

Measuring Human Energy Field Revolutionary Instrument to reveal Energy Fields of Human and Nature Professor, Dr. Konstantin Korotkov

Human Energy Field (HEF) – is the most sensitive reflection of physical, emotional and, in some cases, spiritual conditions of a person.

We take measurements from 10 fingers of both hands and using sophisticated software create an image of HEV. The principle is based on connection of fingers with different organs and systems of the body by Chinese energy meridians. This idea was firstly proposed by Dr Voll in Germany, later developed by Dr Mandel either in Germany, and then clinically verified and corrected by a team of Dr Korotkov in Russia. So the image which we create in GDV instrument is based on ideas of Traditional Chinese Medicine and verified by 15 years of clinical experience by hundreds of medical doctors with many thousands of patients.

GDV is certified as a medical instrument in Russia and Europe. FDA certification in the USA is under way. It gives you information of your Energy Field and allows to see its day-to-day transformation and the influence of different situations and stimulus to your HEF and hence, to your condition.

History and Background

Bioelectrography dates back to 1770 when German physicist George Christopher Lichtenberg observed light coming from different subjects in electrical fields. In XIX century many researches have become interested in this approach. Between them was famous Nicola Tesla in the USA, Yakob Narkevich-Yodka in Russia, Pratt and Shlemer in Chehia and many others.

In Brazil intensive research in Bioelectrography was conducted by Padre Landel de Moura. He published several papers and his achievements were praised by establishing a museum in En Porto Alegre dedicated to his name.

In XXth century Soviet researchers Semyon Davidovich Kirlian with his wife Valentina dedicated 30 year to research in Bioelectrography. They developed a lot of new instruments, demonstrated applications in different field, and due to their outstanding activity the name “Kirlian Photography” became known in the world.

Later on a lot of researchers were excited by Kirlian photography. In Brazil Dr. Newton Milhomens has developed medical approach for detecting cancer and other problems. In 1998 he published a book “Fotos Kirlian, Como Interpretar”. He was awarded with high prize by Brazilian government, and after his death in 2007 his wife Selma proceeded with training in Milhomens technique.

In 1978 an International Union of Medical and Applied Bioelectrography was organized in New York combining researchers from all over the world.

Gas Discharge Visualisation (GDV) instrument was developed in 1995 in Russia by a team of Professor Konstantin Korotkov. It is based on the achievements of the Quantum Electrophotonic Imaging (EPI) (www.korotkov.org, www.ktispb.ru). The Electrophotonic Camera (EPC) instrument based on analysis is a state-of-the-art computerised system to study human energy fields. Using the Kirlian effect, this technique goes far beyond traditional Kirlian photography in many ways. The EPC system allows for direct, real-time viewing and analysis of changes in the energy field of humans and other organisms. The information gathered is quantified and analyzed by sophisticated software. This technology has extraordinary implications for all health related fields, including conventional and complementary medicine. Research with the EPC device is currently being carried out at universities and research institutes worldwide, in such areas as medicine, "energy medicine", athletic training, biophysics, parapsychology, and other areas. Recently a new application of EPC for Remote Detection of Human Emotions named “EPC Sputnik” has been developed. EPI has been used as the basis for significant research and in each instance, the reliability and value of the entire system has been confirmed.

• The EPI system has been presented at the USA National Institutes of Health to an audience of world-class scientific investigators participating with Dr. Wisneski and Dr. Korotkov. This

represented a diverse group of recognized experts from the US government and academic institutions.

- A Penn State study was conducted by scientists from the National Institutes on Aging, which validated that EPI can be used in high volume venues and accurately offer a consumer-friendly assessment of health status.

- EPI has also been the basis of graduate doctoral dissertations in various countries, which included research both in medical and technical fields.

- Dr. Korotkov has hosted a series of annual international scientific congresses in Russia during the last 15 years, at which scientists from 46 countries have participated in and presented their research outcomes in a variety of research areas, utilizing EPI protocols, including some significant studies involving early cancer diagnosis.

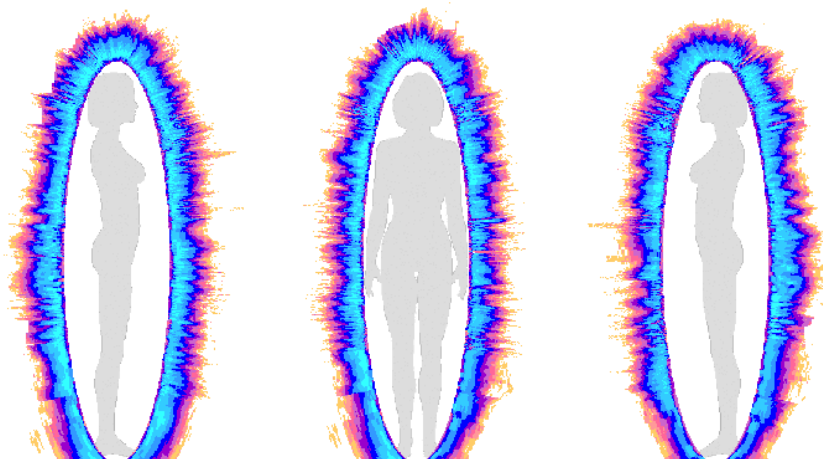
- The meta-analysis of papers published in English or Russian language from 2003 to 2007 was presented in “The Journal of Alternative and Complementary Medicine”. January 2010, 16(1): 13-25. *Korotkov K.G., Matravers P, Orlov D.V., Williams B.O. Application of Electrophoton Capture (EPC) Analysis Based on Gas Discharge Visualization (GDV) Technique in Medicine: A Systematic Review.*

Randomized controlled studies and systematic research reports were evaluated using Scottish Intercollegiate Guidelines Network and Jadad checklists. The search yielded 136 articles addressing four different fields of medical and psychophysiological applications of EPC (GDV). Among them 78 were rated “high” on the two conventional checklists. **5303 patients** with different problems were compared to more than 1000 healthy individuals. Conclusions: (1) The software and equipment EPC/DV-complex is a convenient and easy-to-use device, easily allows examining patients with various pathologies and, therefore, offers a wide range of applications. (2) The GDV method has shown itself to be very fast (i.e., it is an “express-method” for studying states of the human organism). (3) Our review has revealed that GDV method can be implemented as an express method for assessment of treatment procedure effectiveness, evaluating emotional and physical conditions of people, and in many other fields.”

- In 2008-2010 twenty three (23) papers were published in per-review Russian and international journals and 97 papers in the Proceedings of different conferences.

Let us see what is good and what is bad in Energy Fields.

Healthy strong condition



This field is uniform, without brakes, holes, strong out-bursts, of the optimal size. This is an apparently healthy person in a good mood state. This condition was achieved by a person after two weeks of exercises and meditation.

