

THE SINO-INDIAN ORIGIN OF CHEMEIA AND CHUMEIA AS SYNONYMS IN GREK, SIGNIFYING ALCHEMY

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ABSTRACT: *In China the antecedent of alchemy is represented by the god of longevity emerging from the peach. The first synthetic drug, Kim-Yeh, red colloidal gold, signified gold-cum –herbal juice. Kim-Yeh=Kimiya (Arabic) =chemeia (Greek). Translated this gave Chrusozomion=Gold Ferment, specifying the drug. Rasayana was translated as Chumeia, herbal juice-incorporate and signified the art alchemy. Chemeia was Chinese and Chumeia, Indian. Originally each signified both, a drug of longevity and the art, alchemy. Finally the art of making red gold was misunderstood as the art of making gold itself.*

1. A scientific communication first states the problem, next it explains the method of approach, finally the main discussion leads to a clear conclusion. There should be no missing link anywhere. Now history of a science is also part of that science. Accordingly we have to explain, what is alchemy and thereby reveal how, in Greek, it came to acquire two names, when one should have fully sufficed. In dealing with alchemy the method employed is that of biology. This suggests showing at first, its antecedents or the forerunners of alchemy. Next its earliest stage, represented by the first preparation and with it how the art came to be christened as such. Thirdly how it developed the stage marking its zenith. Finally how it degenerated and has survived at present. When the subject has been properly handled it would have followed the suggestion of De Ridder and Deonna (1927) that it is presented as “a whole whose essential parts are logically to be deduced from one another.” This results when we deal with the Natural History of alchemy. It then arranges the items in a chronological order each connection that preceded before, as also what followed next. We are now required to begin with the antecedents of alchemy, with the stages that preceded it. Then we must begin by showing how and why man took to the antecedents of alchemy themselves.
2. The early man was a hunter and a nomad. As Braidwood (1979;99) states, “Before the agricultural revolution most men must have spent their waking moments seeking their next meal.” They lived always facing hunger. With such conditions of food supply they were unable to tolerate social parasitism. The aged, unable to partake in hunting or contribute his share in the maintenance of communal life, was felt as a parasite and had to be eliminated. He was first killed and later excommunicated as an ascetic in a forest. There is the Sanskrit word *Pravesanam*, signifying firstly, killing,

slaughter, and a next banishment, exile these two meanings of the same word correspond to the two stages in which the early Aryans, as huters, handled their aged. Even today we find that, when an Eskimo feels himself to be old and a burden upon others as bread earners, he quietly leaves his tent at night and allows himself to be frozen to death. We can now turn to the ascetic as aged and weak who needed an energizer which could put some strength into his weak limbs, when he could easily collect food stuffs from the resources of a forest. In China the ascetic discovered Ephedra to be such a medicinal plant. It is an energizer and euphoriant. It finally came to be called Ho-Ma, fire-Yellow hemp, (Ho=Fire yellow; Ma=Hemp) since Ephedra stalks were yellow; Ma=Hemp) since Ephedra stalks were yellow and thin, resembling hemp fibres. From the Chinese the Aryans came to know it. Thus in Iranian it is called Homa, exactly as in Chinese and in Sanskrit So-Ma, H of Iranian, corresponds to S of Sanskrit. The extract of Ephedra, called *soma* juice, proved to be an anti-fatigue drink and the Aryans used it thrice a day to keep themselves alert and mobile. Such a use excludes its being an intoxicant or narcotic which *soma* is misunderstood to be. Thus began *soma* as a useful drug comparable with tea or coffee, best perhaps with Khat of Yemen, *Catha edulis*. A monograph on *Soma* is due to appear in the near future but the one on Indian Alchemy (Mahdihassan, 1977) can also be consulted here. When the middle aged Aryans felt disinclined to partake in hunting they took an extra dose of Ephedra extract and felt as energetic as their younger comrades. They accordingly looked upon it as a drug of rejuvenation. It thus also

functioned as the drug of longevity for had they remained reluctant to work they would have been exiled and life, as an ascetic in a forest, could not be long. Moreover with limited knowledge of drugs Ephedra was used for every ailment, which made it a panacea. It is the earliest medicinal plant of which there is a literary record and also archeological evidence. The word *soma* entered Sanskrit about 4000 BC when the Aryans were still hunters. It continued to be used in folk medicine upto the beginning of Christian era for Caraka (150 AD) refers to it as "Sovereign herb which is known by the name *soma* and has fifteen joints or knots per stalk," thus specifying the plant. We can assign the following stages in the history of Ephedra of utility, as an anti-fatigue drug; as promoting the longevity of the middle aged Aryan; as panacea and finally as the agency of resurrection. Stein (1932) found nomad Aryans were buried with a bunch of Ephedra twigs on the chest. In fact a drug of longevity is also the agency of resurrection.

