

## Mysteries of Megaliths

### Possible Mechanisms of Biological Effects Observed in Dolmens of the North Caucasus

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Megaliths (from Greek Megas - great and Lytos - a stone) are usually called the erections (constructions) from huge stones or processed stone plates connected without any mortars. There is an opinion in modern archaeology that these constructions appeared in the late Stone Age as they suppose (some 4-3 thousands years B.C.) are the very first recovery of monumental architecture of mankind. The



zone of megalith distributions covers different continents, climatic and landscape zones from Scandinavia up to the North Africa and India. The fact of such a widespread of megaliths according to the opinion of the leading Russian researcher of the Caucasian dolmens V. Markovin confirms the principle of universalism resulting from common regularities of the

development of human psychology, creation of world outlook systems, conceptions about life and death, eternity and stability of existence. **(Markovin V.I.-1997)**

The classification of the main species of megaliths is looked in the following way. All the so called "funeral houses" are megalith-like buildings assembled from processed stones or hollowed out in monolith mountains and they are called dolmens. The term was taken from European archaeology and is concerned with as its Celtic words are made up (Tol - a table and Men - a stone). But a lonely placed megalith is named as menhir. The word came from the Breton root of the French language (Men - a stone, Hir - long). Constructions from plenty nearly placed menhirs are called cromlechs (Crom - rounded, Lech - place). The classical example of cromlechs is Stonehenge (England).



Erich von Daniken the author of the book "Stone Age was different" which was published not long ago in Russia denotes in it two more species of megaliths:

-Lanements-stone lanes stretching for some kilometers...

-Stone circles.

*(It should be noted that the main part of dolmens is sandstone-built partly consisting of quartz. Quartz (SiO<sub>2</sub>) - is a mineral having very interesting physical qualities in particular piezoeffect. It is able to generate potential difference (electric current) under mechanical deformations (pressure and tension) and also to maintain constant oscillation (stabilization of frequency) and its usage in radio electronics is based upon these properties. Under the influence of electric current quartz crystals generate ultra sound (inverse piezoeffect). It is established that under mechanical deformations besides current, quartz is able to generate radio waves - the author).*

Dating of megalith buildings is a special question. It is impossible to establish the age of stones by radioisotope method using isotope C<sub>14</sub> as this method can be used only to appreciate the age of objects having organic origin (bones, charcoal, materials and others). Dating of dolmens connected with the organic things found inside or near them (bones, remains of tissues and others) is based according to the cute definition of Erich von Daniken "on the artifacts on the basis of second-hand". He also put forward rather convincing evidences that megaliths and later all ancient temples on their places were often built on the places of geological anomalies (breaks of the earth's crust). **(Erich von Daniken. - 2003).** *(For the sake of justice it is necessary to denote on the similar evidences about buildings of new temples on the ruins of the old ones (with obligatory preservation of the old foundation stones on their former place), for example, it is written by Kornelii Tacit in his book IV "Histories"- the author).*

It is confirmed by the legends until now existing in Brittany, for example. The peasants simply believed that those stones were magic as they served to pagans from old times. When Christianity came to Brittany old stones did not disappear together with the old religion. The first priests were clever men and they realized that if the local inhabitants used to worship to stone-idols during thousands of years it would be silly if not dangerous to persuade them that that was a sin. And instead of fighting with pagan stones the priests decided to "tame" them as the pagan priests of other religions did it more than once. It was often enough to carve a cross on the megalith.... **(Muradova A. -1998).**

The idea about the possible connection between the location of megaliths (dolmens) and the breaks of the earth's crust and probability of their biological (psychogenic) influence on the people as a result of this was put forward in 1992 in the book written by Rostislav Sergeevich Furdui from Kiev under the name "Fascination of mystery" and in the following works by this author. **(Furdui R.S.-2001).**

The zone of the North Caucasian dolmens is now considered to be one of the biggest in the world. The territory occupied by dolmens has 480 km in length and in width from 30 to 75 km.

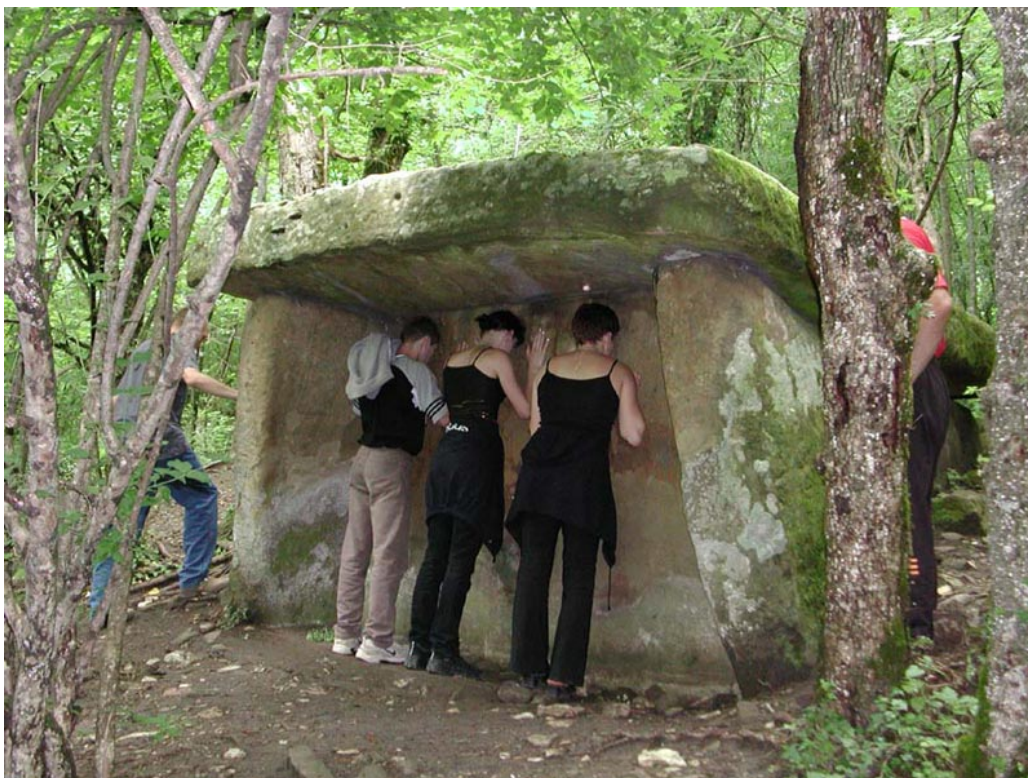
Sorry to say the speed of anthropogenic (human) destruction of these monuments much higher than the speed of discovery of new ones and this leads to their loss for the scientists of Russia and for the mankind as a whole. For the first time Russian scientists began to study dolmens of the Caucasus at the end of century XVIII after the end of the Russian-Caucasian war. In 1994 it was 200 years since the first description of dolmens by the academician Petr Simon Pallas. (P.S. Pallas).