Fig.1. Healthy HEF.

At the same time we understand that it is not so often you may find people having absolutely no health problems. These problems may be compensated at the moment – with appropriate diet, life style, medications, but anyway they will be presented at the Energy Field. We may consider these people as apparently healthy, with appropriate treatment all their problems would be balanced and people would have an active healthy life. Please see a couple of examples of this kind below. Arrows indicate the areas of attention.

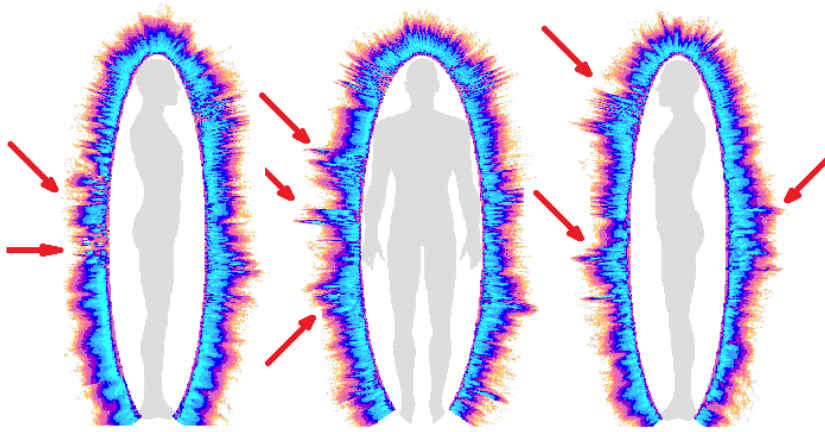
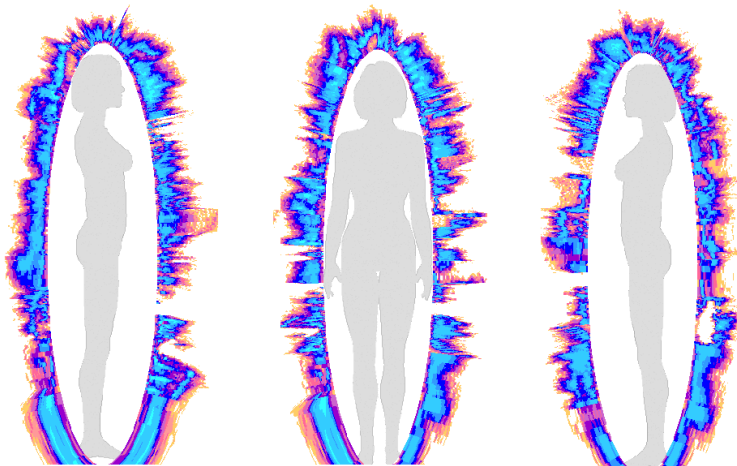


Fig. 2. HEF of a person with problems.

Health problems



As you see from these images, there are a lot of holes in the Energy Field, the overall contour is uneven, a lot of jiggering in the head area. This lady has a lot of health problems which need attention of a doctor. In particular, please, pay attention to the solid blue band in the lower leg area. This is an indication of the bad condition of the vines on the legs.

Fig.3. HEF of a person with health

problems.

Experienced person can make detailed analysis from the images of Energy Field, but this needs a special training.

As you see, the difference between Energy Fields of apparently healthy people and people having chronic health problems is very faint. Only specialist having special training can give health analysis based on the Energy Field images. For this he or she needs to use a lot of information from other programs. The aim of the GDV instrument – is to give an impression of your Energy Field and follow up its development in the course of different exercises and treatment.

For example, you may take your image before and after sport exercise, meditation, pray, musical performance and see the effect of this process to your condition. You may see transformation of the Energy Field of an orchestra conductor before and after symphony performance. As you see, artist spent a lot of energy for the performance.

From many years of experience in using Energy Field analysis we may conclude that the aim of any therapy, exercise or treatment should be improvement of the Energy Field image. This is a clear indication of the positive effect of a therapy. This may take some time – we should not always expect immediate effect, but in long-run Energy Field should become uniform and balanced.

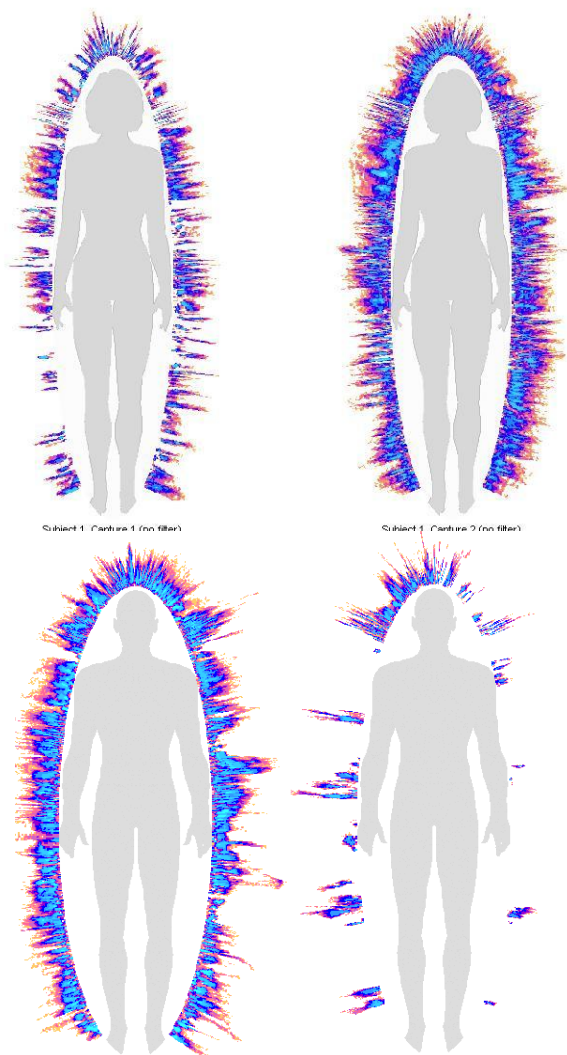


Fig.4. HEF of a person before and after a course of acupuncture.

At the same time very big Energy Field is not always an indication of good health. As any health related parameter, the Energy Field should be in some range. This situation may be tricky – only specially trained professionals may detect serious health conditions like cancer, cardio-vascular problems and the like. A system of Internet-based health analysis is under development

Stress Level evaluation

Stress is a complex factor that has both an emotional component (anxiety) and a somatic component that results from prolonged exposure to permanent anxiety. Stress has very strong impact on the Energy Field. Images look very specific. Let us see several examples.

