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Alchemy

by Alan G. Hefner

Alchemy is a major branch of Western occult science, but for many it is a most misunderstood and ridiculed subject. It is misunderstood by many because when hearing the purpose for transmutation of metals, transforming base metals such as copper and iron into gold, they are inclined to think alchemists were men trying to get rich quick. However, on the whole, this was not true; many alchemists were serious minded men practicing their art, or science as they referred to it; however, there were frauds and charlatans.

But, to fully understand the alchemical process and its purpose one must first comprehend the thought pattern of the alchemists. This comprehension is partially achieved by temporarily abandoning scientific thought, especially concerning modern chemistry, although as will be seen alchemy was the forerunner of chemistry. The reason for this abandonment is that the thought pattern of the alchemist was different. He only had access to knowledge of materials and minerals of his day; this was all he had to work out his formula, which at times seems ridiculous in the light of current scientific knowledge. In short, alchemists could only describe the workings of materials in the terms they knew.

One indication between the thinking of alchemists and current scientific thought is that the alchemists searched for ideas of the past because they thought the "ancients" knew the secrets of their work and was able to perform it, and their effort was to understand their books; whereas, modern scientists take present knowledge and build unto it so in the future information and products will be discovered that have never been known before. It can be said; the alchemists looked backwards while the present scientists look foreword. Their backward stare did two things for the alchemists; it led them to the origins of the alchemical theory and to its inevitable failure.

The origins of the alchemical theory stretched back to Greece, particularly to the time of Aristotle and his students, and other Greek writers of medicine. This is not surprising since the Greeks initiated theoretical science, and their conjectures were influential throughout the academic world. Although the alchemical theory originated with the Aristotelians there is evidence that alchemy was practiced in Egypt. The working with gold in Egypt was assigned to a priestly class centered in the temple of the god Ptah at Memphis. Ptah was the patron of smelters and goldsmiths, his temple was "goldsmithy," and his priests were distinguished by such titles as "Great Wielder of the Hammer," and "He who knows the Secret of the Goldsmiths." As further evidence, the alchemist Zosimos of Panopolis, writing about 300 CE, said, "I have examined in detail a furnace in the ancient temple of Memphis..." and he indicated that it was similar to ones used by alchemists. Also there are writings on papyri of recipes for the preparation, or falsification, of silver, gold and other precious stones.

However, the various terms, which the alchemists adopted from the Greeks, had different meanings than they presently do. For example, what became the alchemical process and practice was based on doctrines involving *matter*, *form*, and *spirit*, which possessed different meanings than their current ones.

When speaking of matter, for example, it is currently held that there are different kinds of matter; sulphur and iron are different kinds of matter. But the Aristotelians held there was just one kind of matter only in different shapes; to them sulphur and iron was of the same kind of matter but only in different shapes. Currently when speaking of the shape or form of something the understanding it that its geometrical shape is being referred to; but for the Aristotelians there was just one kind of form; and, according to the Aristotelian theory matter changes shape through the transformation of the qualities of the elements within the matter. Then there is the term spirit which currently can mean either a volatile

liquid, or a courageous attitude, or an incorporeal life; but in Grecian times the word *spiritus* or *pneuma* meant literally "breath," and could be applied to a vapor, gas, disembodied spirit, or even to the Holy Ghost. The point is to comprehend the alchemical process one must understand the alchemist's meaning of the terms he uses.

The Aristotelian theory of the four elements of matter was based on a creation theory or myth. All matter was assumed to have come from *prima materia*, or prime, chaotic matter, which might only come into actual existence if impressed by "form." The "form" rose out of the chaos of prime matter forming the four elements: fire, air, eater, and earth. Creation by the god was the result of blending these "simple bodies" together in the correct proportions to produce the infinite varieties of life.

According to Aristotle, the four elements are distinguishable from one another by their "qualities." The four primary qualities are fluid or moist, dry, hot, and cold. Each element possesses two of the primary qualities while the other two are contraries and cannot be combined. Therefore, the four possible of paired qualities are: hot and dry = fire; hot and fluid (or moist) = air; cold and fluid = water; cold and dry = earth. In each element one quality predominates over the other: in earth it is dryness; in water it is cold; in air, fluidity; in fire, heat.

