

ALCHEMY

Some scholars say the name *alchemy* comes from the Greek *cheo*, meaning “I pour” or “I cast,” since much of alchemy has to do with the working of metals. But many believe the word comes from the Egyptian *Khem*, meaning “the black land” (land with black earth), and see that as indicating Egypt as alchemy’s place of origin. The Arabic article *al* was added to *Khem* to give *alchemy*. Later, as the science (some call it a pseudoscience) progressed, the article was again dropped, to become *chemistry*. Alchemy certainly is the early history of chemistry.

There was an early Egyptian alchemist whose name was Chemes. He wrote a book, called *Chema*, about his experiments trying to turn base metal into gold. Some few believe that the word alchemist comes from his name.

Whatever the origin of the word, it seems certain that the practice of alchemy had its beginnings in the Hellenistic culture of Alexandria, Egypt, which was the center of the world of learning at that time. In fact alchemy is a blending of Egyptian technology, Greek philosophy, and Middle Eastern

mysticism. The first alchemists were the metallurgical workers who prepared precious metals for the nobles but also produced cheap substitutes for the less affluent. These cheaper substitutes were often disguised to look like the more precious metals. It didn't take long for the idea to develop that it might be possible to actually produce the precious metals themselves. This idea, in fact, was backed by Aristotle's theory that there was a prime matter that was the basis for all substances. Astrology added the concept that the greater outer world of planets and stars reflected the inner world of humankind: a macrocosm and a microcosm. It was believed that under the proper astrological influences, it should be possible to change one metal into another; for example, lead into gold. In the same way that humankind perfected, going through death and rebirth, so might metals perfect and grow from one base form to another higher form.

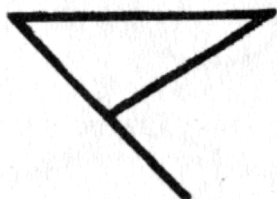
The *Philosopher's Stone* was the term given to a stone that—if it could be developed—would serve as the catalyst to transform metals and other raw material into gold. Although referred to as a stone, it was not necessarily an actual stone for it was believed that it might be a combination of fire and water, or other unlikely mixtures.

So the original alchemy became an operation of passing substances through a series of chemical processes. The actual workings were noted, but in symbolic form to protect them from the dabblers and the uninitiated, and also to protect the alchemists themselves from charges by the Church that they were involved in heresy. The metals were represented by the astrological sign of the controlling body, and frequently the components and the actions were assimilated with Greek and Roman myths and mythological beings. The more the individual alchemists tried to hide and protect the results of their experiments, the more obtuse and confusing became much of what they did and said. In describing necessary actions, they

used language such as: “When we marry the crowned king with the red daughter, she will conceive a son in the gentle fire . . . the dragon shuns the light of the sun, and our dead son shall live. The king comes forth from the fire and rejoices in the marriage.”¹

Hermes Trismegistus, also known as “Thrice Great Hermes” (it is from his name that the term *the hermetic art* was given to alchemy), has been variously described as an earthly incarnation of the Egyptian god Thoth and as an Egyptian priest, or a pharaoh, who taught the Egyptians all their magic. He is credited with having written several thousand books, including the Emerald Tablet, or *Tabula Smaragdina*, which contained all the hermetic teachings—the thirteen precepts—including the fundamental principles for the *Grand Arcanum*, or “great secret.” There are many references to the Emerald Tablet in alchemical writings.

Instruments



Crucible



Dropper



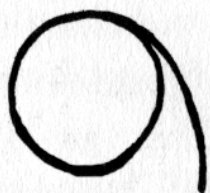
Grille



Receiver

1. *Tractatus aureus* (1610). The *Tractatus aureus* is an alchemical treatise in seven chapters attributed to Hermes Trismegistus.

