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Investigating Effects of Geopathic Stress on Health Parameters

Dr. Mohammed Shadab[1]

Affliation: Chakra Institute, Tamil Nadu, India &

Indian Science congress Assosciation (Government of India)

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Abstract: **Geopathic stress, a concept that claims that certain natural and artificial factors can disrupt the Earth's magnetic field and negatively impact human health, has been a topic of interest for many individuals and alternative health practitioners. This study aimed to investigate the potential effects of geopathic stress on various health parameters. The research involved a comprehensive analysis of existing literature, as well as a controlled empirical study. The literature review revealed that geopathic stress theories lack robust scientific validation, and the majority of health-related claims associated with these stress zones are anecdotal and speculative. Nevertheless, the study examined this concept systematically by employing a cross-sectional research design. A sample of individuals residing in areas purportedly affected by geopathic stress was compared to a control group living in geopathically neutral zones. Various health parameters, including sleep quality, stress levels, fatigue, and overall well-being, were assessed through standardized questionnaires and physiological measurements.Preliminary findings indicated no statistically significant differences in health parameters between the geopathic stress-exposed group and the control group. The results suggest that geopathic stress may not have a substantial, measurable impact on the health parameters investigated in this study.**

In conclusion, this research contributes to the ongoing discourse on geopathic stress and its potential effects on human health. The study's findings align with the prevailing scientific consensus that questions the validity of geopathic stress theories. While further investigation and replication are warranted, the evidence presented herein suggests that other factors may have more prominent influences on the health parameters under consideration. This study underscores the importance of approaching health concerns with a critical and evidence-based perspective, particularly when addressing controversial concepts like geopathic stress.

Keywords: **Geopathic stress, human health, health parameters.**

1. ORIGIN OF EARTH'S FIELDS

One can assume that there are many reasons for effects of different locations on humans, animals and plants. For sure it's not one single, definite kind of "radiation". In addition to the suggested weak, broadband transversal electromagnetic and magnetic fields assumed to originate from ground, other forms of "energies" might exist, such as the often controversially discussed longitudinal scalar waves. Various possibilities of combinations are imaginable. Furthermore, technically generated EMFs are present on nearly every place on earth; their likely influence on our health is presently the subject of intensive worldwide research. The so called "space weather" (including Schumann-fields") also plays a role. In the following attempts of explanation, we will concentrate on natural sources possibly contained in the very outer skin of our earth.

Piezoelectric effect

The piezoelectric effect is a fascinating phenomenon in physics and materials science that describes the ability of certain materials to generate an electric charge in response to applied mechanical stress or deformation. Conversely, these materials

can also undergo mechanical deformation or strain when subjected to an electric field. This bidirectional coupling of electrical and mechanical behavior is a characteristic property of piezoelectric materials.

Key points regarding the piezoelectric effect include:

1. **Materials**: Certain crystalline materials, such as quartz, Rochelle salt, lead zirconate titanate (PZT), and some biological substances like bone and DNA, exhibit piezoelectric properties. Piezoelectric materials are typically non-centrosymmetric, meaning their charge distribution is asymmetrical.

2. **Direct and Inverse Piezoelectric Effects:**

2.1. Direct Piezoelectric Effect: When mechanical stress, such as pressure, tension, or bending, is applied to a piezoelectric material, it causes the material to generate an electric charge or voltage across its surfaces. This effect is commonly used in various applications, including piezoelectric sensors and transducers.

2.2. Inverse Piezoelectric Effect: Conversely, when an electric field is applied to a piezoelectric material, it results in a mechanical deformation or strain in the material. This effect is utilized in devices like piezoelectric actuators and piezoelectric motors.