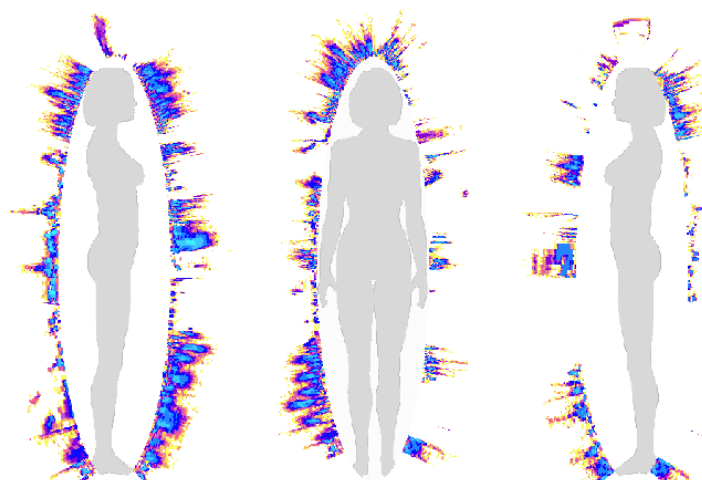
As you see the image is very disordered and hollow. This has nothing to do with health condition, but permanent stress and anxiety may have very negative implication to health.

after symphony performance.

Through the utilization of special software, it is possible to make a quantitative assessment of the anxiety and health index on a 10 point scale.

Fig.6. HEF of a stressed person.

Fig.5. HEF an orchestra conductor before and



Altered State of Consciousness

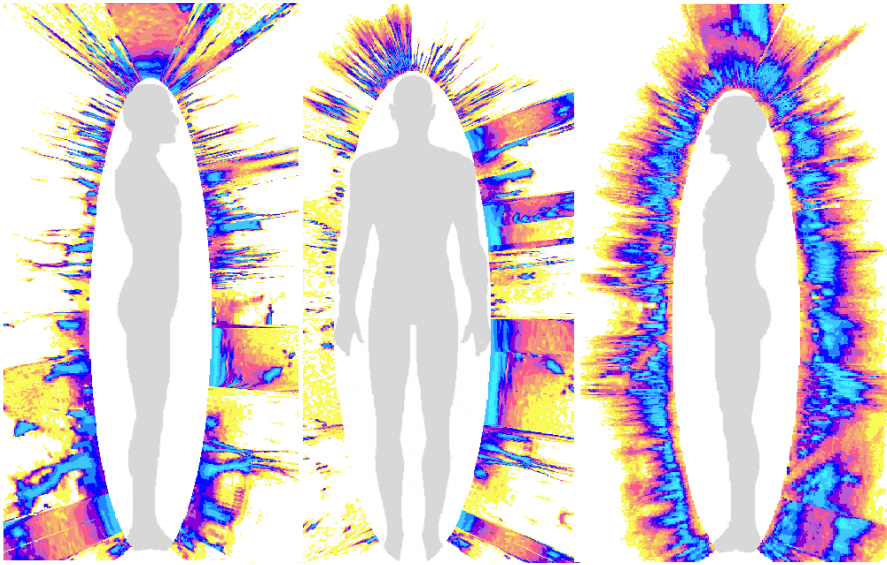


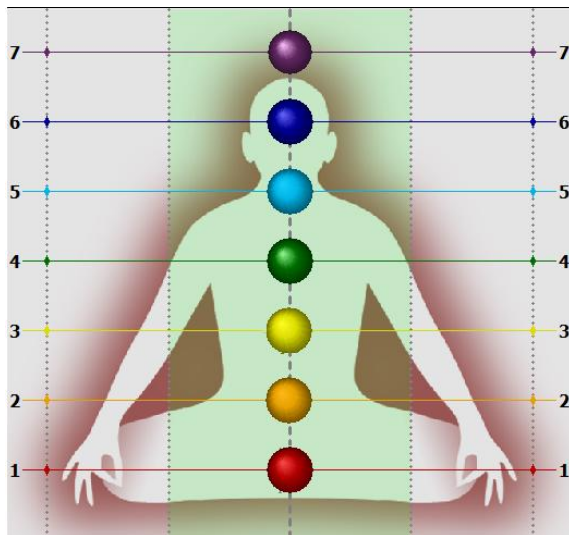
Fig.7. Energy Field of a person in ASC.

This is a very specific condition of a person originated from several situations: from one hand, deep meditation, pray, highest level of creativity, and, from the other hand, the influence of psychedelic drugs, narcosis, hypnosis, external mental influence and possession. In most cases Altered State of Consciousness has specific representation on Energy Field. As we see from this

example, in ASC images are strongly distorted, left and right side is not balanced, the overall appearance is clearly different from the normal conditions. Altered State of Consciousness is a topic of special consideration of neurologists and psychiatrists.

Chakra Measurement

According to Eastern metaphysical theories and principles of Ayurvedic Indian medicine, there are seven “Chakras” or integrated energy centers that are considered to affect physical, mental, emotional, and spiritual well-being. These energy “disks” are positioned or embedded into the spinal column at various locations starting at the coccyx and rising to the crown of the head. Each Chakra is considered to resonate at a different frequency level. With new GDV software, it is now possible to quantitatively estimate the energy of chakras and graphically display their level of activation, and indicate whether this level of activation is above or below the level found from large



numbers of subjects.

The most important in evaluation is Chakras distribution. Ideally they should be aligned along Sushumna – central line of a spinal cord (fig.8). But it is not easy to find situation like this – typically chakras are shifted from the central position.

Fi.8. Ideal Chakras distribution.

In this case several Chakras are mis-aligned and their size is small. When people have strong stress, depression, very bad mood, chakras may be totally out of order. Chakras circles are small and situated far away from the central line.

In Chakras evaluation both position and size are significant. Chakras analysis usually is more related to psychological and spiritual condition of a

person then to physical. For example, for the image below (fig.9) we may tell that this person is very well grounded (Chakra N1 is strong and centered), have an active emotional life (heart Chakra N4 is strong), but her spiritual development is very chaotic (upper Chakras N 6 and 7 are small and out of order). Some problems with reproductive system (Chakra N2). Together with Energy Field analysis this type of analysis may give you good evaluation of a person' condition.

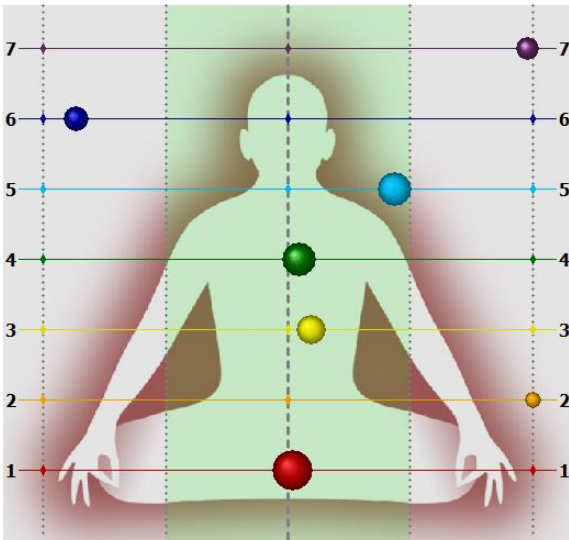


Fig.9. Chakras distribution.