During the past two centuries there were quite enough versions about the origin and destination of dolmens. They were regarded as cult buildings of Aryans, constructions of Cimmerians or the Greek, memorable signs of Vikings who sailed to the Black Sea coast, altars of the Celt, graves of mountaineers who looked for death in them during epidemics, houses of "mythical dwarves" who rode on hares and vice versa, houses of heroes of Kazak epos- "strong peasants' huts". Nowadays there are lots of "advanced" estimates. In order to be convinced of it, it is quite enough to visit site [www.megalith.ru](http://www.megalith.ru) in Internet. Estimates are very fantastic: - from «top-up stations" UFO to

dwelling of vanished atlantes during thousands of years, from ancient observatories and calendars to the meditation places of "clarified" earthmen, the sects of "anastasievs".

In the literature devoted to dolmens there often occurs information about many cases of "wonderful" healing after being near or inside dolmens or after drinking water taken near these

erections. It should be noted that water springs located nearby are constant attributes of those erections. At the end of the last century on Malta there was discovered the complex Mnajdra representing ensemble of three megaliths. It is considered that it has up



till now some special "energy" and during the nights of full moon extrasensory individuals come here for "replenishment". Archaeologists believe that it is here that some wonderful healings took place in the old times. This idea appears when we come across numerous terracotta pictures of human organs with tracks of illness. **(Dzuravlev V. -1998)**. In modern archaeology the similar pictures are called votive that is sacrificial presents brought as a sign of gratitude for healing or as a sign requesting a help, the custom which is widespread up till now in the Christian east and in some European countries. As an example we may name the nunnery of Saint Virgin Mary in Syrian town Sednaye where ancient icon Mother of God painted by evangelist Luka himself is kept. Besides being a doctor by profession he was a passionate artist and up till now is considered to be the patron of all artists. This icon is constantly kept in a massive, closed, silver framework which is opened only once a year – on the day of Saint Luka. Under the icon miniature silver pictures of different parts of human body are placed. **(Nizovskii A. Yu. -2002)**. There are lots of mentions about stone erections having some certain strength in the Bible, in particular in the Old Testament. **(Frazer J.G. -1990)**. There is some mixture of animism with fetishism in the studied medical spells of the ancient Slavs. Some latyr is usually spoken about in the spell (latyr is a stone which is located in an "open country" or in the "sea-ocean"). All spelling poetry-healing is built up around this stone. All kinds of the given illness and body parts out of which it is sent out are listed in details. "Sending out", "sweeping away", "pouring out" of illness is a necessary aspect of Slavic medical spells. **(Gorelova L.E. -2000)**.

In general the theme of influence of ancient archaeological subjects on the state of health of a person is not new as in a fiction so as in a scientific science. Very interesting data were got by the screw of American researchers (toxicologists, chemists, geologists and archaeologists) while studying the temple of Apollo in Delphoi (Greece).

*(Delphoi while in the era of classical Ancient Greece was considered to be the centre of the Universe. In the ancient times there was the so-called "the hub of the universe" (omphalos) (that is the processed lump of marble crowned by two eagles. These eagles were considered by the ancient people as Zeus's messengers, the father of Olympic Gods. Delphoi was devoted to Apollo who is considered not only the son of Zeus but the God of light and "prophecy". One of Apollo's sons was Askelepius (in a roman version –Aesculapius) who is called and nowadays as "the forefather" of doctors. Apollo's temple located in Delphoi was the most respected place in the ancient Greece. The almighty oracle who pontificated through a woman-medium Pythia was in the central part of the temple which was called addition where nobody was allowed to come in. We know about the sacrament of prophesy and the place where it took place from the works of historians such as Plinius, Diodorus, Strabon and Plutarchos. The last one was besides others a lifelong Delphian pagan priest. According to Strabon's descriptions the oracle's location was in a deep cave with a narrow entrance out of which pneuma (gas) was arising. Plutarchos describing pneuma characterizes it as gas having some sweet smell). Water analysis of the springs located under Apollo's temple showed that there were methane ethane and methylene in it having sweet smell that confirms Plutarchos' story. It was proved that there were two breaks of the earth's crust under the addition the so-called Delphian and Kernsk breaks. American anesthetists and toxicologists proved by their works that when people breathed in the vapors of these gases mainly ethylene they had symptoms of trance (which were accompanied by euphoria followed by amnesia). These symptoms coincided with Pythia' descriptions during his prophecies. (John Hale, Jelle Zellinda de Boer, Jeff Chanton, Rich Spiller. 2003. Bliev Yu. 2004).*