3. **Applications**:

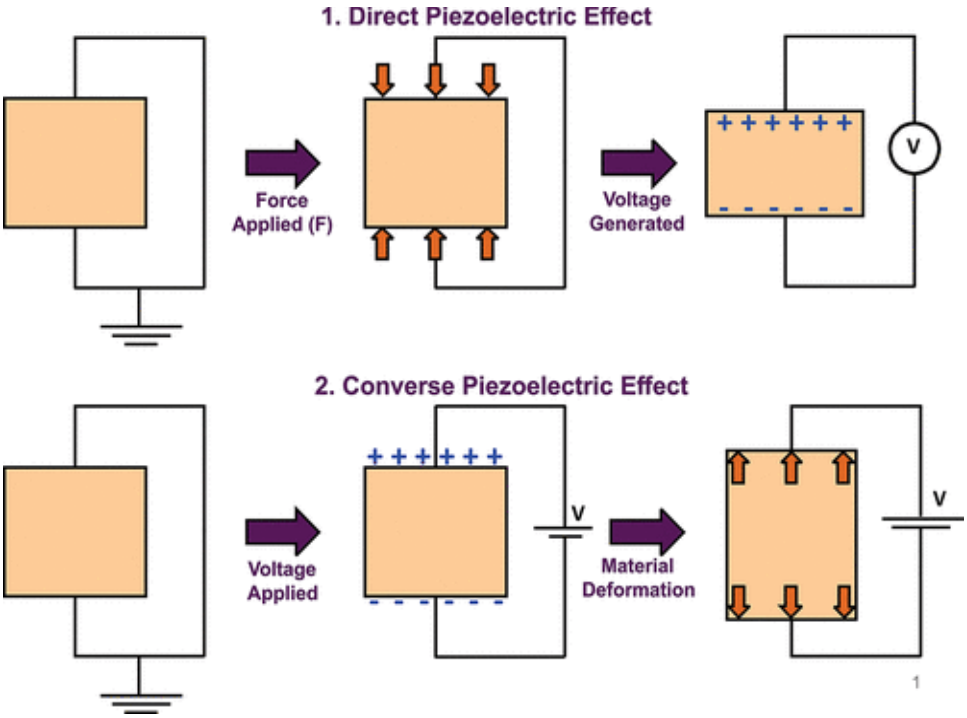
3.1. Sensors and Transducers: Piezoelectric materials are commonly used in sensors for detecting pressure, acceleration, and force. They are also employed in microphones, vibration sensors, and ultrasound transducers.

3.2. Actuators: Piezoelectric actuators are used for precise mechanical motion in applications like positioning systems, inkjet printers, and optical devices.

3.3. Energy Harvesting: The piezoelectric effect can convert mechanical vibrations and motion into electrical energy, making it suitable for energy harvesting in various systems.

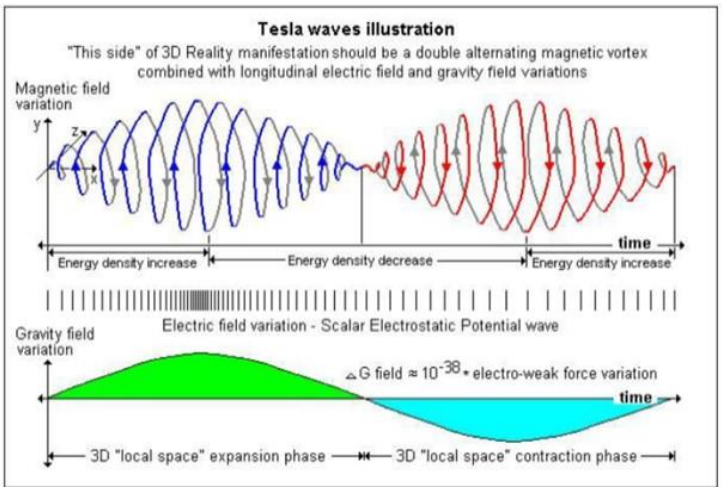
3.4. Sonar and Ultrasound: Piezoelectric materials are essential components in sonar devices for underwater navigation and medical ultrasound machines for imaging and diagnostics.

4. Non-piezoelectric Materials: Most common materials, including metals and non-piezoelectric ceramics, do not exhibit the piezoelectric effect because they lack the required crystal structure and symmetry. The piezoelectric effect has a wide range of practical applications and is central to the operation of many electromechanical devices and sensors. It is an important phenomenon in materials science and plays a crucial role in modern technology and engineering.