In Ayurvedic texts you may find description of different properties associated with Chakras.

**Monitoring Energy State
Energy Testing**

As we've seen above with GDV instrument is possible to follow up transformation of Energy Field in the process of treatment, exercise, meditation or any other activity. We have another way how you may do this – by using the “Monitoring Energy State” mode. You may check the influence of different subjects to your Energy Field, for example, different products or medications. For this you should take tested product (food, medication or potential allergen) in the right hand and see the reaction on the

graph. If the line goes down – reaction of your Energy Field is negative; if the line goes up – this is a product for you!

This way you may select gemstones or jewelry the most beneficial for you or for other people, select appropriate medication, food, water and avoid wrong products. Just by selecting appropriate food and water you may greatly improve your health. Many people react to hidden weak allergens, which may be an ordinary products, smells or subjects in the environment. It is possible to find these allergens by a special blood test, but this may be done only in a special laboratory. With GDV instrument you may do it for yourself, your friends and relatives at home.

Person was sitting before the computer screen, finger on the GDV instrument electrode, and different sound and images have been presented on the screen. Between two images of different content it was a neutral blue color screen. At the graph below you may see clear reaction of a person. With Rock Music signal dropped down – it was negative reaction after beautiful Classical Music – but then slowly increased (it was a yang girl used to rock); With negative images signal dropped down even more, and the lowest response was to the image of the War horrors; the highest reaction was to the Holy Songs and Pray.

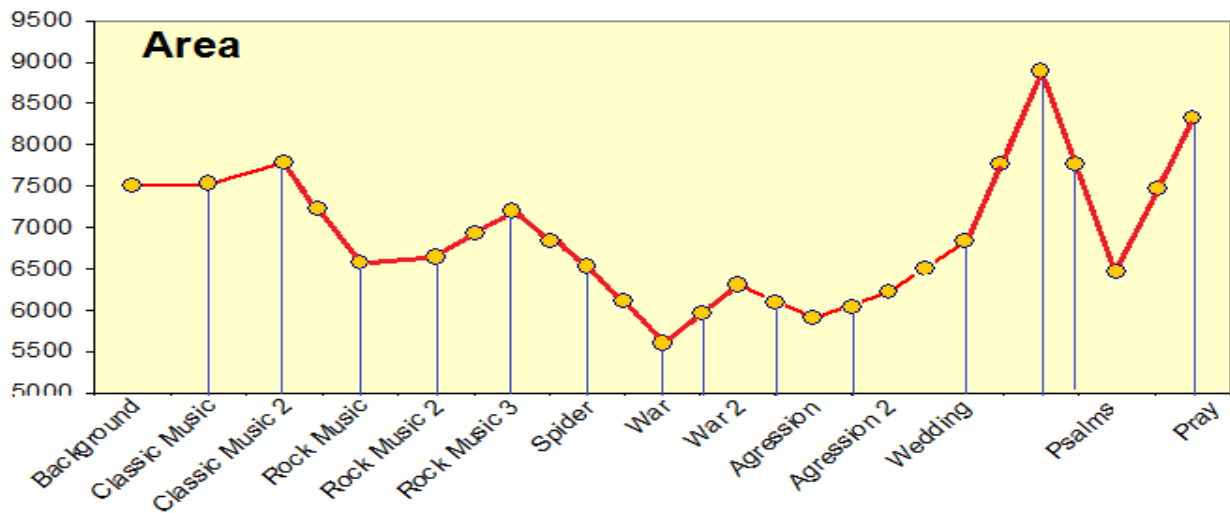


Fig.10. Change of HEF in an experiment.

Monitoring Environment

GDV instrument with “Sputnik” antenna allows you to monitor Energy of the Environment. This may be interesting for several aims:

1. Testing different places looking for places with calm and turbulent energy.

2. Testing Energy situation in different places depending on the position of sun, moon, time of the year, etc.
3. Measuring energy in the Places of Power – both natural and man-made – temples, sacred places, ancient cities, etc.
4. Testing Geoactive Zones, in particular, Geopathic Stress Zones.
5. Detecting the influence of emotions and focused attention to the environment.

It is well known that people feel differently depending on environmental situation. In some places you sleep as a baby and wake up full of energy; in other places you have wonderful dreams and travel in beautiful places while you sleep. But already since thousands of years, the existence of specific locations where people do not sleep well, get sick more easily, or where performance is lower has been empirically known. What is the difference between all these places? Very little is known in Western science. It is clear that the phenomenon is composed by combinations of different causes. This is a combination of the influence from the Earth – underground anomalies, hollows, water streams; gases in the atmosphere, both natural and industrial; electromagnetic background; and the influence from the Universe, Sun, Moon and Cosmic rays. At the moment it is practically impossible to distinguish between all these factors, so we need a common denominator to evaluate the overall situation in the particular place. Only rudimental evidence is available today, if such zones could be measured using accepted physical apparatus.

GDV instrument gives you such an opportunity. Many years of research confirmed the idea that it allows to evaluate the Energy situation in the environment. Expeditions to different parts of the world: Peru, Colombia, India, Myanmar, Siberia, and many others demonstrated sensitivity of the instrument for evaluating environment. Scientific background has been developed and published in peer-review journals, patents have been granted in several countries, and now this instrument has become available for public use. In the Geoactive Zone variations of the energy may be very high. You may detect the change of energy during sunrise and sunset (see graph below), or coming under storm. This way you will see your own reaction to the changes in environment.

Measurements conducted during religious ceremonies, yoga meditations, public lectures, musical performances demonstrated that the signal of the Sensor statistically significantly changes during measurements and these changes are correlated with the course of event. Let us discuss some examples.

03 August 2008 Dr Masaro Emoto had conducted the ceremony of blessing the water at Olkhon Island on lake Baikal in the South-Eastern part of Siberia. Graph of Fig.3 demonstrate time dynamics of signal amplitude and Intensity recorded from antenna in power units which characterize the power of a signal. Arrows mark different stages of a ceremony.