3. The feature that goes to make a substance a drug of longevity is its red colour. This resulted from the idea that, Life=Body + Blood and Blood=Soul, and redness= Soul-concentrate. The earliest such drug was redochre which again has a long history parallel to that of Ephedra. Nothing is so important in understanding alchemy than that the drugs of longevity were preferred when they were of red colour. Ephedra bears red berries and as such is potentially red. Finally the Chinese selected peach as the best drug of longevity of vegetable origin. It is reported that a sage lived upto a ripe old age eating nothing but peach; he

was looked upon as an immortal. The importance of peach is best realized by the fact that the Chinese god of longevity, Shou-Hsing, emerges from the peach. Peach is blood red at the core, hence its importance obviously there were several drugs of longevity among the Chinese and the following three were several drugs of longevity among the Chinese and the following three were the earliest, redochre, Ephedra and peach.

4. Apart from longevity the aged ascetic needed something to strengthen his body physically. In those early times it was believed that "like makes like". Accordingly jade was recognized as a substance so hard that it can resist the weather. It was then pulverized and taken orally with milk or water assuming thereby that the body would become tough and jade-hard. Such a medicine is unique and its use represents the mentality that later conceived of alchemy. Subsequently gold was found to be more than weather-proof; it was fire -proof and correspondingly, as inscribed characters, from "Yu" jade, has developed the character, "Chin", meaning gold. Both jade and gold were drugs of longevity. Since gold was fire proof nothing could be imagined as excelling it for preserving the body from deterioration, internal, due to age, external, due to hard work and accidents. It was more than strength donor and can be called a drug of longevity. Then just as peach was the best drug to prolong life, gold was the best drug to preserve the body. But the active principle of peach was redness. Then if gold itself can become red it would be the ideal drug of longevity as whole and accordingly to prepare red-gold became the ideal of an art which later was called alchemy. They must

have tried taking as a mixed remedy, gold and a herbal drug. The latter was assumed to donate its redness as growth-soul. But the theory required that the two drugs, of preserving the body and of conferring longevity, must go together, since they cannot be separated. This would be according to a general law of nature. Here I may cite an ideal case of how "two in one" become so important. Bose (1932; 398) refers to theories of sex in fungi. A fungus, *Humaria granulata*, has two kinds of hyphae. Plus hyphae can extract from substratum, a food substance, "A", essential for ascocarp formation, but lacks the power to accumulate equally necessary substance "B" "-" another strain exists which assimilates "B" but not "A". If the two strains fuse as "two in one" all requirements are met and ascocarps are formed. Likewise red-gold was to be "two in one".

5. How red-gold was made in China need not interest us when we know how it has been made in India even at present. Gold was granulated with a file and rubbed in a mortar of granite with a file and rubbed in a mortar of granite with a decoction of Har, myrabolan, *Terminalia chebula*. After continuing this process for a couple of months there resulted a brick red powder of gold. In its makeup it was gold, the ideal drug for preserving the body, and Ha was also a recognized drug of longevity. Thus the redness of gold was attributed to Har which is a drug of longevity in its own right we are now to reveal how red gold was designated in China. It was called Chin-Yeh. Chin = Gold and Yeh =Herbal juice. Chin-Yeh = Herbo-golden complex. We have also seen that in India it resulted on using gold and the herbal extract of myrabolan. Now Chin-Yeh was pronounced Kim-Yeh in a

southern dialect of Chinese. Arabs bringing Chinese silk to the Alexandrian market came to learn of the Chinese drugs of longevity so that Kim-Yeh was Arabicized as Kimiya. With the definite article A1, the derivative, A1-Kimiya, finally became alchemy. Thus with the synthesis of red gold started the art, Alchemy. Moreover the name of the product in Arabic, Kimiya, was extended to designate the art itself. Briefly Kimiya is a drug and also an art. As substance it can rejuvenate the aged, and make a base metal grow to become gold, as art it can prolong human life and also make metals liable to rust, fire proof, which means gold. As agent it was universal in its use. A parallel case would be that of Rasayana in Indian medicine. It is also the art of conferring the same. Thus in the makeup of the first alchemical preparation there was gold and a herbal principle, it was herbo-golden complex. Its antecedents were simples, like peach, jade, gold and others, all believed to prolong life in some way.