2. LONGITUDINAL SCALAR WAVES

A perhaps largely underestimated aspect of the geopathy phenomenon might be found in the potential presence of "longitudinal scalar waves" . According to Professor Konstantin Meyl (Furtwangen University, Germany), those are directed waves spreading into the direction of a field pointer. The scalar wave is carried by scalar particles or field vortices. In the case of plasma waves, they are charged particles, and in the case of sound waves, they are air particles. Already in 1904, E.T. Whittaker showed mathematically that the known and accepted Laplace Wave Equation of the year 1787, besides indicating transverse electro- magnetic waves, also can describe longitudinal scalar waves .



The existence of longitudinal wave proportions, as also present in the near field of a dipole antenna, was already shown experimentally by Nikola Tesla (1856-1943). In spite of the fact that scalar waves in the field theory of Maxwell are usually neglected and set to zero, numerous experiments may lead to the conclusion that they do really exist and influence the human organism . Professor Meyl explains that to a measurement technician, scalar waves would experimentally manifest as (antenna-) noise, a "diffuse" mixture of frequencies and wavelengths. Interaction with an appropriate partner or medium might take place by goinginto resonance. In that case, both sources attract each other, which can be explained and calculated by the occurrence of field changes during that process.

3. GEOPATHIC INTERFERENCE AND THE ORGANISM

Physical Interactions and Resonance

To influence an organism, an extrinsic energy source has to come into interaction with the body, organs, cells, cell organelles and/or molecules in some way or another. The presence of pure physical interactions and in addition also of "physiologic sensors" located inside the body can be assumed. Below we will go into detail on their possible interactive nature.

Physically, for instance, we could point to a reciprocal build up by resonance. To be more precise, from outside, we have "extrinsic" (external) field sources (e.g. those from the ground). Inside our body, there are the "intrinsic" (internal) structures and molecules of the organism, which are either "resonating" because of their physical nature (as with stringed instruments: compare the vibration of the string alone *versus* string with resonator sound box), or create a certain frequency themselves. Examples for the latter are the physiological "pace making" of the heart muscle, or that of the central nervous system (e.g., the 10 Hz-clocking of brain waves).

Water plays an important role in physiological functionality of the organism and therefore also in the context to geopathy: The above discussed amplitude vibrations of the electrically charged potential vortextes associated to the dielectric water molecules very likely enable resonance of bodily / cellular water with different external fields. Physical resonance is defined as a synchronization of two sources which vibrate with the same pulse frequency but with contrary polarity. In the case of resonance, information is being exchanged, energies are transmitted and, in fact, a component of balance between the sources is being formed (from personal communication, A. Schrodt, 2006).

Physiologic and Biochemical Sensors

Besides the role of water inside the body, and with the understanding that the human head contains 70% water (care: not "simple" H2O is meant here; it is a kind of "structured water" of colloid nature), some kind of "receptors" or "antennas" in our bodies must be present, reacting to geopathic fields. Of the numerous possibilities, only some examples shall be mentioned here.

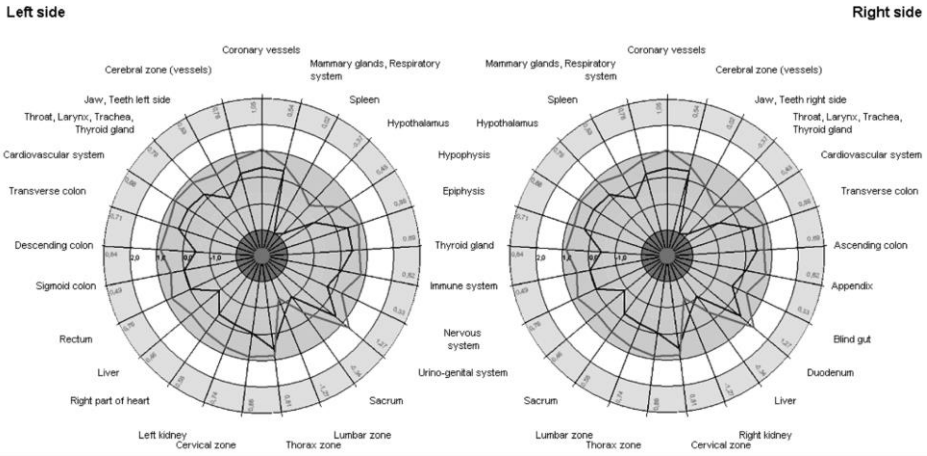
Proteins and most other bio-molecules are not at all "nonrigid" structures; in order to fulfill their functions, they possess the ability to dynamically change their shapes within certain limits. Internal protein dynamics can potentially affect protein