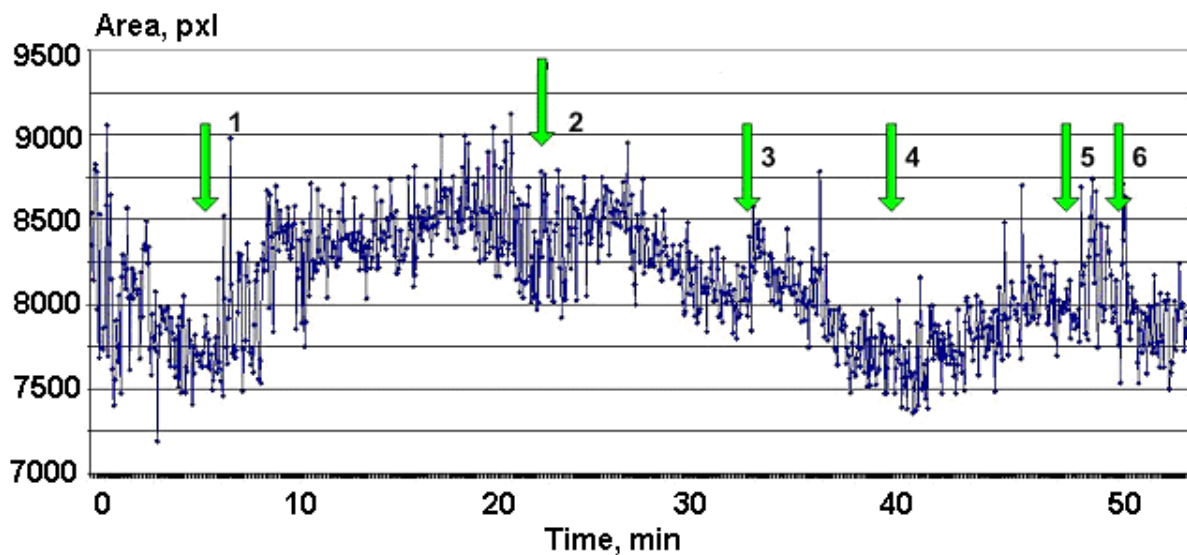


Fig.11. Time dynamics of the “Electrophotonic Sensor” during Dr. Emoto ceremony.

1. Beginning of ceremony. Explanations by Dr. Yasuyuki Nemoto, Secretary-General of the Ceremony and Assistant to Dr. Masaru Emoto. Big group of people came to the shore to participate in ceremony. 2 – Beginning of first meditation led by Dr. Nemoto and Irina Pantaeva. 3 – Presentation by Dr. Masaru Emoto. 4 – Dr. Emoto begins blessing of the waters with collective meditation. 5 – Dr. Emoto sings a song and offers all the people to join him. 6 – The End of the event.

As we see from the graph, all significant moments in the ceremony were followed by picks of the Area. The gradual decrease between points 2 and 4 might be explained by people's gradual loss of their intense concentration. Variations of Intensity graph correlate with the moments of ceremony, but not as precise, as Area graph. Other parameters had smooth character of variations.

13 and 14 September, 2008 in Los Angeles a series of measurements have been conducted during Reconnection Healing workshop led by Erick Pearl and Dough DeVito.

Fig.4 and 5 demonstrate time dynamics of the Antenna sensor parameters for the first and the second day of workshop with marked moments of interest.

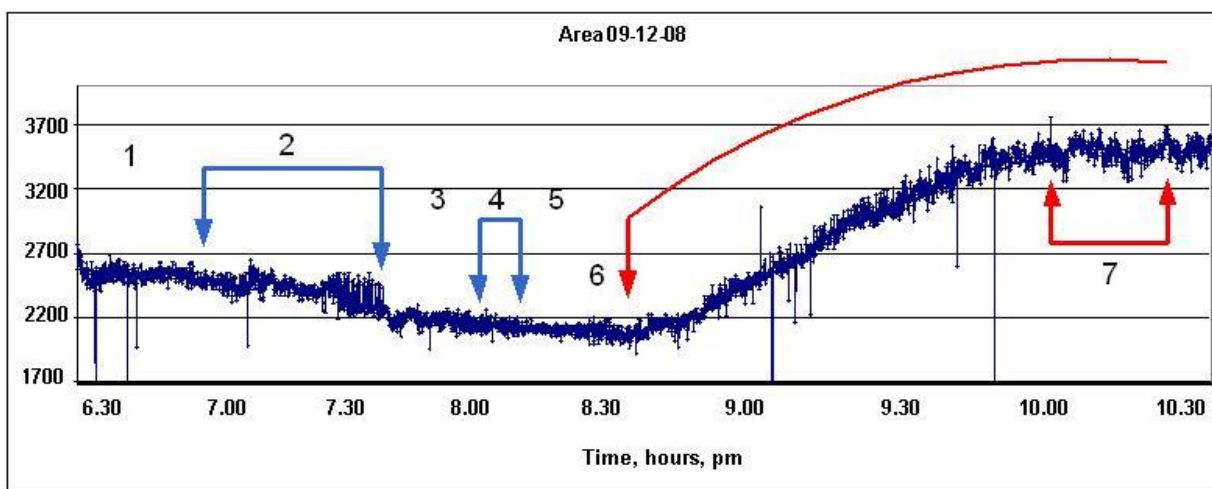


Fig.12. Time dynamics of the “Electrophotonic Sensor” parameters for the first day of workshop (September 12, 2008) with marked moments of interest.

The most interesting moments of the presentations 09/12 were as follows:

19.31 - Doug DeVito on podium “Essence Lecture” and then introduces practitioners – jump in Intensity, strong variations in Area. (sector 2).

20.35 - Eric arrives – increase in Area, which lasts till the end of Eric’s presentation (~22.10). Variations at Intensity curve during different phases of presentation. (sector 6).

22.10 – 22.31 Eric recaps and summarizes + conveys practical processes for day 2....always laughter and then concludes. – strong peaks at Intensity curve. (sector 7).

Parallel measurements at this workshop were conducted by the group of professor William Tiller with a special PH water sensor [7]. They were able detecting the change of signal during speaker on-stage presentations to the audience, which correlated with our data.

A series of experiments with musical performance were conducted. The one discussed in this paper took place at the Children’ Music School named after N. A. Rimski-Korsakov in St. Petersburg on May 22, 2009. A selection of pieces from four stylistic periods (Baroque, Classical, Romantic, and 20th-Century) has been performed by Dr. Ildar Khannanov. It has become apparent from the graphs, received from the “Electrophotonic Sensor” that the levels of signal distinctly vary from style to style. It was possible to compare elements of musical form with the segments of the graph. For example, the graph of area presents the following trend for the opening page of Piece No. 1 in Schumann’s Kreisleriana mirrors the melodic directionality. The higher the melody reaches, the more intense is musical condition, the smaller is the area of the signal. This comes in strict agreement with other observations presented above.

