History of alchemy

Science, Chemistry



History of Alchemy Alchemy is commonly regarded as a pseudo-science whose medieval practitioners attempted to turn lead into gold but it is much more. Alchemy has a rich, mystical history involving several fields of study including philosophy, metallurgy, astronomy, medicine and chemistry. Due to the various areas of study involved, the objectives and outcomes of alchemic experimentation and studies vary widely. Included are the attempts to discover a liquid that extends life and transforming base metals into more valuable metals through the use of philosopher's stones. Although many terms, fundamental laboratory procedures and theoretical structures used by alchemists are still employed by scientists and medical practitioners today, alchemy is unlike modern science in that it included practices and philosophies associated with spirituality, religion and mythology. Alchemy is a gift from the gods. The mythological son of Greek god Zeus and Olympian god, Hermes, is said to have founded alchemy, an amalgamation of Greek philosophy with the sciences and crafts. These principles were founded, not in Greece but Egypt by Arab intellectuals in the seventh century then European scholars adopted the concepts of alchemy during the 12th century. From then until the 1700's "chemists" in Europe practiced the art which was dismissed by intellectuals as not philosophical enough and by the ruling class which was fearful of gold being created in laboratory which would undermine their wealth and authority. Many monarchies forbid the alteration of metals while kings secretly supported alchemists hoping to enrich themselves. Alchemy was not respected by scientists and intellectuals throughout Europe who "distanced themselves...casting alchemists as charlatans." (Alchemists, 2011). Roger Bacon (1214-1294), a noted scholar and inventor, was also a

physician and England's first alchemist. His achievements, such as introducing gunpowder to Europe, were perceived as tools of the devil by the superstitious people of the medieval era. At best he was considered a magician but Bacon's achievements were not met with gratitude but with suspicion and scorn. The Church thought his writing and experiments to be especially harmful. "The Church took her place as one of his foremost adversaries, and even the friars of his own order refused his writings a place in their library." (Cockren, 2012). Bacon was sent to prison in 1279 and forced to repent his actions. Ancient Chinese folklore refers to alchemy, specifically the first Taoist pope Chang Tao-Ling born in A. D. 35, who was entirely devoted to meditation study refusing offers of high positions in the ruling regime. He preferred to live in the mountains of Western China where he studied alchemy and spiritual matters. He led a mystical life and according to ancient myth possessed a formula that extended life. Alchemy was practiced in China before the Christian era and its origins likely extend further back in Chinese history. An alchemy practice that includes a chemical, spiritual and personal aspect to create the Philosopher's Stone was called the Magnum Opus, or The Great Work. The Stone was a red colored material capable of transforming metals like iron into silver and gold. " Discovering the principals of the Philosopher's Stone was one of the defining and at the same time seemingly unobtainable objectives of Western alchemy." (Cockren, 2012). The seven metals of alchemy; gold, silver, mercury, copper, iron, lead and tin were used in a medical capacity. The remnants of this line of thought linger even today. Copper bracelets are sold in stores and on television claiming to have healing properties. Metals

correspond to seven "planets" which, in turn, directly relate with particular fundamental personalities, qualities and body functions. Mars is viewed as active and masculine aligned with iron, blood circulation and muscles. Venus is passive, artistic and feminine associated with copper, the kidneys and nutrition. Jupiter the theorizer is connected to tin, the liver and gall bladder. Saturn the master of death is associated with lead, the skeleton, hair, nails and skin. Mercury the communicator connects with the nervous system and lungs. The Sun the day-king, fittingly, is associated with gold, the heart and spine. The Moon, the night goddess, is associated with silver, brains and the fluids. (Morrell, 1998). Alchemical symbols were used to indicate elements and compounds. The most common are Antimony, Arsenic, Bismuth and Copper. Antimony-The metal antimony symbolizes the animal nature or wild spirit of man and nature, and it was often symbolized by the wolf. Arsenic was widely used by early alchemists and was also sometimes represented by the image of a swan. Bismuth-Although mentioned in alchemical texts it is uncertain what role Bismuth played in alchemical processes. Copper is one of the seven metals of alchemy (gold, silver, mercury, copper, lead, iron & tin). David Weiztman http://www. ancient-symbols. com/alchemy symbols. html Alchemy is an ancient and often misunderstood art that combined elements of astronomy, philosophy, the earth, the human body, chemistry, mysticism and metals intended to both heal and transform into different metals by use of the Philosopher's Stone. Alchemists have been revered, persecuted, feared and reviled partly due to the disciplines mysterious nature and supposed ability to change the nature of metals. Turning lead or iron into gold was both intriguing and distrusted among those who wrote and

enforced the laws, intellectuals and commoners which instigated a variety of opinions concerning their works and writings. Today, alchemy is largely a forgotten art but many of the techniques and terms coined by alchemists are still in use. Works Cited Alchemists, ancient and modern. The Economist. February 24, 2011. Web. December 5, 2012. http://www.economist.com/node/18226821 Cockren, A. History of Alchemy. Web. December 5, 2012 http://www.alchemylab.com/history_of_alchemy. htm Morrell, Peter. The Healing Power of Metals. 1998. Web. December 5, 2012 http://www.homeoint.org/morrell/articles/pm_metal.htm