About century V B.C. in the ancient Greece a **Asclepius** cult was formed and in his honor people began to build big medicinal complexes, asclepiions, where besides temples there were other constructions. Work with patients began only after purifying procedures, late in the evening, after preaches, after making sacrifices and smoking aromas. The patients were put on the skin of the sacrificed wild boar in the galleries of the

temple. The central moment of this treatment was the healing dream the so-called **accubation**. The patients knew that while sleeping they would be visited by Asclepius who would talk with them, ask about their illness and give advice how to cure it. In the morning they were to tell in detail the priests about their talk and only after that they (priests) began practical healing. Some historians relying on the psychiatrists 'conclusions believe that having been prepared in that way the patients really had a programmed dream. Others, on the contrary think that the saved information about Asclepius in their dreams may be an evidence of using charlatan tricks. They are sure that the priests used opium or its substitutes and then dressed up appeared before the patients. (Vinokurova I. 2004).

By the way, the version about healing properties of dolmens is widespread in the Caucasian legends. From the medical standpoint these healing cases for the most part came to

taking away painful and inflammatory syndromes with the following rising of vitality of the organism to the point of euphoria. It is necessary to say for the sake of justice about many cases of worsening of health near dolmens resulting in appearance of feelings of a motivational fear and anxiety, headache, different vegetative vascular reactions (change of blood pressure, pulse rate, color and moisture of coverlet). The similar phenomena which were observed including the children allow decreasing in the given case the role of the factor of “the first psychological putting» though it is of great importance, no doubt, with the people with unbalanced mind. Nevertheless the local people who had dolmen inside their house told us that domestic animals never approached the dolmen nearer than 2-3 meters.

In 1998 we conducted an experiment on the only preserved dolmen-monolith in the town of Sochi. *(This dolmen is well-known quite enough and is described in detail in the monograph by*



*V.I. Markovin “Dolmen monuments of the Kuban and the Black Sea coast” issued in Moscow in 1998. It is located in the mountainous part on the left bank of the river Godlik near with a mineral hydrogen-sulphidous spring. The rock of grey sandstone where it is carved stretches more than 2 meters and 80 centimeters, its width is 7 meters, and the height over the ground is 6 meters. A small*

*dolmen cell is carved on this rock at the height of 2 meters and 80 centimeters. It has an irregular round form; the front part is sharply cut. The floor of the cell is horizontal and the ceiling is in the form of cupola. The length of the cell is 1,60-1,65 meters, the width in the diameter is 1,90 meters, the height in the front part is 0,94 meters and in the back part is 0,85 meters. The cell is oriented from the north-west to the south-east).* During the experiment ampoules with solutions (0,9% the solution of NaCl, 40% the solution of glucose and distilled water) imitating liquids which are in the human organism in some quantities were put inside the cell of the dolmen. The time of ampoules exposition was from 5 minutes to 24 hours. The ampoules forming the control group were not delivered to the dolmen at all. It was determined that as a result of 24 hours ampoules exposition in the dolmen-monolith some changes took place imparting to the researched solutions properties which under known system of permission could be treated as medicinal. When testing by devices “Prognoz” (Russia) and “Bicom” (Germany) it was shown that the exposed solution had a regenerative effect on the meridian system of a human organism that is they acted as homoeopathic chemicals. The control specimens did not possess such characteristics. (Tatkov O.V. 2001, Tatkov O.V. 2002, Tatkov O.V., Krasulya O.N. 2003, 2004).

From February 2003 researches studying the mechanism of possible influence of dolmen-monolith on some parameters of biological objects were continued together with Moscow scientists: biotechnologists from MSTA and chemists from MSU. Experiments with exposition of the indicated liquids in the dolmen-monolith and some other dolmens were repeated twice with the same volume. The received specimens were studied by spectral methods which included

perturbation equilibrium states of the studied mediums by broadband effect of different fields and measurement of responses to this effect. Absorption spectrums of the researched liquids in optic range (200±1000 nm) were formed with the help of infra-red spectrophotometer SS-2000 M. *(Oscillations in infra-red range correspond to stretched, revolved or bent oscillations of molecules and in general give the conception of a matter structure. In this range very many matters possess some characteristic resonance produced by the fact that the units of molecular system oscillate in one or opposite directions. That is why infra-red range is regarded as acceptable for electro-magnet reflection with good differentiation. The results were counted by method of two criteria optimization of comparative analysis. It means that the analyzed spectrum data were subjected to preliminary nonlinear filtration (and only after that the correlated measure of similarity was used) which did not change their statistic characteristics but it allowed to maximize the new criterion that is a distinguished ability meaning a relative difference of similarity measures between one and the same standard data and different standard data. The similarity measure of spectrum data itself was synthesized by criteria optimization of credibility relation that gave maximization of authenticity distinguishing. Applying two criteria approach nonlinear filtration gains in comparison with linear filtration 10 times against signal/noise).* (Krasnov A.E., Krasulya O.N., Bolshakov O.V., Shlenskaya T.V. 2001, Krasnikov S.A. 2003).