Transmutation supposedly was the obvious consequence of this theory: any element may be transformed into another through the quality which they have in common. Thus, fire can become air through the medium of heat just as air can become water through the medium of fluidity, and so on. Also two elements can become a third by deleting one quality from each: by deleting the dry and cold qualities, fire and water become air, and, by parting with the hot and fluid qualities, the same elements become earth.

Thus, material transmutation is processed through quality changes in matter. These changes were purposely made so to purify matter, and were achieved through burning, calcination, solution, evaporation, sublimation, and crystallization. It was reasoned that if copper and gold were metals consisting of fire, air, water, and earth in differing proportions, then why not change the elemental proportions of copper so to adjust them to the elemental proportions of goal. This was the crux of the alchemical theory; the changing of the elemental proportions in base metals to make rarer ones such as silver and gold.

Thus far Aristotle's theory was correct; decomposition of matter must occur in order to in act change or transformation. Aristotle also from the observance of nature recognized that certain types of change do not occur; a horse does not change into a lion or a stone. Change, therefore, was naturally regulated, but after being resolved into less highly specified kinds of matter the material could assume other forms, such as in maggots. So this theory appeared to indicate that if any substance was reduced sufficiently to simple matter, that substance could be given the form of any other substance, and, in theory, there was no reason to think that any substance was incapable of being changed into any other.

Again from nature, the Aristotelians, as well as primitive people long before them, saw new things come into being. The most obvious and important change of this kind was the coming-to-be living organisms, and the first problem was to find why new creatures with complete organization (form) should arise where no creature was before. They knew or suspected there was a cause for this; and they named this cause spirit, or *spiritus*. Another term of the Greeks for spiritus was *pneuma*, meaning breath. They believed a god or some supernatural being breathed life into the new creatures which gave them existence. Therefore, to them, everything had a spirit, or spiritual life, but only the god or supernatural being was purely spiritual.

Such belief was previously recorded: They (the Egyptians) say

> these gods (Isis and Osiris) in their nature do contribute much to the generation of all things, the one being of a hot and active nature, the other moist and cold, but both having something of the air; and that by these all things are brought forth and nourished; and

> therefore every particular thing in the universe is perfected and completed by the sun and moon, whose qualities, as before declared are five: a spirit (breath) or quickening efficacy, heat or fire, dryness or earth, moisture or water, and air, of which the world does consist as a man is made up of head, hands, feet, and other parts...And therefore they called the spirit Zeus which is such by interpretation, because a quickening influence is derived from this into all living creatures, as from the original principle; and upon that account he is esteemed the common parent of all things. (Diodorus Siculus, *Bibliotheca Historica* [c. 50 BCE])

The alchemical process was still following a natural course. Old matter wears out, decays, whether naturally or man caused made no difference, through decay it became the raw material once more malleable (like prima materia) so to be able to take on knew qualities. The alchemist were thinking of this malleable material like a new seed of a plant; when the plant dies it turns to seed, the feed germinates in the ground giving birth to a new plant. This new plant, however, was usually the rejuvenation of the decayed plant; and when the new plant or other forms of life was entirely different the alchemists said the new form of life had been breathed into it by some supernatural being and/or helped in its growth by the sun and moon. All this was in keeping with their observations; this was the natural birth process, breath from the heavens breathed new life. Everything else required could be explained: for a seed to germinate and grow it needs the warmth of the ground, which comes from the sun, just as the fetus needs the warmth of the womb. And yet, this knowledge did not help solve the alchemists' problem, how to get the needed thing, which they did not have, to make silver or gold. Simply, they did not have the inspiring breath or seed to make gold.

Needless to say, this led to much consideration as to what to do. Fortunately not too many knew exactly what the alchemists were doing because they for the most part conducted their activities in secrecy. The initiates were sworn in by an oath of secrecy, "I promise to conceal the secrets of the alchemical science," which was administered by the master or adept alchemist after he asked them if they would, "Accept the gift of God under the consecrated sign?" The secrecy surrounded alchemy is indicated at by Agrippa von Nesttesheim, a merciless scoffer and blasphemer in the Renaissance, "I could say much more about this art (which I do not find so disagreeable) were it not for the oath of silence usually taken by the initiates into the mysteries."