At the same time it was found that the “Electrophotonic Sensor” reacts to the change of the environmental geophysical conditions. Field testing at the Far North of Russia, in Venezuela,

Colombia, England demonstrated that the instrument is sensitive to the change of environmental parameters.

For example, in Novosibirsk, Russia, during Sun Eclipse 1 August 2008 six “Electrophotonic Sensor” instruments positioned in different locations of the area recorded statistically different signal in different phases of sun eclipse. Statistically significant difference of readings before and after with probability 99.9 ($p < 0.00001$) both for Area and Intensity was found. Fig.7 demonstrates time dynamics of the signal from one of the instruments. Arrow signifies the moment of total sun eclipse.

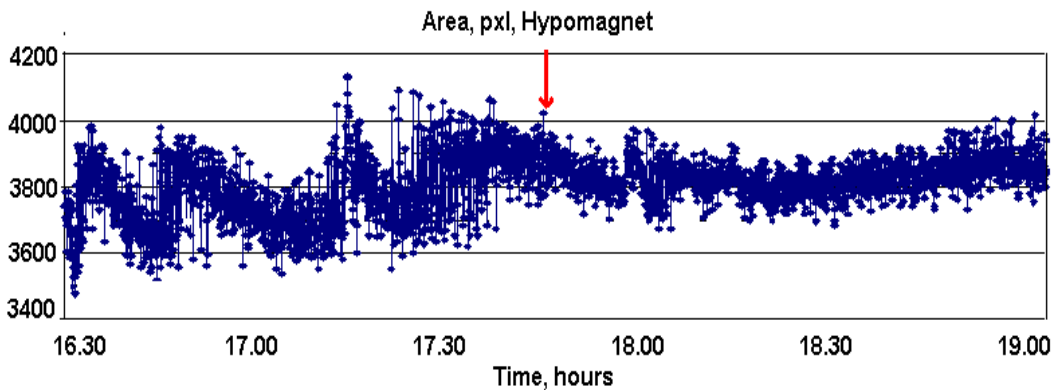


Fig.13 Time dynamics of the “Electrophotonic Sensor” parameters before and after Sun Eclipse in Novosibirsk 01 August 2008.

In August 2007 we participated in a trip to Peru. Two shamanic ceremonies were held during the trip. One was held at Amante Island of Titikaka Lake in the morning on the top of the hill. When we tried to turn on the equipment, all the batteries were found to be empty. The batteries were replaced for fresh ones the previous night, but at the top of the hill the charge was totally gone. Second shamanic ceremony was held at the bank of Urubamba River nearby Cusco. Fig.8 demonstrates the graph of parameters recorded during the ceremony (fig.14).

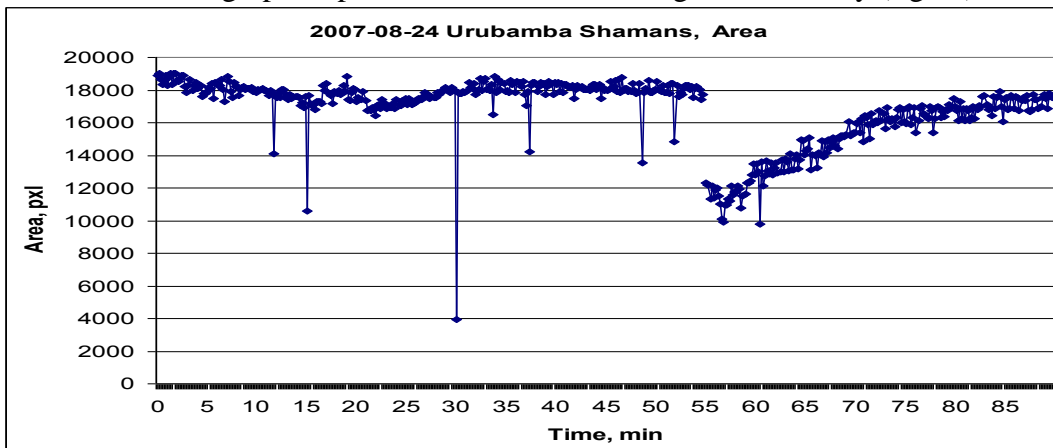


Fig.14. Time dynamics of the “Electrophotonic Sensor” parameters during shamanic ceremony in Peru 24 August 2007.

As we see from the graph, in the process of ceremony parameters change dramatically. It is difficult attribute these changes either to the emotions of the people or to the environmental conditions. Ceremony was held about 50 meters from the river, weather was mild, slight wind was blowing, and people were standing at some distance from the sensor. Unique character of this experience did not allow repeating it.

Similar unusual recording was done in the crop circle in England (fig.15): outside ebergly was quite stable, while inside the crop circle it was increasing all the time of measurements.

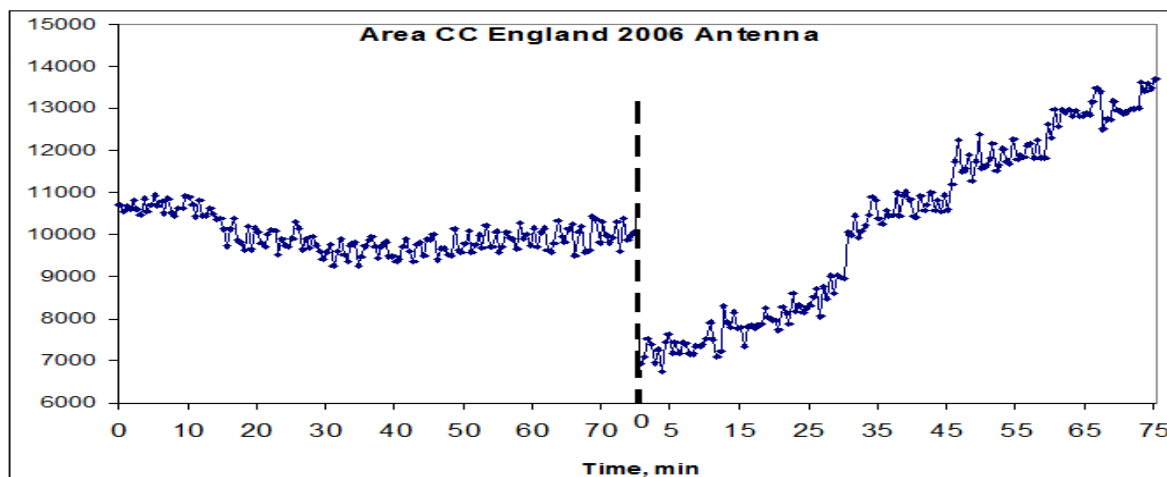


Fig.15. Energy variation outside and inside the crop circle in England in summer 2006.