In the experimental water specimens from partly destructed dolmens distinctions from control were not discovered. In the experimental water specimens from dolmen-monolith distinctions from control within the limits of 200 to 250 nanometers (1 nm is equal  $10^{-9}$  m) were discovered. It is known from classic biology that these are physical characteristics of the so-called “mitogenetic” or the rays of A.G. Gurvich, the soviet scientist who in

the 20<sup>th</sup> years of the last century was the first to discover and describe ultra-violet radiation of very small activity (with energy 10-100 quant/sec. on square centimeter) which one cell emits and the other absorbs. Quant with a wave length of 190-250 nanometers is the energetic provider of mitogenetic radiation. Gurvich’s rays are radiation of ultra-short range, they are milliards times weaker than the daylight essential for the cell to be divided. Alexander Gavrilovich Gurvich in addition is the author of the term “biofield” for which he was later greatly discredited by sciologists. The author introduced the term only to explain the fact that any biological object develops no more than as a single whole. (Gurvich A.G., Gurvich L.D. - 1934). *(By now it is known that ultra-violet radiation of tissues and cells of a human organism is in the field of wave length of 190-340 nm. Albumens, polypeptides, carbohydrates are its subtract. Grease is fully deprived of it.*

*Ultra-violet radiation becomes apparent in three main biological effects:*

1. *Cytopathic mirror effect is a distant transmission of information from one hermetically separated cell culture to the other through quartz plate 0, 2-2 mm in width.*

2. *Necrobiotic effect is an emission of ultra-violet radiation by vegetative and animal tissues at the moment of their destruction under the action of chemical agents.*
3. *The third effect is the stimulation of cell division by endogenous ultra-violet radiation. The radiation is considered to be the main condition of mitosis and because of that it got the name of mitogenetic). (Berezovskii V. A., Kolotilov N.N. - 1990).*



It is known that as a primary adequacy defining adaptation of any living organisms to constantly changing factors of environment is some quantity of water in organism, absolute content and ratio of macro and microelements in it. It is determined not only by the fact that 2/3 mass of all living organisms consists of liquid water but by the peculiarities of physicochemical properties of the chemical compound.

Up till now the well-known biologist G.N. Shagin-Berezovskii's aphorism is still alive, "Each of us is only 50 liters of water, having risen to its feet...."

*(A living cell is an ideal system of return connections but any cell is water and the state of this water decides everything in the end. 80% of all man's illness is considered in one way or another connected with unsatisfactory quality of water which is the conductor of information from matter to organism or cell. Water even in its simple chemical compound (2 atoms of hydrogen and one atom of oxygen) has a number of such peculiarities which make it unique in the animate nature. It has a considerable moistening surface. According to the indexes of surface tension allowing water to rise along capillaries 10-12 meters it yields only to mercury. While dissolving ions which entered the water become enveloped with water ions however water being an inert dissolvent as a rule does not enter into a reaction with dissolved matter. Water molecular is a doublet. It means that geometrical centers of positive and negative charges do not coincide and one part of molecular is "more positive" and the other is "more negative". That is why water is a doublet liquid. But it is only at the first sight. But at the second sight water according to Ya. I. Frenkel's hypothesis is a system of four charges that is a quadrupole. It is appropriate to recollect here the hypothesis that water "inherited" the "structural" memory from main building unit of the earth that is silicon oxygen tetrahedron as energetically more profitable. As a matter of fact all oxygen of the earth water and atmosphere was siliceous in the past. In water there are simultaneously several states due to the presence of hydrogen connections between its molecules the energy of those three times higher Van der Waals forces of interaction and this differs it from gases and draws by structure together with solid bodies. It is this circumstance that allowed J.Bernal and R. Fauler even in 1932 compare water structure with liquid quartz. One of the principal regularities of construction and existence of a living being is the presence of liquid-crystal structure which peculiar only to organic world and bio-objects. All membranes of a cell have a structure of liquid crystals. Some*

*liquid crystals are ferroelectrics and hence have piezoelectric properties. The fact that water has internal structure is universally recognized. Some think that it is tetramer  $H_8O_4$  where four molecules are united into compact tetrahedron by twelve "strong" hydrogen connections. At the temperature of a human body a unique state from the biochemistry standpoint is reached that is half of "weak" hydrogen connections become broken. It is thought that this determines equal flow of different reverse biochemical reactions in organism). (Bessonov S. 1991, Kolyasnikov Yu. A. 1991, Agadjanyan N. A., Truhanov A. I., Shenderov B. A. 2002).*

The experiment with 24 hours exposition inside dolmen was carried out with kinds of yeast in different containers (glass, foil and polyethylene), lactate bacterium and bacteria preparations "Colibacterinum siccum" and "Bifidumbacterinum siccum". It was found out that 24 hours exposition of yeast in undestroyed dolmen-monolith gave rise to distinct changes in their ferment (multase and zymase) activity, carrying capacity and antioxidant activity. The rate of yeast activity changes also depended on the container material. Exposition in partly destroyed dolmens did not give rise to such changes. Because of it the further experiments were carried out with undestroyed dolmen-monolith. *(It is known that "laser radiation with wave length of 327nm stimulates reproduction of baking yeast", and "magnet processing of yeast stirs to activity their vital functions and increases barmy ability". The fact that "the surface of a living yeast cell vibrates, on average 1000 times a second rising and lowering 3 nm, approximately the same length has column of 15 carbon atoms when put one on the other, had a special interest for us. Though amplitude of this oscillation is so small that we cannot hear it as the frequency of 1000 hertz is within hearing of a man's ear". ( "Baking and confectionary industry" №9, p.39, № 4, 1986, "Food industry" № 9, p. 57, 1991, "Science and life" № 9, p. 72, 2004).*