During the Middle Ages the alchemists developed a society of their own, which some might call a subculture or an underground culture. This subculture actually was a reestablishment of a pre-Christian culture established by the Arabs during the miraculous Islamic conquests during the 7th and 8th centuries CE. Even with their new ways of rational experimentation the Arabs retained the Hermetic tradition and included it in their two-fold approach of making gold as well as reveling a way of giving enlightenment to the soul. Therefore, the alchemical tradition which the Europeans finally adopted did not come straight from Egypt and Greece but had absorbed Arabic ideas too to present a Hellenistic culture which the Christian Church thought it had destroyed. Also there was Chinese alchemy.

In this subculture the alchemists occupied a strange position, both religiously and scientifically. They were mystics without being orthodox Catholics, scientists without following the learning of their time, artisans unwilling to teach others what they knew. They were sectarians, the problem-children of medieval society, and their contemporaries were ever hesitant about deciding whether to regard then as pure sages or sacrilegious impostors.

Once dropping out of the regular society they found it easy to drop into this subculture, an underground world that would become the custom that would be alien to the Western Christian society, which had been created just for them. They found themselves comfortably among dedicated men of a quasi-science who evolved a culture unto themselves with their own rules:

Eventually it appeared those becoming alchemists were entering a holy vocation as depicted by the following scene: The dove pictured above this ceremony and suffusing it with heavenly light symbolizes the "royal art" which the *Rosarium* terms "a gift of the Holy Ghost." Two angels hovering above sing, "Because you have loved justice and hated evil God thy Lord has anointed you with the oil of joy. Put

your trust in God, act like a man, and He shall comfort your heart."

In his *Ordinal of Alchemy* (1477) the English alchemist Thomas Norton puts forth some observations summarized as follows:

> Not everyone can receive the art, unless there be some person sent by God to instruct him in it. For the matter is so glorious and wonderful that it cannot be fully delivered to any one but by word of mouth. Moreover, if any man would receive it, he must take a sacred oath, that since we his teachers refuse high rank and fame, that he also will not be too eager for these frivolous distinctions, and that he will not be so presumptuous as to make the secret known even to his own son; for propinquity of blood, or affinity, should be held of no account in this our majesty. Nearness of blood, as such, does not exile anyone to be let into the secret, but only virtue, whether in those near to us or in strangers. Therefore, you should carefully test and examine the life, character, and mental aptitude of any person who would be initiated into the art, and then you should bind him, by a sacred oath, not to let our majesty to be commonly or vulgarly known. Only when he begins to grow old and feeble, he may reveal it to one person, but not to more-and that one man must be virtuous and generally approved of by his fellows. For the majesty must always remain a secret science; and the reason that compels us to be so careful is obvious. If any wicked man should learn to practice this art, the event would be impearled with great danger to Christendom.

The practitioner of alchemy, in the Middle Ages, as also noted with magic, was often in the clergy. There were several reasons for this. First the alchemist had to be educated in order to read, translated, and copy the formula. Then the priests were the ones who could read and write sufficiently. The best occupational choices were the priesthood, medicine, or alchemy. Magic was frequently practiced too because then there was little distinction between science and magic. Secondly, one needed an income in order to conduct his experiments; the priesthood provided this, and it also provided the time as the alchemist usually did not have too many other duties. And, it was advisable to keep your alchemical activities a secret because one did not want those not understanding the art to walk in on the experiments or go about describing the experimenter as being weird. This was especially true if the alchemist had a superior who looked unkindly on the art. However, some clerics found alchemy to be profitable when they wanted to finance a crusade, or build a new church or hospital. All activities were not done out of pure charity, though, because they brought renown to their doers and the hope of prayers of the recipients who had benefited, which hopefully should gain them quicker release from purgatory.