6. When the Arabs took Chinese silk for the Alexandrian market they also carried the Chinese drug of longevity chin-Yeh, in Arabic, Kimiya. They contacted Bucharic speaking Copts as people of their own socio-intellectual caliber. The Copts transcribed Kimiya into Greek as Chemeia which they pronounced exactly as the Arabs did. This has been explained at length in the communication of 1961. The Greeks acquired chemeia from the Copts. Now the Arabs did not know what Kim-Yeh meant and thus their loan word, Kimiya, also remained unknown. All that interested the Arabs was that Kimiya was a drug that could rejuvenate that aged, prolong life and confer the vigour of youth. Then like Kimiya, Chemeia, also was a drug or substance and only next the art of longevity or Alchemy. The dual

significance of chemeia has not been recognized. It is obvious that if we grant that gold was synthesized starting from a base metal something had to be added which could bring about such a transformation. When chemeia was first used at Alexandria there was no other word for an agency like Elixir or Xerion, which came later on to specify it. It is clearly stated by Taylor (1951) that "the principle feature that is lacking in Greek alchemy is that of the Elixir or Philosopher's stone," (P.66), and that, "the idea of Elixir as medicine prolonging life was present to the Arabs and not to the Greek speaking predecessor," (P.71). Now in red gold or Kimiya, gold was only a vehicle, but the best of its kind, since it is ever-lasting in form. The active principle was its redness which is conceived as traceable to the vegetable source employed in turning yellow into red gold. Red gold then is the carrier of redness as soul and as such it is soul-incorporate. It has then also become an Elixir. It can confer longevity due to its redness as soul. That red gold was also Elixir has not been appreciated. Thus Chin-Yeh or Kimiya was Elixir at the same time just as milk once it is curdled can further transform milk into curd. Briefly Red-gold=Chin-Yeh=Kimiya=Chemeia=Elixir. We find its best conformation in Arabian alchemy where Kimiya. It has been debated if chemeia was the original word for alchemy in Greek of chumeia. The above narration leaves no doubt that chemeia has priority and means both, Elixir, and the art alchemy. Later on to outsiders and the lesser-informed the art of making red gold was easily misunderstood as the art of making gold itself and became alchemy as it is now understood.

7. It becomes necessary to show that when alchemy was first introduced into Alexandria it was the art of longevity and the drugs were herbal complexes or at least plants were used in

some way. Taylor (1951;p.38) refers to one of the earliest documents of Greek alchemy entitled, "Gold Making of Cleopatra." The alchemists or philosophers were asked to look "at the nature of plants and at the divine water, which gives them drink where upon the alchemists requested Cleopatra to tell us how the blessed waters visited the corpses and how the *medicine of life* reaches them." This would signify resurrection while Divine water would be Elixir of life, Abe-Hayat in Persian. There is no mention of mercury nor any hint to synthesizing bullion gold. In the absence of any indication to the contrary "Gold making of Cleopatra", can be interpreted as that "of making red gold" Kimiya or Chemeia.

8. Some decades later the Chinese themselves visited Alexandria, taking their silk. Direct contact with the Chinese enabled the Greeks to translate the loan word, Chemeia=Chrusozomion=Elixir of Gold = Herbo-golden complex = Red colloidal gold. What then can be further affirmed would be that the active principle concerned was growth-soul of a perennial plant capable of inducing its recipient to grow to be everlasting man as immortal and metal as gold. What then can be further affirmed would be that the active principle concerned was growth-soul of a perennial plant capable of inducing its recipient to grow to be everlasting, an as immortal an metal as gold. We can assign dates to the introduction of the word Kimiya into Arabic as about 200 BC, and of chemeia into Greek about 100 BC, and of Chemeia into Greek about 100 BC, remembering that Alexandria was founded C. 300B.C.
9. When Alexandria became more famous Indian merchants were also tempted to visit it. Basham (1963; p, 488), writes that "Indian

ascetics occasionally visited the west and that there was a colony of Indian merchants at Alexandria. The possibility of Indian influence on Neoplatonism cannot be ruled out." And we know otherwise that wherever there was Neoplatonism there was also Gnosticism as well as alchemy, all being in some way cults of immortality. Then contacts between Indians and Greeks led to the literal translation of the Indian word, Rasayana =Chumeia. Rasa =Chumos (Greek)=Herbal juice; same as Yeh in Chin-Yeh, discussed before. Gildemeister (1876; 30, 534) has correctly explained, "from Chumos can be derived chumeia meaning, medium containing juice" or juice-incorporate, which would be the name of a herbal medicament. Rasayana itself would be "Vehicle containing juice." Attempts to improve upon the translation of Rasayana other than chumeia has not given a better result. We now realize that chemeia was Chinese in origin and chumeia, Indian. Chumeia being a Greek translation was fully connotative and was retained as the name of the art, alchemy. Chemeia, its synonym, was a loan word which had remained unknown in significance. When its meaning was learnt it was translated as Chrusozomion so that chemeia, as such, had to disappear. Once Chrusozomion conveyed the sense of "ferment of gold", which would signify "Elixir or Gold", Chrusozomion, represented the substance and Chumeia, the art of using that substance, or alchemy. Later on even in Arabic the substance was designated or specified as Iksir or Elixir, but the dual significance of Kimiya continued to remain. Briefly Chrusozomion was only Elixir, and Chumeia only the art of alchemy in Greek. But in Arabic, Elixir was a substance but Kimiya was both, substance or Elixir as well as the art of alchemy.