As it turned out that 24 hours exposition inside dolmen resulted to lowering culture stability of lactate bacterium towards unfavorable conditions of cultivation (different concentration of NaCl, different values pH of nutrient medium), to lowering of general bacterium activity, at that the level of this lowering was selective and depended on kind of bacteria. Thermophile stability of streptococcus was subjected to fewer changes in comparison with control and Bulgarian bacillus to the most ones. Exposition of bacteria preparation in dolmen-monolith showed that the quantity of micro-organisms after it in the preparation "Kolibakterin" (Colibacterinum siccum) was changed within one order and that was the evidence of insignificant influence of the researched factor on the studied characteristic. The quantity of micro-organisms in the preparation "Biodumabakterin" "Bifidumbakterin" (Bifidumbacterinum siccum) was decreased 100 times after the exposition that was the evidence of the expressed abs copal effect. For the purpose of finding out the nature of acting factor inside dolmen an experiment was carried out and in the course of it ampoule water for injections exposed during 24 hours in dolmen-monolith was added to the solutions of intact ( which was not brought) yeast culture. Expressed differences of activity indexes between experimental and control specimens came out of the experiments that show the transfer of acting factor by water.

*(Property transfer of initial matter to memorizing matter is not necessary through contact (there is information of therapeutic effects which were carried out without direct contact of the sick with medicine). At the beginning of 80-s last century influence of different matters and low-frequency magnetic fields were compared on the volunteers with the help of medicament electro acupuncture test by R.Foll method allowed to medical usage by Russian Ministry of Health. This is the method of electric influence on biologically active (acupuncture) points of organism (which have piezoelectric effect unlike other areas of skin). It turned out that researched matters could be replaced by magnetic field with frequency of their nuclear spin resonance). (Samohin A.V., Gotovskii Yu. V. 2002).*

Specimens of exposed water in dolmens were also studied by geneticists with the help of method of polymerase chain reaction (PCR), which is amplification (multiplication) of short areas of DNA with the help of special ferment DNA polymerase. The efficiency of PCR is determined by many factors but specially by concentrations in reaction mixture of some ions. An amplification of fragment sequence DNA of a man's four genes was carried out, the products of which take part



in regulation of blood pressure (angiotensin-converting enzyme). Three parallel experiments were carried out: in the first experiment for the preparation of reactive mixture distilled water exposed 24 hours in dolmen-monolith was used; in the second experiment distilled water from control specimen was used (control-1); and in the third experiment distilled water usually used in laboratory (control-2) was used. Analysis of results showed the presence of amplification products in all researched specimens. Distinct differences in a quantity of a product were not discovered. It was concluded that the researched factor does not affect on the course of PCR.

There is an opinion that the fact of influencing upon the structure or functions of organism by super weak interactions (regardless of their nature) can be explained only from the position of resonance. (Gotovskii Yu.V., Blinkov I.L. 1998).

*(Effect of resonance in mechanics (physics) means essential increasing of amplitude of forced oscillation of the system on coinciding of external frequency with frequency of own oscillations. Under certain series of events (destructions of bridges, layers of rocks) it can lead to the loss of initial structure though most often this effect is used in a man's activity on condition that system structure is preserved (springing pendulum, tuning fork, radio receiver; analyzer of frequency, violin and so on).*

*In chemistry resonance state is taken up as real existence of some definite matter in the form of some structural forms distinguishing by the method of electron pairs distribution between nucleuses. Transfer of energy to electro charged structural elements of molecular promotes the stabilization of the main state of molecular or ion and this leads to the change of functional groups properties, and as a result to unusual reaction with surrounding chemical matters.*

*The term biological resonance is taken up as obtrusion to certain layer of structurally functional organization of the organism of such frequency of external influence that under which the corresponding tissues stop subordinating to the existing stereotype (pathological and/or physiological) information and begin to function under the influence of*



*defined from the outside regime).*

One of the principal regularities of building and existence of a living being is the presence of liquid- crystalline structure peculiar only to organic world and bio-objects. All



membranes of the cell have structures of liquid crystals. Some liquid crystals are ferroelectrics and therefore have piezoelectric properties. Skin areas and corresponding acupuncture points have in comparison with other tissues piezoelectric effect that is the ability to generate electric potential difference when mechanically deformed and vice versa. Cholesterol, urea, lactose, nucleoproteins, bones and tendons of a man, discs

of transversal striated muscle fibers, collagen structures are piezoelectric in a man's organism. The myelin multi-membrane of nervous fibers has liquid-crystalline structure with piezoelectric property. The presence of piezoelectric effect explains the processes of growth and erosion of bones, mechanism of atherosclerosis, transport processes of transferring nutrients and oxygen to cells. (Berezovskii V.A., Kolotilov N.N. 1990).

