that was informed by the AQUAKAT, ideal typical uniaxial crystals are formed. Their centre is clearly recognisable. It becomes the centre of a radial corona of interference colours, which indicates a closed crystal structure.



Coagulated lime crystals (upper picture) are responsible for limescale in pipes and household appliances. However, singular crystals (lower picture) stay suspended and are usually washed away by the water.

New insights into tap water

The pleasant and even healing effects of water, which has been treated with the AQUAKAT, are not easily measured or assessed by optical examination. But they can be experienced. A multitude of well-documented positive reports shows this. Households and businesses are happy to be rid of their limescale problems. A champagne producer was able to decommission their water softening plant; a service company saves 30 percent of its costs on cleaning and disinfection agents. A bakery reports that their bread dough is easier to process, a pasta manufacturer has a similar experience with kneading their dough. Publicans and restaurateurs are happy with the notably improved taste of their water, stating that it is easier to make cleaned glasses sparkle and that the laundry needs less detergent.

For three months, plumbers (readers of the German plumbers' trade journal "sbz Sanitär-, Heizungs-, Klima- und Klempner-technik") as well as members of the German national residents' association (Deutscher Siedlerbund) and the national house and apartment owners' association (Gesamtverband für Haus- und Wohnungseigentum) tested the AQUAKAT. The positive evaluation by more than 80 percent of the testers even convinced the journalists who were sceptical at the start of the tests. Even water properties that can only be experienced subjectively were identified: the water just tasted better; it felt softer; the chlorine taste disappeared, when having a shower one felt refreshed as if under a waterfall in the mountains.

Scientifically verifiable changes in tap water that could be regarded as its revitalisation and surprisingly positive experiences with businesses that use large amounts of industrial water are absolutely crowned by the consumers' delight for the improved enjoyment from their water taps.

We should not have less regard for these remarks by "ordinary" consumers. They refer, after all, to water, the elixir of life.



Medicinal water and other healing waters

Natural mineral water and medicinal water are pure by nature. They come from underground reservoirs that are protected from pollution. Bottling is only allowed at source. The water is put on the market in sealed bottles with labels that inform us of the location of the source and the water's content of minerals and trace elements and of possible healing properties. About 500 mineral waters and 70 medicinal waters are on offer from German springs and sources. Each water is officially recognised and its quality is tested regularly. Its composition, i.e. the concentration of its ingredients, is regarded as being vital to the effects of a medicinal water on the organism. They are dissolved in the water and therefore can be absorbed particularly well by the body. A third category of water that can only be sold in bottles is "spring water". It has to fulfil all the necessary criteria for drinking water. Only carbonating or de-carbonating it and the separation of iron and sulphur are permitted. "Table water" is a drink that is not subject to the mineral and table water act (Mineral- und Tafelwasserverordnung (MTV). It can be produced and bottled anywhere. Anything that is not analysed by water laboratories or is not mentioned in the MTV or drinking water act is not recognised. Neither the water's inherent vitality and sensitivity, nor its exchange of information with the environment; not the entire phenomenology that makes it the elixir of life. The pleasant and healing effects of mineral and medicinal water can certainly not only be traced back simply to the chemical reactions taking place in the water. The same can be said for health spas where the water is also precisely analysed and where the healing effects can also be seen time and time again. But also those of "holy" waters. What is said for example of the healing power of the water from Lourdes or from the river Ganges cannot just be dismissed as the self-delusion of naive people.

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Gottfried Hilscher, born in 1938, has a degree in automotive engineering and aircraft construction; he studied political science at night school. In 1964 he became editor with the engineering journal VDI-Nachrichten. He has worked as a freelance journalist specialising in sciences and technology since 1971. He was editor-in-chief with "airport forum" a specialist journal, which he co-founded, for 15 years. For him, water is a long-term topic.

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