function through a variety of mechanisms, some of which are tautological or obvious in nature while others are subtle and remain to be fully explored and appreciated . Certain processes of proteins as parts of their 3-D conformation have the ability to oscillate or rotate. Such only a few nanometers sized processes have been discussed as possible sites of resonance induced by external EMFs, acting as "**protein-antennas**" . When experimentally irradiated by EMFs of frequencies

Can Geopathic Zones Have Adverse Effects?

Even though in today's popular media, pseudo-scientific and quasi-medical reports on the topic of geopathy are presented to the public, no "peer reviewed" medical journal indexed in MedLine had published statistically firm and sound *provable* evidence of geopathic effects on humans until most recently. Previously described effects and descriptions of the pioneers (1, 3 and others) in this area unfortunately aren't available in the standardized, scientifically acceptable nor reproducible format required for peer-reviewed medical journals, but rather as monographs. Nevertheless, this doesn't reduce their importance and relevance: Those pioneers in research on the geopathy phenomenon neither had the kind of scientific methods that are available today, nor was the time mature for such publications in the kind of medical journals we know today. Nonetheless, what these people achieved, and their courage, as well as of the publishers who rightly published their works, deserve high credits.

Our first concepts how to address the geopathy phenomenon were based on the descriptions and personal discussions with the late Otto Bergsmann († 2004) and Alois Stacher (medical doctors, both from Vienna, Austria) and carried out in close co-operation with Adolf Wiebecke and his team (Salzburg and Oberalm, Austria). Because of the lack of "direct" physical measurement techniques for the doubtlessly existing „energy fields" at least partly originating in the ground, we decided to use the human body as an indicator. In our first approaches, we utilized methods from complementary medicine (bio-resonance, kinesiology heart-rate variability, etc.). Although successful in some areas addressed, the effects found had not the high statistical significance required, and the methodology used was not a generally accepted one, guaranteeing medical relevance and reproducibility.



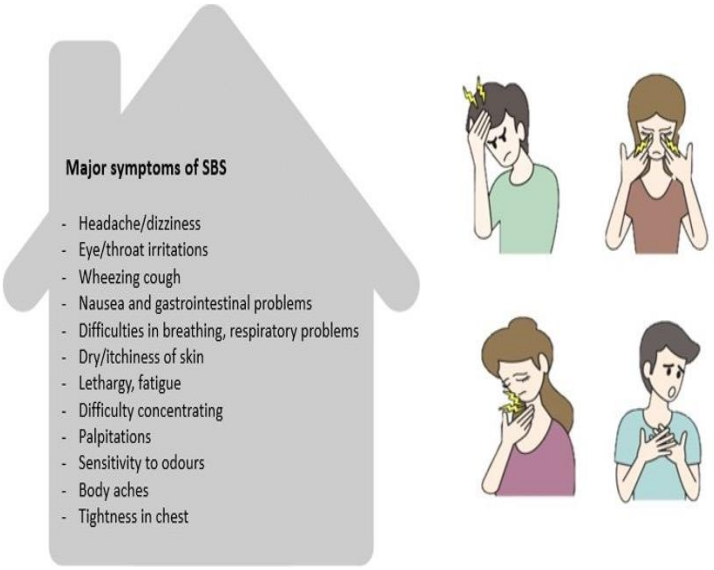
Signs and Symptoms of Exposure to Geopathic Stress

Geopathic stress is detrimental to the health of people and places. Previous studies have proven that geopathicstress affects built environments. The prolonged time spent on sleeping and working in the geopathic zone may be stressful to an individual. Geopathic and electromagnetic energies are capable of seeping through walls, doors and buildings, and impact the mental and emotional state (e.g. may cause irritation, short-temperedness and being'out-of-sorts') of people who exposed to geopathic stress zones. Babies are remarkably sensitive to geopathic stress. For instances, if babies cots are located at the site of a geopathic zone, they migrate and sleep only at one corner with the least stress on it or they will not settle at night. Abnormal behaviour in animals could be a sign of geopathic stress too.