Ultra-sound can also have a direct influence on peripheral receptors and the surrounding them fibers. Under intensive long influences by ultra-sound oscillations spontaneous pulsation of receptors decreases and under influence of few dozes it increases. It is of no less importance that ultra-sound is selectively absorbed by neural tissue and the length of its penetration corresponds to the level of peripheral nerve elements deposition and other formations as the main components of acupuncture point. Consequently ultra-sound of low intensity can lead to the rise of bio-potentials only in the points of acupuncture. It is known that at the heart of medical effect of acupuncture is the reflex influence on CNS by means of which regulative and trophic influence on destroyed functions of organism is carried out. Medical effect of ultra-sound has a great significance for recovery of nervous regulations in organism. Forming biologically active matters and biological stimulators in the area of acupuncture points has a very significant place in the mechanism of acupuncture action on organism.

There is a supposition that the property to modulate power flow acquire not only the forms completely limiting the space by matter but also those ones made up only of a framework. It is not improbable at all that the forms of cult knowledge (pyramids, dolmens) were processed empirically so that the arising modulation had a clinic influence on psycho physiological functions arousing altered states of consciousness.

Every person collides with altered states of consciousness. It is proved that "...altered states of consciousness lasting from several second to several tens of minutes are integral element of wake of a healthy person". (**"Physiology of a Person"**p.38, v. 14, № 1, 1988). In scientific literature ASC is defined as mental state aroused by one or another physiological, psychological or pharmacological agent, as subjectively described by individual in the terms of inner experiment

and under objective watch on him characterized as deviation from certain norms of mind functions. (Kucherenko V.V., Petrenko V.F., Rossokhin A.V. 1998).

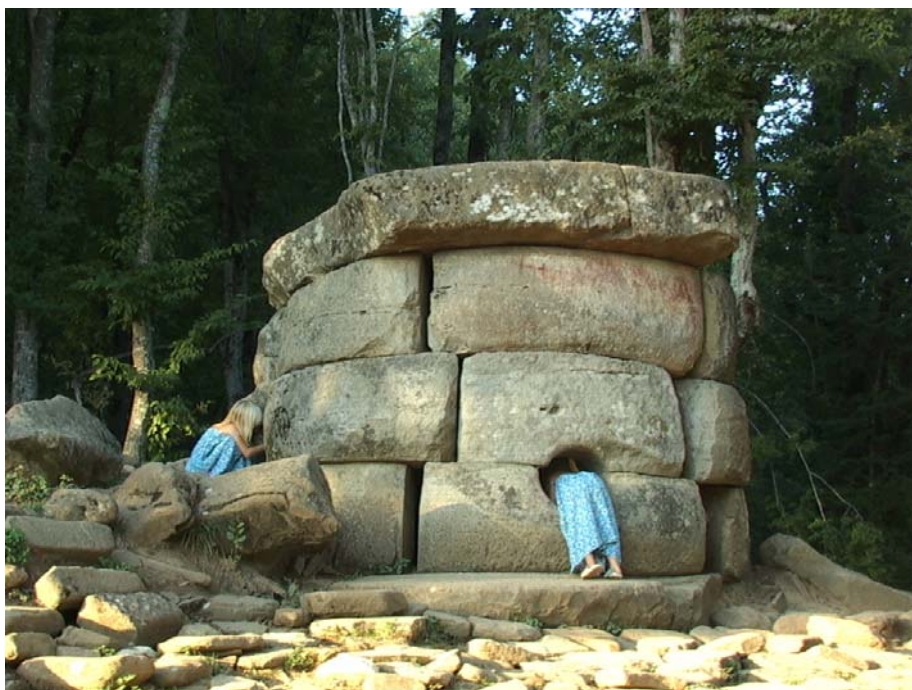
*(Altered states of consciousness arouse under the influence on personality being in usual state of consciousness of different factors: stress and affective factorial situations; sensory deprivation or long isolation; (underlined by author), intoxication (psychedelic phenomena, hallucinations against a background of high temperature and others); hyperventilation of lungs or on the contrary long delay of breath; acute neurotic and psychotic diseases; cognitive-conflict situations breaking the subject's consciousness out of used categorization forms (for example, unusual behavior of mentor in Buddhism , the usage of coans, that is paradox aphorisms, used by Buddhism, paradox instructions unfulfilled in the logic of usual state of consciousness and they acquire meaning for the subject only in the "logic ASC"; in hypnosis and meditation and others).*

It is considered that the earliest form of fixation and development in human culture of conscious induction of ASC and its active use with different purposes is shamanism. In ethnography there are descriptions of altered states known under the name "shaman illness", "shaman Trance", states of collective Trance, for example, in the process of carrying out shaman ceremony "kamlaniya" and so on. Later on ASC and its tricks found their places as in different religions so as in "popular" culture: in sorcery, fortune-telling, village magic, carnivals and so on. Attracting attention of science to phenomena of ASC and the methods of their regulation is connected with the epoch of mesmerism when F.A. Mesmer (1733-1815) laid the foundation of hypnosis and its active therapeutic usage was begun. By now it was experimentally found out that under the conditions of sensor deprivation a person has a need in sensation and affective emotional hunger. In response to deprivation the need in sensations and affective feelings actualizes in a person and that realizes in the form of sensor and emotional hunger. Bright eidetic ideas projected outside (*as the consequence of psychic adaptation*) arouse. Under increasing time action of sensor deprivation eidetic ideas can get out of hand of actual "I" and come apparent in the form of hallucination. In the genesis of the given process asteatosis of nervous system and the development of hypnotic phases in the cerebral cortex can be distinctly observed. Bright, very often significant images have considerable associative force and they can lash consciousness, suppress its activity or take it away along associative chain very far from the concrete interaction with activated complex.

