

Environmental Impacts of Homam- a Case Study (at Sridevi Veda Vidyalayamu, Srisailam)

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Abstract. An attempt was made to study and evaluate the environmental impacts during performance of Chandi homam at Sri Devi Veda Vidyalayamu, Srisailam. A review of literature highlighted the scientific work undertaken by different organizations and individuals on homam/ agnihotra/ yajna and its beneficial effects on human beings, animals, plants and materials in the vicinity of homam.

The procedure adapted for the study consisted of

- Collection of gaseous and particulate samples from two points near homa kundam and one controlled point in the ambient air.
- Collection of Bottom ash samples from homa kundam.
- Analysis of gaseous samples and particulates from all the three points of instrument positions
- Heavy metals analysis in ambient particulate emissions and the bottom ash.

Samples of bottom ash collected from eastern, southern, western and northern parts of homa kundam were analysed for heavy metals using an Atomic absorption spectrophotometer (AAS). The results of analysis of SPM for heavy metals clearly showed very high concentrations of Zinc (Zn). The results of analysis of bottom ash for heavy metals showed mainly Lead (Pb) and Manganese (Mn). Although the scope of research studies in this area is very vast, the present studies were undertaken with limited scope in limited time.

Keywords: homam, agnihotram, environment, pollution, impact, heavy metals, veda.

1. Introduction

Agnihotra or Homam is an ancient science given in Sanskrit language at the time of creation. Sanskrit was never anyone's mother tongue; it is a language of vibration. We can make changes in the atmosphere with Sanskrit mantras and fire prepared with specific organic substances, timed to the sunrise/sunset biorhythm. The fire is prepared in a small copper pyramid of specific size and shape. Brown rice, dried cow dung (manure) and ghee (clarified unsalted butter) are the substances burned. Exactly at sunrise or sunset the mantras are spoken and a small amount of rice and ghee is given to the fire. There is not just energy from the fire; subtle energies are created by the rhythms and mantras. Atharvaveda also deals with sound therapy aspects of Mantras for the treatment of the ailing human system at the physical, psychological and spiritual levels. The Samaveda focuses on the musical chanting patterns of the Mantras and the subtle form of Yajna by defining the latter as the process of mental oblation on the surface of internal emotions through the cosmic radiation of the omnipresent subtle energy of sound. The Yajurveda contains the knowledge of principles and methods of performing Yajnas as Spiritual and Scientific experiments for global welfare.

1.1. Effects Of Agnihotra

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Experimental studies show that the incidence of physical ailments, sickness and disease are reduced in the houses, where the Yajna (Agnihotra) is regularly performed because it creates a pure, nutritional and medicinal atmosphere. It renews the brain cells, revitalizes the skin, purifies blood and prevents growth of pathogenic organisms. Agnihotra is basically a healing process. 'Heal the atmosphere and the healed atmosphere will heal you'- is the Modus Operandi. Purification of environment through the constituent electrons of the substances fumigated in the Yajna is an obvious effect of this process. The observation of some distinguished scientists is note worthy in this regard. Sugars present in Havishya have great power to purify the atmosphere. It kills the germs of T.B., measles, smallpox and cow-pox, remarks.

1.2. Effect on Microorganisms

A preliminary experiment carried out to study the effect of Agnihotra on the bacterial population in a room showed 91.4% reduction in bacterial count where Agnihotra was performed. The Brahmavarchas Shodha Sansthan (a scientific research centre in Hardwar, India) has taken up research on this aspect of Yajna. In Yajna, medicines and herbs are vaporized by offering them into the sacrificial fire, and they enter the human body in a gaseous form through the nose, lungs and the pores of the skin. Yagnopathy may come into being sooner than expected, and it may rank a unique achievement of the modern age.

2. Methodology

The Procedure used for the study consisted of

- Collection of gaseous and particulate samples on 15th and 16th of October 2010 and bottom ash
- samples collected on 22nd October 2010,
- Analysis of gases, particulates in ambient air,
- Heavy metals in the bottom ash.

The methodologies adapted are described in the following paragraphs: Location: The study area selected is unique because of the presence of a Jyothirlingam and a Sakthi peetham.

Time: The time chosen is the Navaratri period which is considered to be sacred according to our ancient scriptures.