Office environments are often considered safe to office goers or building occupants when they are not exposed topotential hazards (e.g. high levels of physical, chemical, or biological compounds) which may affect their health. However, there are several reports in the literature describe building-associated illnesses, which involve epidemiological cohort and cross-sectional studies, population questionnaire surveys, and experimental studies.Building-associated illnesses are a common concern in modern high-rise buildings and building occupants do often suffer from sick building syndrome with acute

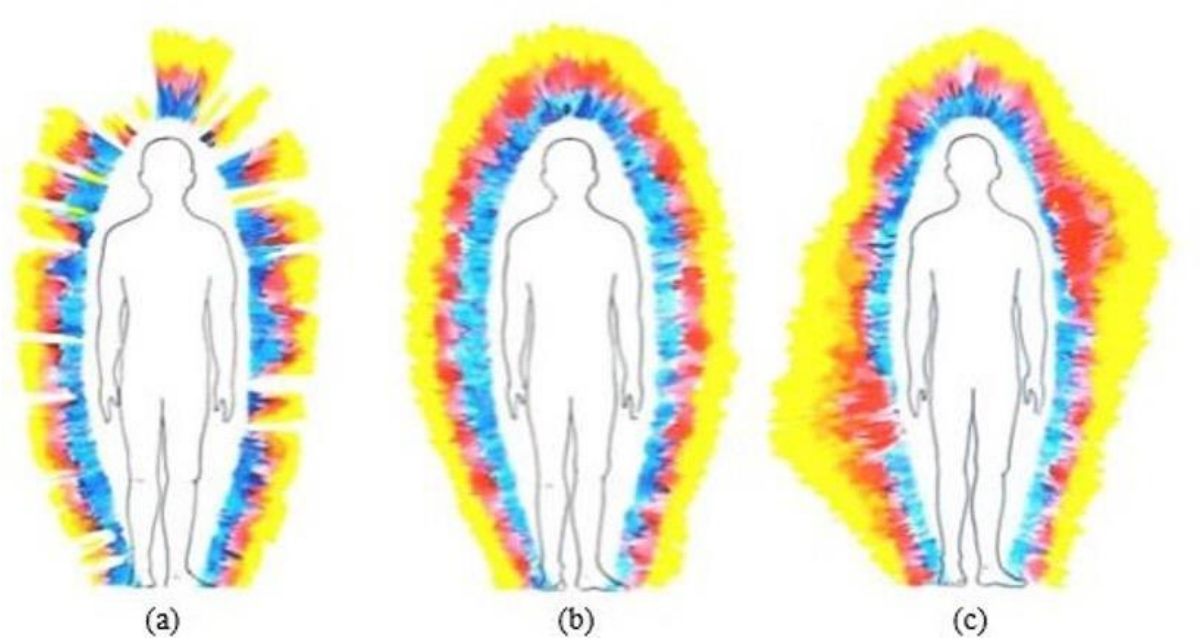
effects on health and discomfort over time. The WHO named these situations in which building occupants experience one or more adverse health symptoms that appear to be linked to the duration spent inside a building as sick building syndrome. Sick building syndrome is an emerging health risk concern which likely impacts thousands of workers on a daily basis. Reported symptoms linked to this are non-specific symptoms including mucous membrane irritation (eye, nose, and throat irritation), asthma and asthma-like symptoms (chest tightness and wheezing), skin dryness and irritation, neurotoxic effects (headaches, fatigue, andirritability), gastrointestinal complaints and other miscellaneous health concerns. These symptoms resemble the effects of exposure to electromagnetic emissions, whereby headaches represent one ofmost commonly experienced of all physical discomforts in almost all studies. Additional health problems associated include depression, anxiety suboptimal performance, and odd behavior. Onset or exacerbation of the symptoms associated with sick building syndrome typically occur following chronic exposure to geopathic stress zone. Generally, in most of the cases, sickbuilding symptoms usually subsided and dissipated or disappeared after the affected occupants leave the geopathicstress zone.