In the altered states of consciousness some changes are taken place:

1. **Forms of subject categorization.** *(They are accompanied by the transfer from socio-normalized by culture categorization forms to other "assemblage points"(by non-standard method of regulating inner experiences and feelings); this process includes the transfer from preferred basis to verbally logical conceptual structures, towards the reflection in the form of visually sensitive ( before verbal) images);*
2. **Emotional coloring of reflected in consciousness inner experience.** *(For example, intensive emotional feelings of novelty, uncommonness, unreality accompanied by the transfer to new categorization forms arouse);*
3. **Processes of self-consciousness, reflexion.** *(They become apparent when some elements of phenomenology of altered states of consciousness are experienced by subject not as products of own mental activity but as something objective and independent from him for example, interpretation of inner experience is taken as afflatus: "I had a vision", "I heard a voice" and so on);*

4. Perception of time, the sequence of occurring in inner reality events, partial or complete amnesia of them caused by difficulty and sometimes impossibility of transferring inner experience obtained in altered states to the language of socio-standard forms of categorization. *(For example, the difficulty of reproduction the sequence of dream events in vigil state).*



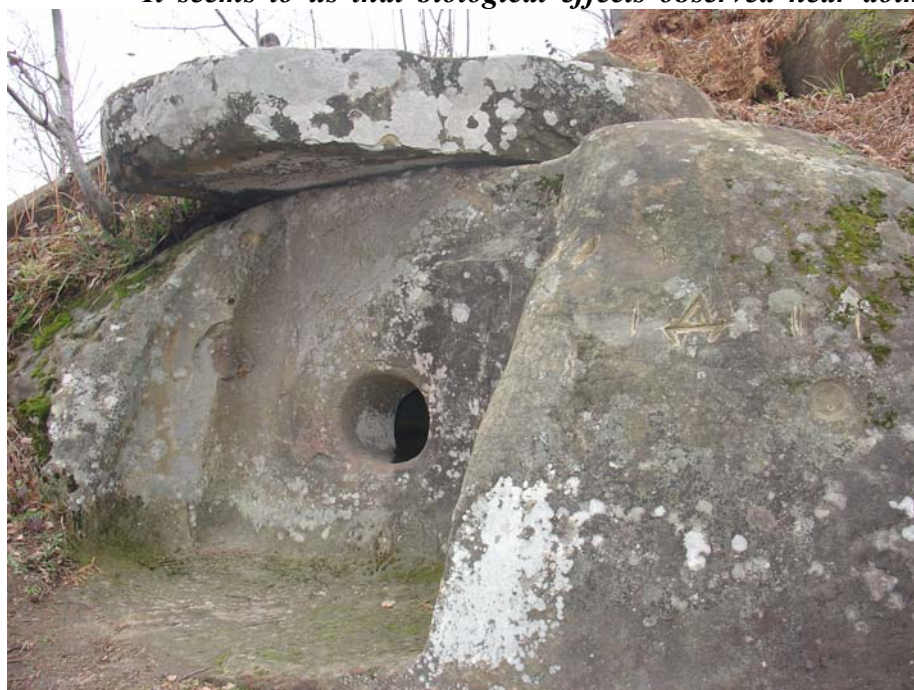
It is quite possible that the supposition about staying in dolmen could be used in different pagan priest and magic practices for sensor deprivation (*from Latin sensus-sense, feeling and deprivatio- deprivation*), long, more or less complete deprivation of sensor impressions in a person. It is one of reached our times ancient wizard practice which provoked in a “patient” (*“consecrated”, pythia, oracle, initiated –author*) altered states of

consciousness. *(It is considered that for maintenance of normal, vigil state of consciousness there is apparently a necessary optimal level of exteroceptive (from outer receptors such as skin, olfactory, tactual, acoustical and others- author) stimulations and if stimulations become weaker or stronger it is quite possible that this promotes to forming of ASC).* Modern scientists usually study the influence of sensor deprivation on a person sinking him into water in special equipment (anechoic room, box and others).

It is known that “...relief of the surface reflects the form of geophysical force lines” **(from “Reports Academy of Science of the USSR, v. p. 291, № 5, 1986).** It is necessary to note that besides flows of electromagnetic waves going from the depth of the Earth dolmens can generate at the expense of piezoelectric effect flows of electromagnetic waves which arouse as the result of tidal waves influence. There is the so-called moon hypothesis according to which Moon’s attraction brings to vertical dislocation not only water in oceans but also layers of