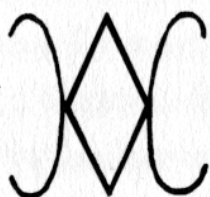
Instruments (continued)



Retort



Scull



Still



Wick

Weights and Measures



Ounce



Dram



Scruple



Pinch

Weights and Measures (continued)



Pint



Pound

Spirits



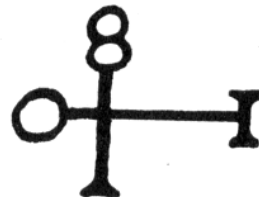
Copper



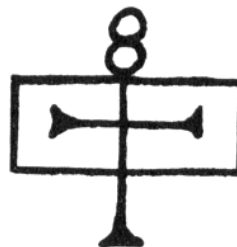
Mercury



Silver

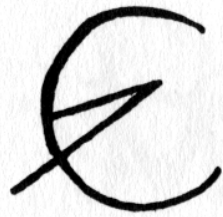


Tin

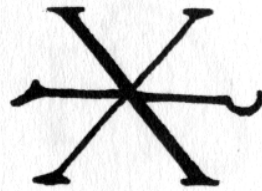


World of Spirit

Seasons



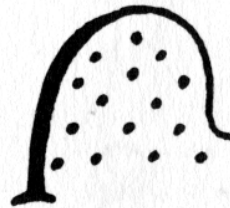
Spring



Summer

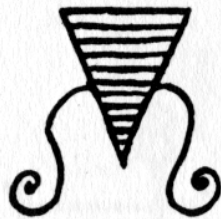


Autumn

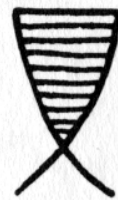


Winter

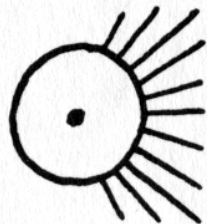
Materials



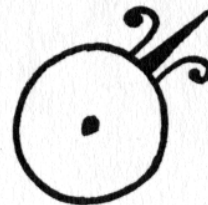
Gold (i)



Gold (ii)

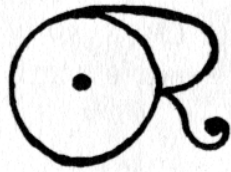


Gold (iii)

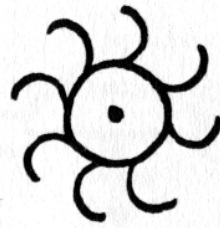


Gold (iv)

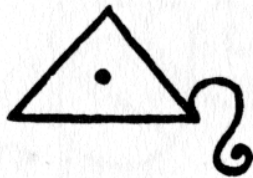
Materials (continued)



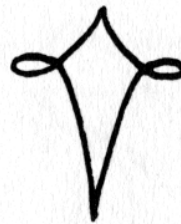
Gold (v)



Gold (vi)



Gold (vii)



Silver (i)



Silver (ii)



Silver (iii)

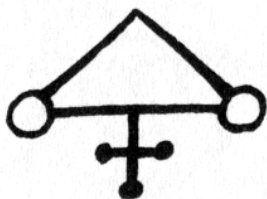


Alum

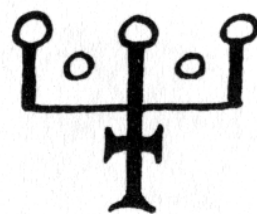


Antimony

Materials (continued)



Arsenic-Sulfur



Aqua Vitæ



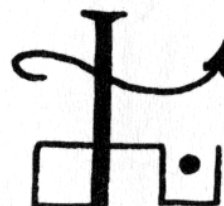
Bismuth



Borax



Brass



Burned Alum



Burned Hartshorn

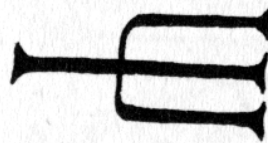


Caustic Lime

Materials (continued)



Chalc



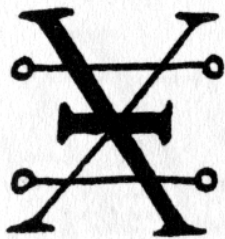
Cinder



Cinnibar



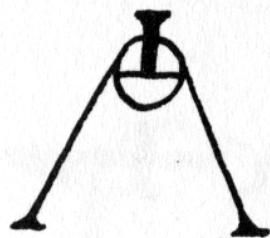
Clay



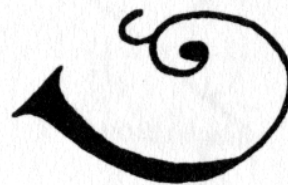
Copper



Cribbled Ashes



Crystal

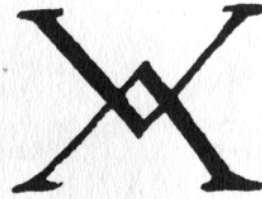


Eggshells

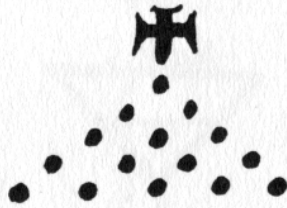
Materials (continued)