Modern Devices for Geopathic Stress



In fact, some of the traditional techniques described above have been shown to be able to improve the wellbeing of humans. They are found to be great simple and fast easy to operate, along with low cost and high effectiveness —possessing a highly statistical success ratios, however, there is a continued skepticism regarding the presence of geopathic stress[6]. Therefore, a variety of modern digital measuring devices have been developed to detect theselective components of geopathic stress zones which would be able to generate a quantitative measurement for each of selective electromagnetic energies including impulses electromagnetic fields, geomagnetic field, gamma rays, gravity gradients, ley lines and etc.. Indeed, these devices provide guidance to determine hazardous geopathic stresszones as well as geophysical anomalies or geological hazards by revealing ley lines of the global energy network and the site of their crossing (nodes).

In the work of Dr. Mark Krinker and Professor Aron Goykadosh, a Spinning Electric Vector Analyzer (SEVA),and an ELF were used to map and detect irregular geopathic zones (e.g. spinning electric fields). In another effort, anew technique for identifying geopathic stress zone effects on man was developed in Germany by Doctor H. Schimmel called the **Vegetative Resonance Test (VRT)** or VEGA test in year 1978. It is based on methods ofbioresonance and electropunctural diagnostics of human body. Any disturbance on the organism under the impact of various environmental factors, particularly generalized Pareto (GP) loading is detected by the electrical Conductivity measurements of a certain biologically active point[9]. The reaction of human body to VRT is an indication of the existence of geopathic stress at certain locations and evidence of its positive and negative consequences. Hacker *et al*. (2008) also designed a new technique called the gas discharge visualization (GDV) technology which can measurestress. Principally, the GDV camera, which has high stability and sensitivity, uses pulses for less than a millisecond of high-frequency (1024 Hz) and high-intensity electric field (10 kV) around a fingertip set on the electrified glass plate[2,80].In a geopathic zone, the detected areas of glow, or aura surrounding a person showed statistically significantdifferences with a neutral zone, i.e. smaller and had breaks. Another study made by Dharmadhikari andothers (2010) uses Light Interference Technique (LIT) to understand the nature of a pre-detected GS zone[6]. The instrument consists of two components with a gap, i.e. a laser light source and detector. Interaction between thescattering laser light photons and earth energy anomalies changes the current when earth energy exhibits anomalies inthe gap between the 2 components[6]. A year later, Dharmadhikari *et al*. (2011) further tried to evaluate dowsing phenomenon scientifically by measuring human body voltage, skin resistance, using a very sensitive V-20 biovoltmeter, the Galvanic Skin Response (GSR)-2 biofeedback system. It was observed that geopathic stress contributes to a significant increase in the body voltage and a decrease in skin resistance.



Example of a comparison in between three corona projections (electric field images generated from a GDV camera) of a test person obtained on a geopathic zone (left and right) and from geopathic stress free zone (middle): (a) A sick person with breaks aura; (b) Ahealthy person with even emanations; (c) A sick person with uneven distribution of energies.

4. RELEVANCE AND WAYS OF HARMONIZATION

Stress is known to adversely affect health as soon as it is present for longer periods. Our study has shown that certain areas above the ground can indeed induce stress. Such zones might cause distress ("malignant stress") even when present for a short time, but there are also reports that (not scientifically proven) energetically stimulating zones ("positive energy zones") might exist, often also referred to as "power places". Such areas have been dowsed within some churches and other buildings constructed centuries or often thousands of years ago. "Positive stress" (eustress) under certain circumstances is a "wanted" bodily reaction, as it can stimulate us to best possible performance. If present for a prolonged time, however, eustress may soon turn to distress and thereby suppress the immune system.

Because of the energetic weakening of the immune and other bodily systems detected in our study, it appears highly likely that in some individuals, the development of various diseases is eased when people again and again stay for longer times at geopathic zones (e.g., if present at their sleeping area, or at the area where their working chair is usually placed). Effects on general health, healing processes (e.g. in hospitals or convalescent homes), on sleeping quality, and (according to unpublished results of a pre-study carried out by us in a home for behavioral conspicuous children) also on interpersonal relationships, especially in interaction with partners (e.g. aggression), and also performance at work are possible consequences of location-dependent stress. The "Geowave" device investigated in our study could therefore, by its balancing effect, not only aid in lowering of stress, but also be understood as a tool for disease prevention.

