The journey begins

INTRODUCTION.

"Each form of knowledge, if it be acquired beyond a general and superficial level, involves the development of creative imagination, judgement, thinking, communicative skills etc. in ways that are peculiar to itself as a way of understanding experience."

Darby, Lenten, Miller, Sibbs. [ Praxis ]

I would suggest that the term 'alchemy' is merely an artifice for practical reasons. It is a means to aid recognition of the meaning of this phenomenon and although the concept of alchemy is radically misunderstood, I would still suggest that the practical, spiritual and psychic alchemists and their endeavours had a substantial influence on the recognition and understanding of what 'true alchemy' was and is, about. Obviously the word 'true' needs qualifying, as do so many words, and in this context it is used purely in terms relating to alchemical notions and my interpretation of them.

If we are looking for comprehension, understanding and insight into true alchemy, we can begin by looking East. Taoist philosophy and belief comes close to a recognition of intrinsic alchemical principles when it states that neither speech nor silence can convey it and that we are looking at a meaningful principle of universal significance. It is a recognition of the conscious and the unconscious minds and is, for the Western mind, a reunion of the two. This is not to say that we dismiss the idea of trying to express our understanding, as this, the struggle to understand is part of the very process of alchemy; in fact I would say that true alchemy is, and the consequence of, the struggle inherent in reconciling the conscious and the unconscious minds through creative endeavour; the
individuals must devote themselves to the struggle and maintain an integrity in order to reach the centre, the absolute: and it is only with this integrity that a higher consciousness is reached. In other words, bringing everything relevant and essential together in a universal significant response. In alchemical terms this would represent the Magnum Opus and of course, the 'centre' and the 'absolute' exist only in so far as we acknowledge their existence. Dorn, [cited in Jung p.149] says "the centre occupies no space, cannot be grasped, seen or measured" and, as [Jung p.238] states, "The really important psychic facts cannot be seen in a test tube or under a microscope" and "must be left for people who have an inner sense for them." and to qualify something that is essentially related to sensorial perception and indeterminable, is difficult. These are terms that only hint at what the reality really is. The closer you come to an understanding, the more complicated it becomes and consequently remains elusive. True alchemy becomes a vehicle for many things and is seen as a massive universal metaphor for important aspects of existence. Many people see it as a metamorphosis of material, real and unreal' and in particular the metamorphosis of the self.

We are dealing with areas of the human mind and experiences that are difficult to codify. Esoteric and intuitive explorations of matter are difficult, if not impossible, to explain by words alone, and in some cases, can only be understood through feelings, instincts and emotional responses. This, of course, is directly connected with and has correlations to aspects of creative thought and practice, where, through the constant application of the inquiring mind, the investigation and exploration of new ways of expression, of new parameters, is constantly sought and experienced. I intend to explore explanations of alchemy and see my
research as a means to understanding the implications and significance that alchemy holds for me. My research into alchemy will take me into historical and contemporary beliefs and attitudes and I will try to relate important cultural concerns to alchemical notions, as I understand them to be.
The struggle Defined

ALCHEMY

According to [Taylor 1951. p.1.] "Alchemy, as a whole, has long been held to be an incomprehensible perversion of the human spirit." He saw it as a deliberate deception and fraud practiced by people who supported the theory of transforming base metals into gold. "An activity related to sorcerers". I would maintain that true alchemy has very little, if nothing whatsoever, to do with magic, incantations or spells and has never, in the truest sense of the notion, been associated with the process of turning base metals into gold, although, as we will discover, alchemy has been linked closely to this practice as well as to magic and the arcane. We also discover, in the pursuit of alchemy's true meaning and significance, manifestations associated, not with primitive cultures, but with complex cultural systems and a process linked to social needs, such as art, medicine, and aspects of scientific thought and endeavour. For the true alchemists, the idea of connections with the magical mind are tenuous and, in most cases, are proven to be misleading. [Wilson 1976. p.13-15] suggests that alchemy embodies a symbolic relevance to matter and that it is not some fanciful aberration of the occult mind, but that it has a universal reference, intimately tied to significant cultural necessities.