Ginger



Glass



Gravel



Iron



Iron Filings



Lead

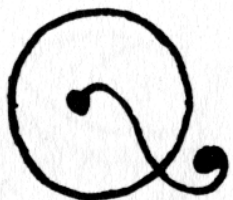


Lime



Magnesia

Materials (continued)



Manure



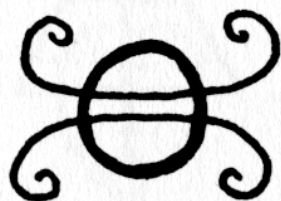
Mercury



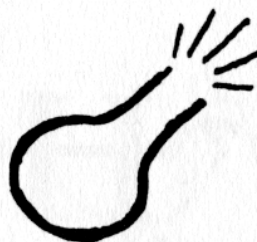
Nickel



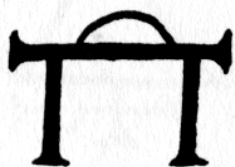
Niter Flowers



Niter Oil



Nitric Acid

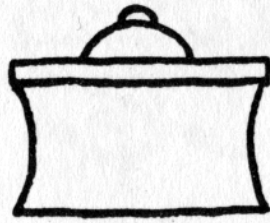


Potash

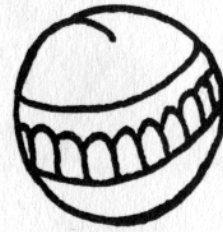


Red Arsenic

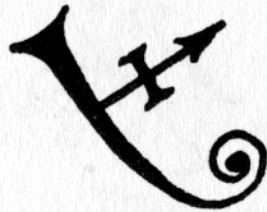
Materials (continued)



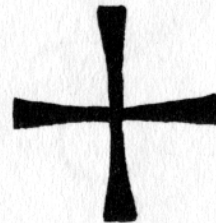
Rock Salt



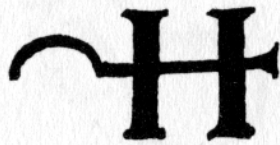
Sea Salt



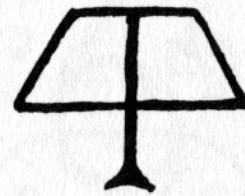
Soapstone



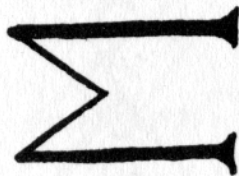
Soot



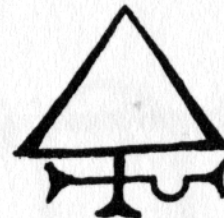
Steel



Stone

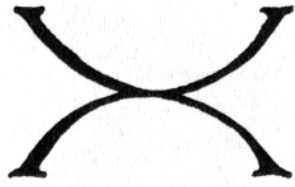


Sugar



Sulfur

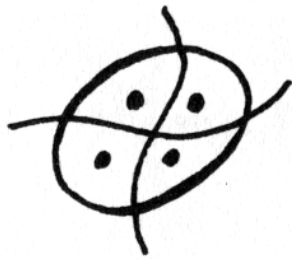
Materials (continued)



Tin



Urine



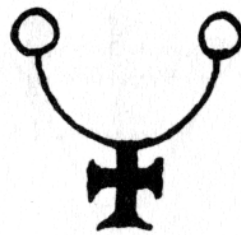
Verdigris



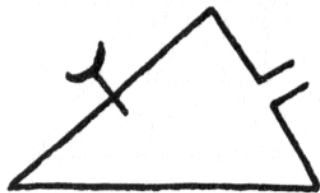
Vinegar



Vitriol



White Arsenic

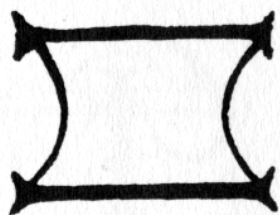


Wine Spirit



Wood

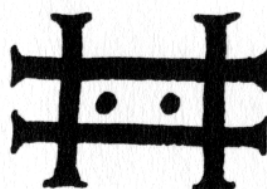
Materials (continued)



