Appendix 3. An article on Agnihotra. Below is an article to bring us again to what agnihotra is all about, what it is for, and what are experienced phenomena from the practice.

AGNIHOTRA - An Ancient Solution for Agriculture of the 21st Cent

by Cle Latouf

 $\frac{http://www.vedicsociety.org/agnihotra-an-ancient-solution-for-agriculture-of-the-21st-cent-a-333.html?tPath=31_24$

Agnihotra has its origins in the most ancient Vedic sciences of bio-energy, medicine, agriculture and climate engineering. When Agnihotra is applied in medicine and agriculture it is called Homa Therapy. When Homa Therapy is applied to Agriculture it is called Homa Organic Farming. Homa Organic Farming is a system of agriculture that can be added to any organic farming practice. This ancient Vedic farming technique promises an increase in crop yields with minimal input costs. The practice is used to treat the atmosphere, the soil, plants, pests and disease problems.

Vedic sciences have been used predominantly in India and South America. I stumbled upon this technique in the South of India. According to Martin Gluckman, head of the Vedic society, "Many people are led to believe biodynamics originated from Rudolf Steiner but when traced back, it actually stems from ancient Vedic knowledge." When invited to an Agnihotra conference presented by Dr. Ulrich Berk, my interest was immediately sparked. Dr. Ulrich Berk, Chairman of the German Association of Homa Therapy, explains that Agnihotra not only maintains an ecological balance by purifying the air but the ash from the Agnihotra can also be used as fertilizer.

One unit of Homa Organic Farming is called a Resonance Point. One Resonance Point can treat an area of up to 200 acres. If the farmer does not have so much land, then several farmers can join together to reap the benefits of one Resonance Point complex. Agnihotra is carried out with specific ingredients in the middle of the treated area. Please see diagram.

Till recently it was believed that research into science could furnish answers to all of humanity's problems. Fertilizer became big business after the second world war because a market was needed for the surplus chemicals produced for biological warfare. Since then soils have been degraded through the extensive use of agri-chemicals. Farmers are now facing the consequences with depleted soils and an increasing amount of plant diseases, as bacteria and viruses become increasingly drug-resistant. However, there is a trend towards rebuilding the soil's health which can be seen by the return to small scale organic farming as well as biodynamic practices. Experimental studies show that the incidence of physical ailments, sickness and disease are reduced where Agnihotra is regularly performed because it creates a purified atmosphere.

What does the process entail? The Agnihotra fire must be performed at sunrise and sunset. Dr Ulrich explains that these are the two most important transitional times of the day. During these

periods changes of great magnitude take place in the eco-sphere which have a vital impact on life and the environment. Synchronising the exact time for a specific place for the fire to be made is also essential. If co-ordinated correctly the vital, life sustaining energies of the solar system will be attracted.

Cow dung has been used since time immemorial for its medicinal qualities. The cow is a revered animal in many ancient civilizations due to its complex digestive system and connection to the solar energies. The cow dung cake has been proved to contain many active beneficial properties that get released through burning. Ghee is used in the process and according to Ayurveda it is a tonic and a cardiac stimulant. The gases produced by the burning of cow's ghee are thought to remove all pathogenic bacteria and purify the atmosphere. According to the Science of Agriculture as given in the Vedas, as well as Biodynamic farming, plants get 75% of their nutrition from the atmosphere.

Agnihotra is basically a healing process. The medicinal fumes emanating from Agnihotra have been observed by researchers in the field of microbiology to be clearly bacteriostatic in nature. They eradicate bacteria and other microorganisms, which are the root cause of sickness and disease.

Crops such as bananas, cocoa, soya bean, cotton, tomatoes, mangos, coconut, papaya and lemons are just a few of the success stories. Homa Therapy has also been successful with livestock and humans.

Agnihotra works by purifying the air through the smoke, while a handful of ash can be put in the irrigation system to cleanse the water, both acting as medicine for the farm.

The burning of organic matter to flames has always been controversial due to the generation of CO and CO2, and the increase in the consequent "green house" effect. Agnihotra is a process of slow combustion at a high temperature, where meagre CO2 is generated therefore posing no threat to the environment.