10. We have emphasized that the Chinese god of longevity emerges from the peach and peach is an emblem of longevity. This was because peach is blood red at the core, but red god or Chin-Yeh was only brick red. This suggested that the ideal drug should be red like blood. Now Cinnabar was the one substance that was blood red, and as simple had been used before. All that was required was to see that either cinnabar becomes fore-proof like gold or gold becomes red like cinnabar. We have seen that red gold was made in India and accordingly in its make-up it was gold plus a herbal principle. In Cinnabar-gold, cinnabar likewise was the drug of longevity in its own right. Moreover it was found interested with the dead so that it was also used as the agency of resurrection. In fact both Ephedra with the Aryans and Cinnabar with the Chinese, each was the agency of longevity as also of resurrection. In fact both Ephedra with the Aryans and Cinnabar with the Chinese, each was the agency of longevity as also of resurrection. Soma was the best of all Rasayana medicaments and Caraka extols it as the "Sovereign Herb", while Cinnabar was the highest inorganic drug with the Chinese. This virtue fully qualified the preparation, chin-Tan or Cinnabar-gold. In India it was called Makaradhvaja meaning he emblem of the god of fertility. A gold cinnabar compend, then was the answer and it is still made in India. Cinnabar is mercury is taken and twice the quantity of sulphur is mixed with it a little gold is also added. All the three substances are subjected to sublimation, when the resultant becomes vermilion or synthetic cinnabar with traces of gold. Gods also sublimes in traces along with mercury. The product pulverized and lavigated appears blood red and contains traces of gold. According to its makeup it is cinnabar gold. The Chinese designation reveals its composition. It is called Makarashvaja.

Makara, literally crocodile, is really crocodile-god as god of fertility. Makara is dual natured, anteriorly crocodile, posteriorly fish, when both crocodile and fish are emblems of fertility. Thus Chin-Tan or Makarashvaja marks the climax reached by alchemy. This began with chin Yeh, red gold, and reached its Zenith with Chin-Tan, Cinnabar gold. We have seen that peach was blood-red, and on that account the god of longevity emerged from it. Now cinnabar gold is as red as peach, and Makaradhvaja was the name coined for it. The name suggests that the preparation would confer fertility ad thereby longevity.

12. We are now in a position to briefly consider the current theory. According to it alchemy was born at Alexandria but there was no antecedent, either in Egypt or in Greece. It was like a foundling child with its origin unknown. We are told that the Egyptians called their land Khem, black Land, Fertile Land, whence chemeia came to signify Egyptian art, literally, black art, with regard to chumeia, the synonym of chemeia its root is cheo, "I cast, I pour", it finally came to signify metal ingots, being metal poured to form ingots. From Cheo, the final derivative became chumeia, the art of making metal ingots. Gold preparations were however never made ingot-wise but only in small quantities as consumable drugs. I need not prolong the discussion any further. Hopkins (1934), deals with Greek alchemy emphasizing above all "blackness" of the inorganic preparations with which alchemy was supposed to have started. Mercury sulphide is black but on sublimation it becomes red sulphide or cinnabar. He never speaks of gold being incorporated into it.