Secrecy pervaded most of the alchemical process especially the rare treatises that are found. Trying to decipher any meaning from them seems a chaotic endeavor. The information within the works seems deliberately concealed by obscurity that it was only meaningful to the author and not to anyone not initiated into the specific secret which enabled them to understand the work. As previously mentioned a man's character was highly regarded in alchemy, this was especially true when entrusting one's work to another, particularly initiates. This served as a major reason for the obscurity within treatises. Such secrecy was ensured by the alchemist's secret oath. The alchemist swore not to tell any man his secrets unless he knew that man to be worthy, and sought the knowledge, not to gain riches, for the knowledge itself.

However, not all who engaged in the art were sincere. It is noted that it was easier to detect a fraudulent alchemist; there was nothing secretive about him. His swindles were so simple and attractive that it was obvious why there were papal bulls and civil laws enacted against the so-called Multipliers of Metals. The numerous swindlers saw no need to practice the tedious process of the alchemists; they just claimed to possess the stone, or a sample and/or a quick recipe for making it. The surest signs of a fraudulent alchemist were his itinerant lifestyle and his eagerness to talk. Their business was so lucrative that their descendants are the unscrupulous gold traders of today.

These dishonest dealings posed such a serious problem that it brought about the Statute in 1403-4 which was deliberately aimed at getting rid of the frauds while the genuine experimenter still had no trouble

securing his license. This was especially true in time of war, such as the Wars of the Roses, as the Kings of England were extremely short of money and encouraged the makers of gold who were themselves only too glad to pay the license fees.

It was at the end of the 16th century and the beginning of the 17th when the origin of modern chemistry started. This new science was more interested in studying the nature of things rather than their relationships to other things, particularly God. This was a major distinction between chemistry and alchemy. The other distinction as previously mentioned is that alchemy seeks knowledge by looking backwards to the past by thinking that the ancient teachers and adepts had knowledge that would perfect alchemical skills, while chemistry looked forward discovering new knowledge about the nature of things which led to further discoveries. As is known, chemistry with its discovery of the periodical table of atomic weight overcame the failure of alchemy in the physical sense, combining minerals to make new ones. However, these distinctions did not spell the demise of alchemy; they just separated men of different interests, future scientists from the alchemists.

There was not only a division of scientists from alchemists, there was a division of worldviews as well. The new scientists were speaking of laws which they claimed governed nature, and such claims were unsettling to men who still held the view of a cosmos with the vast empyrean heaven enclosing the concentric spheres of the planets which, in their turn, governed all of the changes in the world. This was the divine worldview--a world created by God, governed by him, and ended by him--which the new science was discarding, that caused those clinging to this view, whether scientist or philosopher, to find it renunciation repugnant and nearly impossible to defend. Their assumptions were right because many difficulties resulted in attempting to resolve both views. What resulted out of this entire conflict is what is still presently termed the mind/matter, or body, conflict; in short, the mind is separated from the physical body, each dealt with separately.

However, the former worldview was essential to alchemy. Thus, in the late 17th century alchemical books gradually began omitting details of practical arts, experiments, and started describing a spiritual universe. This also coincided with the 17th century inquirer's conception of the aim of "natural philosophy" which was to give the complete account of the natural world including God's and man's participation in it. As can be seen, in alchemy the operations of nature were still considered important, and eventually joining this view was Hermetic philosophy. Hermetic philosophy was compatible because of its central idea of a causal chain of descent from God to matter. This philosophy essentially parallels Biblical scripture: The eternal idea of all things originated with God. The goodness and beauty of the idea compelled him to make a material copy. God, the Father, is the supernatural foundation or basis of his creatures; God, the Son, is the pattern in whose image they are made; God, the Holy Ghost, is the spirit that framed the creation in due proportion to the pattern. God, the Father, is compared to the Sun; God, the Son, to light; and God, the Holy Ghost, to a fiery love, a Divine heat.

The conjunction of natural philosophy with Hermetic philosophy perhaps was impressive but it provided no resolution to the problem inherited in the physical aspect of alchemy; even when the base metals were transformed practically back into prime mater (ash) again there was still no known way to make them possess the new traits required for them to become silver or gold. Alchemy just did not have this ability even though there where claims that some alchemists accomplished it. Since most alchemists were unwilling to let go of their worldview, the art became more spiritual in describing God and his relationship to his creatures.