I would suggest, that the true alchemist was, and is still, involved in a quest, a search for a truth and understanding of themselves, their personal environment and its significance as a universal salve, as well as matter and all that that encompasses. They are creative thinkers and seekers of solutions to mysteries and like the artist, prepared to question existing notions of
truth, perception and reality. The true alchemist never pursued the turning of one metal into another but understood this to signify a deeper, more symbolic meaning and understood the concept of transmutation in a symbolic, spiritual and creative way. True alchemists see the alchemical gold, the philosopher's stone, the alchemical tree and androgynous as having profound symbolic meanings connected with nature and the nature of the human mind.

The hermaphrodite is a symbol of unity, a composition of the male and female principles united into one. Seen here, the Rebis – a hermaphroditic compound of the sun and moon or gold and silver, are seen analogous to a male and female in one body – androgyny. Jung sees the hermaphroditic principles as the anima and the animus and defines it as the deposit of all the experiences of man with woman. Almost all illustrations of androgyny depict a figure with two heads.

Fig. 2

Fig. 3

True alchemy has existed since humankind has
inhabited the face of the earth. Practical alchemy however, has only prevailed for, at the most, a few thousand years and has been susceptible to a range of interpretations across that time. I believe that alchemy, whatever guise it appears in, has touched, and still touches on our lives in many ways, and is still a significant metaphor for important aspects of life.

In order to establish these connections we must firstly inquire into the background of the practice and try to differentiate between the many and varied definitions applied to it from ancient periods to today and, hopefully, come close to identifying its 'real' significance.

Notions contained in definitions of Alchemy are considerable. [Schwarz, 1986. p.57] believes that of all the definitions that exist and are remembered, relating to alchemy, is one which is the most common and the least important. He maintains that our ignorance is epitomised by definitions from leading dictionaries, including the unabridged edition of the Random House Dictionary of the English Language where alchemy is defined as 'An art practiced in the Middle Ages and the Renaissance concerned principally with discovering methods for transmuting baser metals into gold and with finding a universal solvent and an elixir of life'. Other dictionaries are equally as unrewarding and limited in their explanation.

Fabre, [cited in De Rola 1973. p.8.] demonstrates his belief in true alchemy by disregarding the possibility of alchemy being simply a science of metallic transmutations, and argues that it is "A true and solid science that teaches how to know the centre of all things, which in the divine language is called the Spirit of life".

It is interesting to note the use of the word 'science' in relation to a spiritual alchemy, and the
acknowledgement that we can be taught how to reach the centre of things is, I would suggest, too hasty a conclusion and a misguided assumption that to reach the centre is merely a process of education. This of course, should not detract from the quest, the search or the journey for it; as this is the alchemy. What also needs to be established is that an understanding or even an awareness of the centre of things must start from the individuals desire to question and search for themselves.

[Grossinger 1979. p. 240] suggests that there are many notions of alchemy and sees it as the transmission of symbols across time and space of an "intrinsic natural event." and although accepting alchemy as a riddle, and despite the ambiguities, he manages to formulate a definition through a series of summaries that, on first reading, seem adequate. The whole series is included as an indication of the scope and depth of alchemys' appearance to him.

1. A theory of nature as made up of primary elements.
2. A belief in the gradual evolution and transformation of substance.
3. A system for inducing transmutation.
4. The imitation of nature by a gentle technology.
5. The faith that ones inner being is changed by participation in external chemical experiments.
6. A general system of synchronistic correspondences between planets, herbs, minerals, species of animals, signs and symbols, parts of the body etc. known as the doctrine of signatures.
7. Gold as the completed and perfected form of the metals in specific, and substance in general. [alchemy is the attempt to transmute
other substances into gold however that attempt is understood and carried out].
8. The existence of a paradoxical form of matter, sometimes called The Philosophers Stone [the lapis] which can be used in making gold or in brewing elixirs and medicines that have universal curative properties.
10. The search for magical texts that come from a time when the human race was closer to the source of things, or are handed down from higher intelligences, extraterrestrials, aliens, guardians or their immediate during some golden age. [in Greece, Egypt, Atlantis or before] These texts deal with the creation or synthesis of matter and are a blueprint for physical experimentation in a cosmic context [as well as for personal development]. They have been reinterpreted in terms of the earths different epochs and nationalities.
11. In the occident, alchemy is early inductive experimental science and is closely allied with metallurgy, pharmacy, industrial chemistry and coinage.
12. In the Orient, alchemy is a system of meditation in which one's body is understood as elementally and harmonically equivalent to the field of creation.
[Between East and West, the body may be thought of as a microcosm of nature with its own deposits of seeds, elixirs, and mineral substances].
13. Alchemy is joined to astrology in a set of
meanings that arise from the correspondences of planets, metals, and parts of the body and the overall belief in a cosmic timing that permeates nature.