This all sounded too simple, a little fire with key ingredients? I needed more proof. Studies by Dr. Arvind G Mondkar M.Sc, Ph. D showed that Agnihotra fumes are rich in formaldehyde and other substances, which have inhibitory effects on microorganisms like staphylococci and salmonella. Formaldehyde is a powerful antiseptic and the germicidal action of formaldehyde is only effective in the presence of water vapour, which is also produced in large quantities in Agnihotra. The formaldehyde spray is automatically produced when Agnihotra is performed. The oxidation of hydrocarbons also produce formic acid and acetic acid both of which are good disinfectants. Agnihotra is also said to emit fumes that have powerful antibiotic qualities.

Dr. B. R. Gupta, associate Professor of Microbiology at the CSA University of Agriculture has shown that the bacterial colony count in an Agnihotra atmosphere was 80% less than that in an atmosphere not purified by Agnihotra. There are non-bacterial parasites which are immune to bactericides, which are also harmful to plants and animals. Such insects are generally immune to ordinary reagents, but either get killed or driven away when they come into contact with the specific fumes diffused in the environment. A study done by Wing Commander D.V.K. Rao a

classified specialist in Pathology showed that Agnihotra ash has a bacteriostatic effect (inhibiting growth of bacteria) and controls the growth rate of various types of pathogenic bacteria. Below are two letters – from the mayor of Nueva Requena and the other from the mayor of Puerto Sira, certifying that the disease, Sigatoka negra, was completely eradicated from the banana plantations with Homa Therapy. Further observations showed an average of twenty healthy productive shoots born from the mother banana plant where Homa Therapy was used whereas normally each mother plant produces only three to five shoots.

The Deputy Director of Agriculture in India has submitted a technical report recommending the use of Agnihotra ash as an effective fertilizer. Studies included research from a group of scientists led by Dr. Manoj Garg. Experiments were set up about 20 meters east from the Yagnashala. The samples of 100ml each of water and air collected from the surroundings were analysed. The levels of sulphur dioxide after Yagna decreased from 3.36 to 0.80, the level of nitrous oxide from 1.16 to 1.02. The bacteria count in water dropped from 4500 before Yagna to 1250 after Yagna. The ash contained minerals such as phosphorus, potassium, calcium, magnesium, nitrogen and Quispar (what is this?).

As simple as Agnihotra is, Dr Ulrich Berk explains the intricate details that must be adhered to. There are many subtleties. The ancient language of Sanskrit is used for the mantras. According to Professor Joshi from the Indian Institute of Technology, these vibrations are said to penetrate the energy spheres at the subtle and cosmic levels. It is also believed that Sanskrit is endowed with special vibrational patterns, which set out harmonious wave patterns when pronounced correctly. Exact times are to be adhered to when lighting the fire and these must relate to the exact geographic location the fire is made at. A calender made available by the Vedic society can be found online at http://www.vedicsociety.org/download-p-104.html. The Ghee used must be pure cow ghee and not from any other animal. The pyramid used to make the fire must be made out of either copper or gold, not for example silver.

There are some western explanations for the benefits of the products used but it has been said that this ancient knowledge is not fully understandable to someone who doesn't study the ancient philosophies of the Vedas. But here are some of the western explanations for the success of Agnihotra. The word "pyramid" means "fire in the middle". The inverted pyramid allows controlled generation and multidirectional dissipation of energy. Professor Joshi explains how the power of sound vibrations is long since acknowledged in the field of science. It is believed that Sanskrit mantras contain the quintessential sound of life-sustaining energies. These vibrations are soothing and help in spreading specific energy waves. However the language of Sanskrit is said to take around 10 years to learn because of its subtleties, and even though the mantras uttered in the morning and evening Agnihotra are not complicated, the mantras used to set up the Agnihotra Resonance Point are more complex. It is for this reason that a trained specialist must establish the Resonance Point. South Africa will see a specialist arrive in December 2008 where this method will become available. The costs involved are minimal. The materials only include the copper pyramids, cow dung, ghee (clarified butter) and rice and the huts can be made out of any materials the farmer has available, contributing towards keeping costs minimal.

Much can be learnt from Vedic agriculture when it comes to giving the natural back to nature. It

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