But until the 18th century some renowned men considered alchemy a serious study. Among them was Isaac Newton who it is said devoted more time to studying and writing about alchemy than either optics or physics the work for which he is famous. Most of the information concerning Newton's studies in occultism is speculative since much of his work was destroyed by fire in his laboratory and that knowledge is gone forever. However, while doing alchemical work he appeared to have suffered a nervous breakdown which may have resulted from the psychological transformation that the alchemical process was supposed to produce or from a metallic poison caused by mercury, lead or some other substance. Like many men of the day who shared Newton's interests, Newton had knowledge of both

astronomy and astrology, at that time interrelated, and some describe him a good astronomer as well as a good alchemist. Although Newton was good at physical sciences, his mathematical studies led to his discoveries in physics and astronomy, it would be in correct to describe his worldview as purely mechanist; like other alchemists he still was interested in relationships between the world, God, and man.

As previously mentioned in earlier centuries it is known or speculated that clerics were involved in alchemy among the renowned was Albetus Magnus, besides being an astute scholar of Aristotelian philosophy which he applied to Christian theology that earned him the honorary title of Doctor of the Church (Doctor Universalis) and canonization of Saint Albert the Great by the Roman Catholic Church, this 13th century Dominican friar, and Bishop of Ratisbourg, was also a teacher of alchemy and chemistry. He is credited for isolating arsenic in 1250, and allegedly discovered the Philosopher's Stone. It is said he told his alchemy student to practice the art in secrecy. Some claimed he was a magician, whether true or not is uncertain, just may be jealousy of others. He famous student was Thomas Aquinas.

Saint Thomas Aquinas, another Dominican friar, appears to have followed in his teacher's, Albertus Magnus, footsteps by being one of thirty-three people to be given the honorary title of Doctor of the Church. He is the most famous classical proponent of natural philosophy and created the Thomistic school of philosophy which long served as the primary philosophical approach of the Catholic Church. He attributed much to the development of the scientific theory; and, even went so far as to claim that universals could be discovered only through logical reasoning, and, since reason could not run in opposition to God, reason must be compatible to theology. This was in opposition to the generally held Platonic belief that universals were only revealed through divine illumination. Both Magnus and Aquinas might be called theoretical alchemists since they were among the first to examine the alchemical theory, but did little experimentation.

Roger Bacon, a 13th century Franciscan friar, was an Oxford philosopher who placed a great importance on empiricism while advocating the scientific method. According to some his later studies showed a reliance on occultism, particularly the alchemical tradition. He was acquainted with the Arab world and their alchemical studies. Being one of the greatest intellects of his time, he rejected blind adherence to past authority, both in theological and scientific studies. In his *Opus Majus* he described alchemy as well as mathematics, optics, the manufacturing of gunpowder, the positions and sizes of celestial bodies, the anticipation of later inventions such as microscopes, telescopes, spectacles, flying machines, and steam boats. He studied astrology and believed that the celestial bodies influenced fate and the mind of humans. It is known that Bacon later was not too well liked within the Franciscan Order, for one reason at the time no member was to publish any of their work without special permission which he did not request; also, it is rumored that he was imprisoned for a time Order in 1278, whether for his advanced scientific views or for his attacks of the clergy is uncertain. Then he was in Acona, and had disseminated Islamic alchemy, protested against the ignorance and immorality of the clergy, and roused accusations of Witchcraft. Bacon is called the first true alchemist of the medieval period, and his work did for alchemy what Robert Boyle's did for chemistry and Galileo's did for astronomy and physics.

One of the first alchemists to abandon Hermetism and make the alchemical process serve practical purposes was Theophrastus Philippus Aureolus Bombastus von Hohenheim, better known as Paracelsus (1493-1541). He was one of the most rebellious alchemists who after searching for a medical education throughout northern Europe, and being disappointed, gave himself the Latin name of Paracelsus, meaning "greater than Celsus," and proclaimed that his medicine would be greater than that of the Greeks and Romans.