the earth's crust. And what is more it is informed that "... the cause of some strong earthquakes can be gravitational field of the Moon", and the earthquakes themselves are accompanied by weak but authentic changes in geomagnetic field tension". (p.35 "New Scientist" № 1533, 1986, p.167 "Science News" v. 132, № 11, 1987). Greek scientists think that many rocks have piezoelectric effect and as mechanical changes are accumulated in them they generate electric field and connected with it effects which one can register. In 2002 Japan scientists confirmed the Greek hypothesis in practice. Since March of 2000 unusual changes of electrical and magnet fields were registered which became stronger and at the end of July 2000 series of earthquake shocks took place. (p.50, "Science and Life", № 9, 2002). For the sake of justice it is necessary to note that 12 years before Japanese information native scientists wrote that "... sharp growth of activity of natural electro-magnetic radiation preceded the destructive earthquakes in Gazli (1976-1984). (p. 1087,"Reports ASC USSR", v. 301, № 5, 1988). It is also known that when the Moon is at perigee of its circumterrestrial orbit (the nearest to the Earth) its tide-generating force is 40% greater than at apogee. From this some scientists think that these forces arouse stretching of the earth's crust that is deformation which in its turn brings to elastic tension in some part of the planet. According to another hypothesis earth's crust movements and also its seismicity are due to interaction of electrical and magnetic fields of the Earth. (Litinetskii I.B., 1980). According to R.Furdui's data in Moscow latitude daily vertical oscillations of the earth's crust due to tidal influence average near 30 cm. The height of tidal wave in the earth's crust (also in oceans) is constantly changed depending on mutual disposition of the Moon and the Sun. It is possible as the author thinks that dolmens could be used for psychogenetic influence on the people. (Furdui R.S., 2001). Besides weak oscillations of the Earth's electro-magnetic field there are oscillations regarding as geo-magnetic disturbance or magnetic storms characterized by sharp changes of the Earth's geo-magnetic field parameters. It is known that their frequency and activity strictly depend on the solar activity. The greatest quantity of geo-magnetic storms and disturbances accounts for the second half of the solar cycle. Besides geo-magnetic disturbances and storms have strict seasonal rhythmic with maximums in the EQUINOX PERIOD that is in the transitional seasons of the year.



*It seems to us that biological effects observed near dolmens can be hypothetically*

*explained in the following way. The fact of presence near dolmens some springs of water (also mineral one) can prove that they (dolmens) are on the places of the earth's crust breaks. If it is so then taking in account the form of dolmens and the material of which they are constructed (limestone with quartz content) one can suppose that dolmens focus and modulate due to piezoelectric effect flows of electro-magnetic*

*waves of different length and frequency going out of the earth depth. A person getting into these flows experiences multi-level influence. Physical characteristics of intracellular liquids of his organism become changed and that leads to the alternation of their bio-resonance parameters*

*(effect of homoeopathic matters) with further change of homeostasis characteristics on all levels of functions from molecular one to the level of the organism as a whole. Direct influence of electro-magnetic waves on the cerebrum must not be ruled out as the like transcranial electro-stimulation with secretion stimulation of endorphins and other biologically active matters (analgesic, anxiolytic, psycho stimulation effects). Depending on duration of stay near dolmen and the type of NARO (Non-specific Adaptive Reactions of Organism) under which a person was initially these influences either do not change NARO ( a person does not feel anything) or transfer them according to periodical system of NARO from one type to another or change the level of reactivity. Under the transference into activation reaction (calm or heightened) or trainings with high reactive levels the state improves and sometimes significantly (production of glucocorticoids in training reaction is raised and this can cause antiphlogistic effect or the euphoria state). Under the transference into stress or inter-activity the state can become worse. We think that the supposition about usage of dolmens as temple constructions, in which “magic” rituals with the usage of some hallucinogenic mushrooms or narcotic plants for the achievement of altered states of consciousness took place, is quite possible.*



To simplify the said above one can suppose that there is some magnet anomaly near dolmen that is the constantly acting model of a well-known magnet storm the action of which besides anything depends on the tidal wave. And people as it is known react on magnet storms differently.

The authors are far from temptation to see in dolmens something

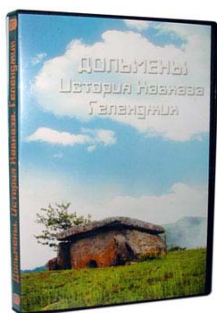
supernatural or mythic (and having some imagination one could develop the idea up to, for example, “changes in water after exposition in dolmens are messages to earthmen from extraterrestrials” or generated electro-magnetic waves are “voices of remote ancestors”).

There were several motivated ideas which advanced us:

1. It is very interesting and we are absolutely sure in the necessity of the further research of discovered biological phenomenon.
2. The North Caucasian Dolmens are in urgent need of defense from sectarians of different kinds who turn them into the places of pagan worship thus destructing them gradually.

During nearly five years dolmen-monolith and it is, I want to say, the only monument of late Stone Age of this kind was destroyed more than during several centuries. It all happens with the connivance of officials of all kinds preoccupied only with taking money from tourists who demolish dolmens as souvenirs and amulets. One must urgently save the Caucasian Dolmens from charlatans and mentally unbalanced people and one must do it immediately.

If this information changes even a little the situation to the best the authors will be more or less satisfied.



In March-July of 2007 an expedition with geologists, biologists, seismologists, botanists from different scientific-research institutions of Russia for carrying out the further researches is planned. Coordinator of researches in the Caucasus is Aleksei Byakov ([www.kko.eago.ru](http://www.kko.eago.ru)). The complete version of the given article is placed on the indicated Internet-site.



During the expedition the well-known Russian director and documentary film maker Denis Ovsyannikov the author of two scientific-popular films “The Caucasian Dolmens” plans shooting of the third film devoted to dolmens. We invite sponsors, consultants and all interested persons ready to take part in the expedition and eager for cooperation to help with its realization. Coordinates and contacts are on the site [www.ovideo.ru](http://www.ovideo.ru).

One can download trailers, read additional information about the films “Dolmens. History of the Caucasus. Gelendjik.” and “The Caucasian Dolmens. History of people.” on the website [www.ovideo.ru/dolmen2.htm](http://www.ovideo.ru/dolmen2.htm).

Additional information and the list of literature concerning the article one can get having written to e-mail: [olegtatkov@rambler.ru](mailto:olegtatkov@rambler.ru).



*Photos: Oleg Tatkov, Denis Ovsyannikov, Oksana Perova and Dmitriy Shalnev*