The people: The priests involved in the study are the students of Sridevi Veda Vidyalayamu who are the future care takers of Sanatana Dharma. Sridevi Veda Vidyalayamu is located at Srisailam, a highly sensitive area in respect to many aspects. The samples were collected using The Respirable Dust Sampler-APM 460 and analysed according to the Standard methods.

3. Interpretation of Results And Comparison With Ambient Air Quality

A Comparative study of Suspended Particulate Matter (SPM) recorded outside the building and near the homam, clearly showed that there is a decrease in Total Suspended solids at the place where homam is being conducted. This is mainly because of the type of offerings made have a tendency to allow bigger particles to settle down as ash. However the Concentration of Respirable Suspended Particulate matter (RSPM) is higher because of release of more number of nano particles.

Because of controlled combustion taking place during the homam, Carbon dioxide in small quantities gets mixed with aromatic vapors and act as cerebral stimulant.

The colloidal molecules of cow's ghee and other constituents could chelatingly (bind) attract and grab pollutants in the air. The seized molecules as they settle on the ground would alkalize the soil. When they come in contact with plant, they could stick to leaves and act as a time-release foliar nutrient. Physically because of the ghee, the smoke could be electrically charged.

The sonic vibrational input given through chanting of Vedic mantras in regulated direction, force, timing and modulation would also help the process of purification of the surroundings.

Agnihotra is based on ancient bioenergy. Biorhythm of sunrise and sunset are the times at which agnihotra offers maximum healing to atmosphere and humans.

Apart from India, Agnihotra is being practiced in Australia, Peru, Venezuela, Argentina, Brazil, Chile, Panama, Poland, Germany, Philippines, Spain and USA. Some of these researchers observed that agnihotra can

- Patch up ozone hole in the Stratosphere
- Cure disease epidemics and
- Remove harmful radiation and radioactivity

They advocated that the more agnihotra we do, more prana there is, the more the mind and atmosphere are purified and the more human transformation would be effected. It was observed that state of our Psyche is directly dependent on the quality and quantity of prana available from agnihotra.

When the poisonous Methyl Isocyanate (MIC) gas leaked from Union Carbide factory at Bhopal, hundreds of people died and thousands were hospitalized but there were two families came out unscathed. These families were regularly performing agnihotra (havan). This observation implies that agnihotra is a proven anti dotes to pollution.

3.1. Heavy Metal analysis:

The results of analysis of heavy metals in the suspended particulate matter cleared showed very high concentrations of Zinc (Zn). This is because of the escape of Zinc from homa materials like pumpkin etc. in the form of Zinc oxide, a very useful product to cure skin diseases. Many of the modern skin ointments in the market contain 5% Zinc oxide.

It is therefore proved through our experiments, beyond doubt that homam has a curative effect on skin diseases.

3.2. Bottom ash Analysis:

The results of analysis of bottom ash for heavy metals showed Lead (Pb) and Manganese (Mn) as expected. The details are not presented in this paper for brevity.

4. Conclusions

Based on the research of the authors, and the scientific evidences found during experimental field studies conducted at Sri Devi Veda Vidyalamu, Srisailam, during Chandi Homam, the following conclusions can be drawn

- Homa was found to be one of the most economical means of purifying environmental pollution.
- Global effects such as patching up of ozone hole, removal of harmful radiation and radioactivity are proved by scientists round the world.
- The experimental studies conducted at Sridevi Veda Vidyalayamu clearly showed that the emissions during homam are not only non toxic but are beneficial to the environment.
- The ash collected from the bottom showed manorial value and therefore agnihotra farms were developed in some countries.
- The ash has also exhibited medicinal values.
- Zinc Oxide present in the particulate emissions in our experiments has a curative effect on skin diseases. Zinc oxide offers excellent protection against Ultra Violet Radiations (A and B).
- While Lead (Pb) is found to be within permissible limits, Manganese (Mn) is found to be slightly in excess of permissible limits prescribed by Central Pollution Control Board (CPCB). This is good because of the health benefits of Mn.
- Manganese ensures healthy bone structure, bone metabolism, helping in building essential enzymes for building bones. It acts as a coenzyme to assist metabolic progression in the human body. Apart from these, there are other health benefits of manganese actively involved in forming connective tissues, absorption of calcium, proper functioning of thyroid, sex hormones, regulating blood sugar level, and metabolism of fats and carbohydrates. Manganese is very important for normal functioning of the brain and nerve areas of our body.

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