Yellow Arsenic

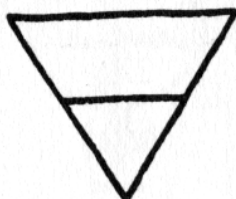


Yellow Wax

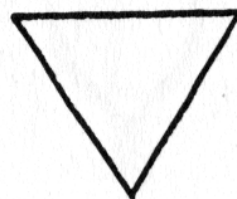


Zinc

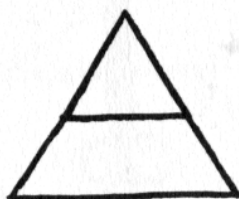
Processes



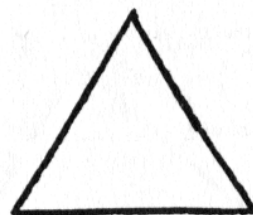
Blackening (melanosis)



Whitening (leucosis)



Yellowing (xanthosis)



Reddening (iosis)

Processes (continued)



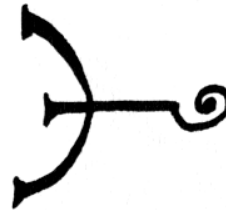
Amalgam



Amalgamation



Boil



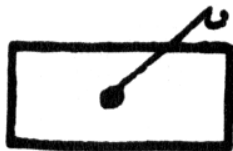
Compose



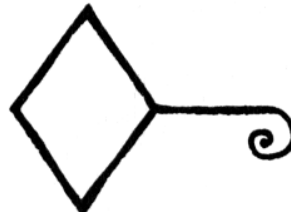
Distill



Essence

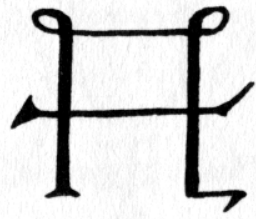


Fumes



Filter

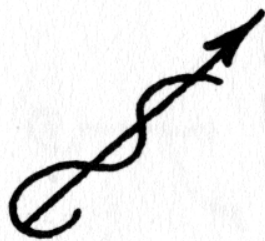
Processes (continued)



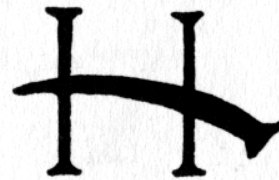
Mix



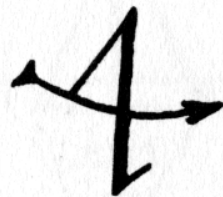
Powder



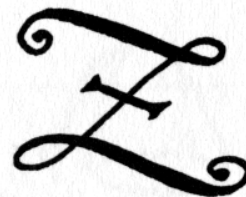
Purify



Pulverize



Rot



Solve

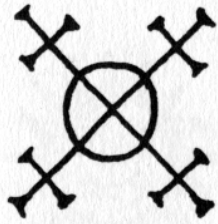


Sublime

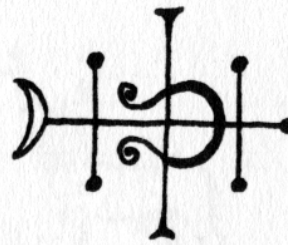


Take

Processes (continued)



Torrefaction of Gold



Torrefaction of Silver

Animals, Birds, etc.



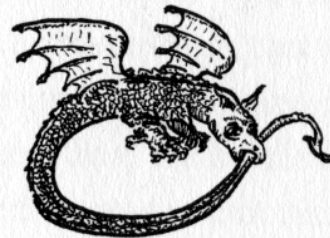
Blackbird (blackened mass)



Lion (acid)

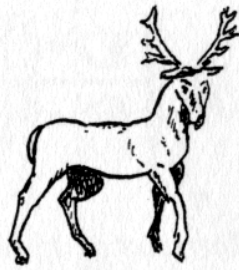


Moon/Lunar

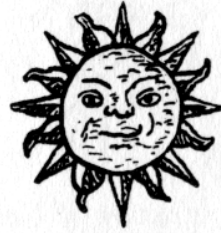


Ouroboros (completion)

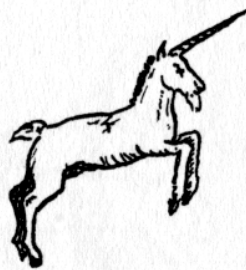
Animals, Birds, etc. (continued)



Stag (soul)



Sun/Sol



Unicorn (spirit)



Birds (volatilization)