Those people who are already in the beginning stages of poor health may sense an added sensitivity for diseases of different kinds when staying longer on geopathic locations, as well as notice that healing processes may take longer than usual. In later stages, it my not be impossible though that chronic stress caused by geopathic locations may finally even forward the development of malignant disease.

5. CONVENTIONAL MEASURES TO REDUCE GEOPATHIC STRESS

Constructional Possibilities

A number of effective actions can be taken to keep one's body healthy and vital. Concerning geopathy, first of all, constructional adjustments are to be considered. During the planning stage in construction of new buildings, the geopathy phenomenon should be taken into account, so as to consciously design and construct buildings and rooms in a manner that, in areas where people will stay for longer periods of time, geopathic exposure should be as low as possible. Within existing

rooms, often a relatively little adjustment of beds and often used seats may contribute to better living quality and health (bedrooms / beds, offices / desk seats, living rooms / television seating; hospitals / sickrooms, surgical theaters, etc.). As there are no reliable measuring instruments available so far, it presently makes sense to take advice from an experienced dowser. However, according to the Munich barn- experiments and other independent investigations, only a low percentage of the people claiming to be successful dowsers are actually capable of making reproducible and reliable conclusions. Therefore it makes sense to consult with a competent building environment engineer who has experience, skill and expertise in geopathy matters too.

If constructional arrangements are not possible before erecting a building or before starting a reconstruction, which is supposedly the case in most instances, there are also other practical possibilities: provided that there is a will to do so, it should be possible to move beds or desk seats, in order to get them out of interference zones. This is still the cheapest and a rather efficient action at the same time.

Stress Prevention

Everyone can do something to prevent negative influences by sources that cause stress: anything that reduces stress in general also helps one deal with specific stress factors, and zones, from any origin. This includes methods of stress-management and relaxation techniques, such as meditation, tai chi, guided imaginative journeying, and also certain hypnotherapeutic approaches. Likewise, prayer and spiritual practices can lead to inner harmony. Mental components are just as important: the more someone lives consciously, and even optimistically, in a state of positive thought, the less external stress factors can influence the person somatically. Furthermore, many studies confirm that people who "live a healthy life" – who manage their weight, refrain from smoking, enjoy the outdoors, participate in sports, etc. – have a stronger immune system, a better well-being and experience less stress than others who do not engage in so called "health behavior".

A decisive component in this healthy lifestyle is, to what extent and type of nutrition one follows: concentrating on organically derived foods, lots of vegetables, fruit, and fish, less meat, paying attention to one's weight, as well as including periodic "purification" and/or fasting times, are some of the factors that lead to staying healthy and dealing more consciously with the environment. Interestingly, these positive lifestyle choices may also show up indirectly and in the subconscious: During an experimental study on technically derived microwave EMFs we observed that even those potentially very harmful energies seem to have less of a negative effect with people who prefer such an "aware" way of life.

6. CONCLUSIONS

EMF exist everywhere in our environment but are invisible. It can be unsettling sometimes for the modern, well educated, pragmatic person to believe and understand that there are disturbed vibrations coming out from the earth beneath, which are unseen forces that can be harmful. In modern history, many open-minded scientists and researchers,risking the condemnation of their conventionally minded peers and the medical establishment, have spent decades or lifetimes understanding the nature of proving and documenting geopathic stress. Geopathic stress, while notacknowledged by the medical establishment, is considered by energy-medicine practitioners to be strongly linked todiscomforts and diseases. The study of geopathic stress has given us new insight that in fact, geopathic stress might responsible for many diseases. Various parameters can constitute to geopathic stress, among them are intense change in the magnetic and/or gravity field, change in radiation or radioactivity levels, conductivity discontinuity of the ground material, the presence of a fault, and/or subterranean water. The concepts of geopathic stress and EMF pollution challenge our understanding of how the body interacts with the environment. We are more than just aphysical body, we are also all that we cannot see, including our subtle bodies. As carriers, we are not allowed to ignorethe dimensions that our senses cannot perceive. Thus, consideration must also be given on how these phenomena affectthe body's own energy systems.

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