Discussion

As we see from the presented data, experiments allowed recording both the individual and collective emotional excitations. A lot of experimental data should be collected to make results presentable and publishable. Measurements may be done in a theater, concert hall, church, lecture auditorium. It is interesting to take measurements during sport event. But for one single group it is difficult having many different experiments, we need collective efforts of researches from different countries. The advantage of this approach is that any researcher operating with EPI/GDV Camera may take part in research.

We may construct several models explaining observed effects – from chemical and physical ones to quantum electrodynamics and esoteric. From our point of view this is not important at the moment. First of all we need to collect a big database of observations in different situations by several research groups.

We should take into consideration the following ideas of prof. Tiller [2009]:

“The periods of audience-focused attention upon the on-stage speaker signals that group entrainment leading to significant growth of group coherence is occurring. This leads to high information production rate events,

Macroscopic spatial information entanglement due to simultaneous use of multiple measuring instruments appear to be generating reduced contrast in the magnitudes of various event signatures. This probably occurs via the addition of out-of-phase vector components (a type of data randomization)

As a closing remark, if all the subsystems of the experiment are included in the analysis, it certainly strengthens the statement regarding “only trends” from our experimental measurements can be expected to be meaningful at this time. Further, with Dr. Korotkov’s team making experimental measurements in the same room as us, one should expect information entanglement to occur between their measurement system and ours”!

Scientific background

What is energy?

Energy (from the Greek *enérgeia* – action, activity), is a general quantitative measure of any type of movement, activity and the interaction of all types of matter. Energy in nature does not come from nothing and does not disappear; it can only be transferred from one form to another. The concept of energy binds together all natural phenomena. But the possibility of accomplishing work is also called energy.

Just as there are different forms of the movement of matter, there are different forms of energy: kinetic and potential, mechanical, electromagnetic, nuclear and so on. These divisions are generally well-known. So chemical energy is made up of the kinetic energy of the movement of electrons and the electrical energy of the interaction of electrons amongst themselves and with atomic nuclei. Internal energy is equal to the sum of the kinetic energy of molecular movement

around the centre of body mass and the potential energies of the interaction of molecules amongst themselves.

The theory of relativity shows that the energy E of the body is inextricably linked to its mass m as in the equation $E = mc^2$, where c is the velocity of light in a vacuum. This means that in any amount of mass we have huge energy potential. The best prove is an atomic or nuclear bomb where from little mass we directly extract energy.

Any body possesses energy, and this energy can transform from one type to another. Human body has tremendous resource of energy, which may be used for physical, emotional or mental activity. We accept this energy from food, water and light. These are the main resources of life.

Biological life depends on using the energy of photons from the sun. This energy is converted into electron energy by photosynthesis in plants. Through a series of transformations in complex chains of albuminous molecules this light energy is converted into our body energy. Thus, biological life is based on light energy, and organic compounds serve as the working material for the conversion of this energy. The basic ingredients for all conversions are water and air.

Consequently, we are all children of the Sun, living on the light of the world, and we ourselves emit light!

According to classical physics, the energy of any system is constantly changing and can assume any value. According to the quantum theory, the energy of micro particles, whose movement occurs in a limited area in space (for example, electrons in atoms), adopts a discrete series of values. Atoms radiate electromagnetic energy in the form of discrete portions – light quanta, or photons.

The GDV instrument measures electron densities in human systems and organs, as well as the character of the stimulated electron currents. These electron densities are the fundamental basis of the physiological energy, so we can say with confidence that **the GDV instrument makes it possible to measure the body's potential energy reserve.**

What is Human Energy?

Research converging from many fields of investigation indicates that the body is a complex energy system, rather than the mere clockwork machine of biological gears and parts that is often espoused in conventional medicine. Examples of energy transmission within the body are *metabolic energy* conversions of fats and sugars into ATP (adenosine-tri-phosphate), *bioelectrical energy* triggered by charged ions which influence the heart, nerves and brain, and *biophotonic energy* from ultraviolet biophotons which are located in the nucleus of cells.

A precise definition of what we understand as "Energy" in relation to biological systems is a critical requirement, if we are to successfully incorporate into a Western scientific paradigm those complementary medicine approaches that are based on the Oriental notion of "energy transfer." Misuse of the term "energy" leads to misunderstanding and subconscious rejection of useful, practical applications. The latest biophysical quantum concepts can, however, provide a conceptual understanding of the "energy transfer" mechanisms in biological systems at the organism level. These concepts create a basis for the biophysical explanation of Oriental notions of energy meridians, channels and acupuncture points.

The circulation and transformation of energy in biological systems provides the basis of life on Earth. Electron-excited states in complex molecular systems are the main reservoir of free energy in biological processes. These excited states are continuously supported at the expense of electron circulation in the biosphere. The main "working substance" is water and the energy source is the sun. A part of these electron excited states is expended for the support of current energy resources in the organism. A part can also be reserved for the future, as it happens in lasers after the absorption of the pump pulse.

In other words, the notion of "energy" transfer, characteristic of the ideas of Eastern medicine and alien to most people with a European education, might be associated with the transport of electron-excited states through molecular protein complexes.

The concept of a biological field

After the first experiments of Gustav Fechner, it became obvious that psychology is inextricably linked with physiology, that body and soul form a continuous and inseparable entity, a unified system that defines this particular human being as an individual in his/her social interactions, psychological and physical realities. When we accept the idea of a multilevel structure of a human being we come to understand the inseparability of the psychological and the physical and the physiological parts. We may represent this connection by means of a simple diagram:

Soul => Brain => Nervous system => Physiology

or, in other words:

Spirit => Consciousness => Soma

Only when a person lives for his/her soul, enjoying the company of friends and relatives, enjoying his/her occupation, he or she can truly appreciate life, in all its fullness and perfection. That is why the concepts of spirituality and metaphysics inevitably penetrated the contemporary Occidental science and stimulated profound discussions at professional scientific forums.

“Psychophysicists should not try to avoid the concept of a soul. Soul incorporates intellect and mind, as well as the most important thing – the experience obtained from phenomena of the world around us... In other words, the difference between a professional and a specialist lies in the ethical core of the individual.”

This quotation is from a lecture by V.A.Ponomarenko, M.D., Professor, Member of the Russian Academy of Education.

The accumulated experience of the past years supports a conclusion that the concepts of spirituality and physiology can be usefully reflected by studying of the biological field. The theory of biological fields developed by Alexander Gurvich in 1944 soon will have its seventieth birthday. Following the use of this term after by A.G. Gurvich, we use the concept of biological field not as a metaphysical abstraction, but as a measurable psychophysical object. The GDV instrument is one of the several possible ways of studying a biological field.