In fact, he did by eventually being recognized as the inventor of medical chemistry. All of this came from humble beginnings but stern determination. Paracelsus' first alchemy training came from his father who was a village doctor without any credential. He treated the ill of Einsiedeln, and the pilgrims who became ill as the journeyed to and from the shrine of the Black Lady. He had studied metallurgy,

alchemy, and medicine so, as Paracelsus fondly wrote of his father, he taught his son about the healing herbs of the region, as well as alchemy, mining, smelting, and refining ores.

Paracelsus received the rest of his education mostly in German schools and universities. Afterwards he, like his father, practiced medicine without a credential. He preformed some, what seem to people, miraculous cures and worked up fame as a healer, but about as frequently he irritated local authorities by his arrogance and had to move on. When finally getting a teaching position at Basel University he used it to blast the Galenic theory of medicine which had predominated Europe for centuries. This definitely did not set well with the faculty who banned him from lecturing. He won a temporary sanction to lecture in the town of Basel where he espoused a radical theory of medicine which included pathology, prescribing and preparing medicines, examining the pulse and urine, and treating illnesses and injuries. He did not give these lectures in Latin, as customary for academics of the time, but in German so everyone understood. Those who did not know what their physicians were doing did after hearing Paracelsus. This was not agreeable to the town fathers either and after Paracelsus became involved with a churchman over a fee disagreement they wanted to imprison him. He left in the middle of night as he had often done before.

Despite of his personal character Paracelsus was a true alchemist. He believed in natural healing. He experienced this when with the Hapsburg armies where he got surgical experience. He heard from soldier's lore a wound heals better if the dressing is put on the sword or spear that caused it; trying it, he found it to be true. The treatment was better than traditional ointments. "If you prevent infection," he concluded, "Nature will heal the wound by herself."

At most Paracelsus was a paradox; his lifestyle was that of a fraudulent alchemist while he had the spirit of a real one. Paracelsus uniquely took the medieval world toward the modern world without feeling any clear-cut division. He retained his old beliefs in a God, angles, devils, and all kinds of natural spirits which he proclaimed could and should be used for healing. Many thought him to be a magician since some of his cures seemed miraculous. Paracelsus would never had considered himself a magician; he just knew the healing power of Nature as he firmly believed that God had placed it there, and this belief was reaffirmed whenever he saw the natural healing power work. He knew the relationship between God, Nature, and man, the mark of a true alchemist.

This is why he never abandoned the alchemical process-solution, evaporation, precipitation, and distillation-because he knew that it worked. "Stop making gold," he taught, "instead find medicines."

He was the first to name the element zinc in 1526. His medicinal ingredients came from plant extracts, and mineral compounds he used were antinomy, arsenic, and mercury. He recognized the benefits of mineral waters for health, especially the Pfaffer water; particularly the tincture of gallnut as a reagent for the iron properties of mineral water. His essences and tinctures extracted from natural plants replaced the complicated compound medicines of the day. Many of his opponents complained his remedies were poisonous, to which he quipped, "All things are poisons, for there is nothing without poisonous qualities...it is only the dose which makes a thing poison."

Paracelsus brought alchemy into a new age. Instead of experiencing demise it was given new tasks to enable men to live better with their environment. Paracelsus saw many similarities between the microcosm and the macrocosm and knew man must be in harmony with them to have good physical and spiritual health.

It was the famed psychiatrist Carl G. Jung who finally expressed his view the total goal of the alchemist, both then and now. After years of alchemical research and study Jung wrote the goal in his *Mysterium Coniunctionis*. If the goal was ever attained it was achieved by three stages. The first stage, the studying of the problem or the whole situation, for the alchemist, is purely intellectual. Even very early in alchemy this was known as separating the subtle essence, *pneumia* or soul, from the matter. But almost throughout the history of alchemy this separation was recognized as not being enough. The liberated spirit then had to be reunited with the corporal body or matter. Alchemy represented this reunion by

various symbols, perhaps the best known is the "chemical marriage," But, the alchemists were not satisfied just to let this chemical marriage represent the marriage of man and woman, no, to them, it was more significant than that. They tried through repeated distillation to produce an actual sky-blue fluid of the subtlest consistency which they called *caelum*, their heaven.