11. We have explained that alchemy began by preparing red gold, the first synthetic drug

known in history. It reached its highest stage with cinnabar gold, which is blood red. Both these preparations are available in India. The first is called Svarna-Bhasma, calcined gold, and the latter Makaradhvaja, cinnabar-gold. The active principle of red gold was the growthsoul of a perennial plant. In cinnabar gold, mercury was soul in its material form, volatile and indestructible unlike growth soul in the form of juice. Thus there are two kinds of soul. The original idea of soul in medicine needs a separate treatment. In man himself there are recognized five souls. Correspondingly in drugs the active principle, considered as soul, also differs. Thus arose terms like pharmacon, los, and Xerion in Greek to be discussed in a separate article. Once mercury was looked upon as soul, equivalent to cosmic soul or universal soul, logically it could induce any recipient to grow until it assumes an everlasting form. A mercurial introduced into the human system should make man immortal. Then a base metal would grow to its fullest extent identified as the stage when it becomes fire-proof which means gold. The greedy soon become a victim of such a theory and persisted in trying to make gold itself. Thus alchemy originated as the art of making red gold, but degenerated as the art of making gold itself. Now both the original and the degenerated forms of alchemy have survived. Fortunately the alchemy of the greedy is as good as dead. The original form of alchemy has persisted and continues to make standard medicaments of colloidal metals. These are duly recognized in Indian and Unani systems of medicine being called Bhasmas or Kushtas, respectively, signifying calcined metals.

Summary

Alchemy is defined as the art of synthesizing gold from base metals further believed to have

been born at Alexandria but without antecedents, either in Greece or in Egypt. Another view takes it to china but even here its beginning remains unknown. Alchemy is really a cult of longevity with four stages of development. In china simples, such as jade, gold, peach and cinnabar were used as conferring longevity. Moreover it was believed that blood is soul and redness is soul-conferring longevity. Moreover it was believed that blood is soul and redness is soul-concentrate. Peach being blood-red at the core, become that best among vegetable drugs of longevity, so much so that the Chinese god of longevity emerges from it Nothing can be clearer as antecedent of alchemy. In fact it specifies china as the birthplace of alchemy. Moreover there is a theory that "Like makes like". Accordingly gold being fire Proof would make the human body resistant to all deterioration. With redness as soul added to it life would be prolonged forever. To prepare red gold as drug of longevity started the art, alchemy. This marks the second stage. When gold is formed. According to its makeup the product was called Chin-Yeh+ in Chinese Chin=gold and Yeh=Herbal Juice when Chin-Yeh=Gold-cum-Herbal juice when chin-Yeh=Gold-cum –Herbal juice, a herbo-golden complex. Dialectally pronounced Chin-Yeh=Kim – Yeh. Pre –Islamic Arabs importing Chinese silk for Alexandrian market also acquired this drug and Kim-Yeh was Arabized as Kimiya. This was passed on the Bukharic Copts who transliterated it into Greek making, Kimiya=chemeia, but pronounced it exactly as the Arabs did. Both in Arabic, Kimiya, and in greek, chemeia each was first the drug of longevity, or substance, and next the art of longevity, Each had a dual significance. From Kimiya, finally as Alkimiya, arose the word alchemy.

Later, Chinese went to Alexandria and contacts between them and Greeks enabled translating Chemeia into Greek as chrusozomion=Gold-Ferment, for what was originally Gold+juice. Then Chrusozomion specified the substance of drug while chemeia was retained for the art, alchemy.

Later came Indian merchants who also had their Rasayana drugs of rejuvenation cum-longevity. This was literally transliterated when Rasayana = Chumeia. Its root was Rasa=Juice = Chumos=Yeh. From chumos arose the derivative chumeia as juice-incorporate, again signifying primarily a drug and next the art of longevity. But by now chrusozomion was the substance so that Chumeia was retained for the art of longevity. Both Chrusozomion and Chumeia were connotative being Greek, while chemeia, as loan word, was discarded. However chemeia was Chinese and Chumeia was Indian in origin.

Now red gold was only brick red. The ideal drug of longevity had to be blood red for blood was soul and a drug, which is blood red, would be soul-concentrate. Now cinnabar was blood red and if gold was incorporated into it, cinnabar gold would be the ideal drug of longevity. Hence mercury, sulphur and a little gold were all sublimated to produce vermilion or synthetic cinnabar with traces of gold. This product is called Chin- Tan according to its makeup. Chin = Gold and Tan = Cinnabar. In Cinnabar – gold mercury was soul in its material form. Mercury is volatile as soul should be and was also indestructible unlike growth soul of vegetable origin which is totally destroyed by fire. This makes Chin-Tan superior to Chin-Yeh. Chin-Tan, Cinnabar-gold is called Makaradhwaja, which above all confers the virility of youth. This preparation marks the third or highest stage of development of alchemy. Now an art that

made red gold was easily misunderstood by the greedy as the art of making bullion gold. This represents its degenerated or last stage. Both the art of preparing colloidal metals as drugs and of pursuing the synthesis of gold from base metals have survived the former prepares Bhasmas or Kushtas in Ayurvedic and Unani medicine respectively. In china, peach as antecedental to alchemy and red-gold and cinnabar-gold, as alchemical preparations all contained redness as the active principle.

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