The biofield of the organism has a holographic structure, but it does not represent a constant, rigid formation – rather, it is a living, fluctuating, breathing cloud, concentrated in a particular area of space, but not limited by any rigid borders. The glowing halo around the body of an individual or his/her particular organs, for example an image taken from a finger, remains constant and stable for a certain period of time and, therefore, two images taken with only a small delay will look almost the same. But now the individual starts thinking about how an upcoming meeting is going to take place – and the glowing image changes, it shivers and a gentle wave passes throughout the structure, touching its every section. They are like clouds – on a gloomy day clouds are stable, but we can detect changes even within this stability. Therefore, the biological energy of humans reacts to mental and emotional activity, and it can be useful for psychophysiological diagnostics of an individual's state.

Numerous publications by scientists from different countries have shown that the analysis of the Energy Field images allows registering the radiation activity from the biofield of any organism. GDV imaging provides a convenient means for observing the dynamics of changes of an individual's state during his/her life, or under the influence of a therapy. These dynamics reflect the ‘breathing’ of the organism's biological field, in both physiological and psychological aspects. The nature character of the GDV imaging changes reflects thoughts and emotions of a person. To date, the GDV method is currently among sensitive and precise methods for monitoring the state of human health.

In quantum physics energy field can be represented by a stress-energy tensor which is not in Einstein-Minkowsky space-time; it is to form structures in physical reality but only partly in physical space-time. Modern quantum dynamics approach to understanding Energy Fields may be found in [Korotkov K., Levichev A. The 3-fold Way and Consciousness Studies, http://www.chronos.msu.ru/EREPORTS/korotkov_3-fold.pdf]. It is too complicated to present these ideas here, so we refer all interested readers to that paper.

Energy fields, meridians and chakras

For thousands of years, health and longevity has been the subject of extensive research in all of the world's civilizations. Doctors, practitioners and astrologers tried to penetrate the mysteries of life and death. They developed concepts trying to explain illness and ageing, temperament and character. The majority of these have been lost in the sands of time, and only faint echoes have reached us through scraps of manuscripts. But the manuscripts which did reach us are based on principles which differ from the Western materialistic outlook. These are the principles of the Earth, the energy of trees, grass and people. During the expedition to the land of the Sierra Nevada Indians in Columbia, we spoke to them in the language of energy, and they accepted us, opened their soul and sanctuary to us. So when we speak about energy fields, about meridians and chakras, we are using a language created by other civilizations – a language which, on an intuitive level, hands down ideas which have been proved by the practice of thousands of years.

The GDV instrument bridges the gap between logical Western science and the intuitive science of the Orient. It makes it possible to present the same phenomenon in different languages, in different systems, and to look at the same phenomenon from different points of view.

If you are familiar with the principles of Traditional Chinese Medicine, if you accept the ideas of meridians, energy channels and energy fields, then the GDV instrument is for you – particularly since the concept of electropuncture is already well integrated into modern Western medicine. And in any language it is possible to speak of energy measurements and of the energy potential of organs and systems. We hope that the data obtained through the GDV instrument broadens that paradigm, giving it new content and a new language.

The influence of mental, emotional and spiritual processes on the Energy Field

With physical devices we measure physical processes, i.e. processes of the material world. That is why we can only measure the **influence of consciousness on physiological or physical processes**. This influence is conveyed along several channels, primarily through the cerebrum, which takes an active part in thought and emotion processes. The brain produces a cascade of chemical substances which influence physiological processes, and also influences activity of the central and autonomic nervous systems.

Any mental, emotional and spiritual processes immediately reflect on the Human Energy Field. This is one of the most sensitive methods for evaluating subtle processes of human consciousness.

For many years researchers in different countries using Quantum Bioelectrography approach have been measuring healers in Russia, Germany, the USA, and Slovenia, Candamblier priests in Brazil, shamans in Peru and Siberia, and Chinese Qi-gong masters. All these people transform in **altered states of consciousness (ASC)** in the process of practice and this condition is clearly presented on the images of Human Energy Field. ASC are the particular states, which a person enters during meditation, mental training, religious ecstasy, or when under the influence of drugs, psychedelics or anesthesia.

We support the idea that consciousness is a category of a different space-time continuum which does not belong to the material world. These principles of working on consciousness are to a large extent modeled on the quantum mechanics paradigm, but clearly this is only a superficial analogy. We are still a long way from understanding the working mechanisms of consciousness, taking into account not only its individual manifestation in each person, but also its collective processes. Human consciousness is a process of interaction between a person and a collective field, through which new ideas are formed, and the field is the place to which they return, making a contribution to the collective mind of humanity.

We have already left behind the idea that the brain produces consciousness like the liver produces bile. The brain is better presented as a receptacle which reacts to the signals of the surrounding space, including signals from the collective field. Hairs can act as the antenna of these signals, as they react to the external field and transmit these signals to the cutaneous covering, possibly with some intensification.

The heart is another organ which takes part in the processes of consciousness. This is not merely a pump for blood, but an organ which regulates the blood flow and, accordingly, oxygen, in all areas of the human body. There is data showing that after a heart transplant, a person takes on many behavioral characteristics of the donor. So we can conclude that the heart, at least, has a memory, i.e. it takes part in consciousness processes.

Modern science has only just begun to research consciousness. Following the remarkable insights of Fechner, Helmholtz, Jung and Freud, a significant process was set in motion to study the brain's neuron mechanisms, especially using modern methods of computer mapping. Yet we are still only in the early stages of the process of researching consciousness, and the most important thing at the moment is the set of experimental data. Their meta-analysis at a specific stage will provide an awareness of new concepts and lead us toward a new understanding.

What does the GDV instrument measure in physical terms?

The GDV instrument is based on the stimulation of photon and electron emissions from the surface of the object. The stimulation is provided by transmitting short electrical pulses. In other words, when the object is placed in an electromagnetic field, it is primarily electrons, and also to a certain degree photons, which are 'extracted' from the surface of the object. This process is called 'photo-electron emissions' and it has been thoroughly studied with physical electronic methods. The emitted particles accelerate in the electromagnetic field, generating electronic avalanches on the surface of the dielectric (glass) plate. This process is called 'sliding gas discharge.' The discharge causes glow from the excitement of molecules in the surrounding gas, and this glow is what is being measured by the GDV instrument. Voltage pulses stimulate optoelectronic emission, while intensifying this emission in the gas discharge, amplified by the electric field created.

Conclusions

Presented above descriptions demonstrate basic principles in using GDV instrument. Practical experience and different experiments will give you full confidence in using the GDV instrument, and you will find a lot of interesting and practical applications for the well-being of yourself, your family and your friends. Results allowed to start a new scientific line of the instrumental investigation of the geoactive zones. In this field culturological aspect of the problem is of particular interest. Idea that from the ancient times historical monuments have been correlated with the "places of power", areas, having some specific geophysical properties, specific influence to the human condition, has been experimentally approved.

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