Producing this fluid was the second stage, but not the total goal of the alchemist. In other words, the caelum was not the Philosopher's Stone. The Philosopher's Stone has not been significantly mentioned thus far and the following description of the third stage or degree which the alchemist strives for will indicate why. The third stage of the conjunction is universal. This is not just the desire to change things, matter or the Self, back into prima materia, no, it is the attempting to return to the "first" prima materia, the chaotic state before creation. This is the premises of the alchemist motto: "What nature leaves imperfect, the alchemist perfects." Further he can say, "Man, I, in an invisible act of creation put the stamp of perfection on the world by giving it objective existence." This honor is usually given to the Creator, thus letting man view the world as the life of a machine, counted down to the last detail, which along with the psyche, runs on senselessly, obeying foreknown and predetermined rules.

Then Jung thought of his old Pueblo Indian friend and of envying his certainty that he had to help his father the sun to cross the sky each day. Jung realized Western man long-for myth which he had abandoned: "Human consciousness created objective existence and meaning, and man found his indispensable place in the great process of being."

Jung's purpose for studying alchemy was psychological, for to him alchemy was analogous to analytical psychology because both use similar processes. Whereas in alchemy base metals are melted to make rarer ones, in analytical psychology the conscious is confronted unconscious. Usually in analysis when the conscious and unconscious are brought together in confrontation there are personality characteristics or traits that are not harmonious with each other; the purpose of analysis is to harmonize these traits in order to gain a functioning personality. Just as in the alchemist's furnace the impurities are burned away, so to in psychoanalysis the disharmonious personality traits are worked through.

The functional personality provides inner security, which should be the finished product-the Stone-but is it? As Jung said, The presence of a sense of inner security by no means proves the product will be stable to withstand the disturbing or hostile influences of an environment. The adept had to experience again and again how unfavorable circumstances or a technical blunder or-as it seemed to him-some devilish accident hindered the completion of his work; if so, he had to start his work all over again. So too, the psychoanalyst experiences the same conditions: he is never sure his client can withstand the rigors of life until tested. If not, then the therapy has to be done again until the wanted results are achieved. "In nature the resolution of opposites is always an energetic process: she acts symbolically in the truest sense of the word, doing something that expresses both sides, just as a waterfall visibly mediates between above and below"

In short, neither process is passive. When in analysis "Spare no effort to devote yourself to the task, follow the sequent transformations of the spontaneous fantasy attentively and carefully. Above all, don't let anything from outside, that does not belong, get into it; for the fantasy-image has 'everything that it needs.' In this way one is certain of not interfering by conscious caprice and of giving the unconscious a free hand. In short, the alchemical operation seems to us the equivalent of the psychological process of active imagination."

For some the gap between the activities of Paracelsus, and his predecessors, and those of Carl Jung may seem too wide to bridge, but this is not true. Both Paracelsus and Jung demonstrated the alchemical process, or method, can still be utilized to benefit the modern world. It is true chemistry replaced the inadequacy of alchemy; chemistry transmutes materials into new ones, which has become its purpose. But this should not mean the demise of alchemy in the modern world. While scientific discoveries come from chemistry and the other sciences which provide humans with new conveniences in life, these sciences still have not assured humans of their proper place in the world, particularly the natural world. If anyone doubts that just the world's environmental problems are a good testimony.

Currently one of man's biggest obstacles is learning, or relearning, his proper place within life's natural cycle. According to Christian belief man lives in the world but is not of it. Many feel, especially environmentalists, this is a major reason that man has ravaged the land, taken more than he have given back. One example given is of the ancients, when cutting a tree for firewood or to build a lodging they world pray over the tree stump asking the spirit of the land for forgiveness; now lumber companies haul timber out of forests by the truckload. It is in instances such as this that alchemy can help man again to find his place in nature and help save her.

For more on Alchemy, see: The Alchemy Virtual Library, Alchemy Symbol.

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