Of all the above explanations by Grossinger, not one truly captures the absolute significance of true alchemical thought or practice. Rather, alchemy, by its very nature is, I would suggest, a search for the most important principles that shape and control existence; a search that thinkers and philosophers, particularly from the Far East recognised, through Taoism, very early in recorded history.

The nature of true alchemy is not determined by time, place and interpretation, but rather, is a set of experiences and manifestations of actions not previously known to the individual that transcends historical, or cultural events and more specifically eminates from within, and as such, linked to the unconscious.

[Jungs' 1994 p.462] interpretation of alchemy as "a metaphor for the psychological processes concerned with the liberation of man from life's basic contradictions" is important in explaining aspects of true alchemy and their ramifications. Jung terms this psychological process "individuation" and realises it as the "centralising processes in the unconscious that go to form the personality." A kind of universal formative principal. He partially substantiates this belief by relating his observations of his patients' dreams containing alchemical archetypal motifs without them having the slightest knowledge of alchemy or its literature. He also acknowledges the significance of symbols in reaching and expressing the unconscious mind and in so doing establishes direct links to true alchemy and the search through alchemical notions for the self.

I believe that recognition of a universal alchemical reference, can be established within a historical and
Ouroboros - The Dragon that feeds on its own tail is the symbol of the eternal, cyclical nature of the universe and a recognition of the inner unity of the conscious mind with the unconscious. In alchemical literature the ouroboric serpent represents both the opus, and the end result, the Philosopher's Stone. Its unending circular movement is connected with immortality and is the archetypal model for the conciliation of opposites: life and death, male and female, etc.
contemporary context and in order to do this we must begin to understand where notions, called alchemical, came from and how these notions were used. We can begin with the first known inquiry into the external nature of matter and materials and although the material was fashioned to accommodate practical necessities it was a start to the ensuing enquiry.

[Crossinger 1979, pp.241-2] maintains that the only remains that exist and have survived the ravages of time from the very first societies, are stone tools, and regardless of whether we assign particular symbolic connotations to such implements and the use of stone, from these early groups of people, we can observe existing native societies and make a reasonable deduction from their beliefs that stone, rock, crystal, and gems are powerful images and sigils.

This in fact may be true, but we must recognise that we are talking about primitive cultures and groups of people who were steeped in superstition and magical rituals and would react to certain properties found in matter in a way that suited their beliefs and understanding and, in some cases, would also fashion their beliefs.

According to Grossinger we know, in recorded systems, that stones are related to higher consciousness and hold a special significance. For example, Australian Aborigines believe that Quartz has special powers; seeing it as a window into the astral zone. Images of ritual and magical invocations are visualised and as Grossinger says, we begin to see the early elements of practical alchemy start to present themselves: the forge, the fire, the stone, and the sword. Images containing a magical, archaic ring.

I would maintain, and indeed emphasise, that although these images of a physical, practical alchemy are important in terms of understanding the development
of ideas and thought, they are subservient and incidental to the alchemy of the 'soul' and the 'spirit' and the struggle to understand the self that true alchemists recognised. Although, we could add, that without the recognition of these aspects of matter by early groups and the projections that were placed on them, practical alchemy may never have developed and, in turn, stemmed the understanding of true alchemy.

[Shumaker 1960, p.166] maintains alchemy began as a goldsmith's art and links it directly to ancient Egyptian knowledge of glass manufacture, glaze production and extensive use of gold and precious stones. He maintained that Egypt was the birthplace of practical alchemy and claimed it became more ambitious and diverse as time went on and developed into two main directions. Indiscriminate and experimental being one, with philosophical or meditative being the other.

The alchemy dealing with the mind, as opposed to the physical, is what the true alchemists focused on. They simply saw practical alchemical procedures and symbols as a means to describe the psychic processes of, what Jung called, individuation, and saw parallels to the growth and understanding of the conscious mind and a realisation of the importance of the unconscious mind in understanding the self and the centre.

[Stillman 1968, p.98] questions the origins of practical alchemical practices stemming from Egypt or for that matter, Asia Minor, Persia or India stating that there is no significant documentary evidence relating to alchemy that is authenticated historical text that is free from later interpolations. He does concede however, that it is generally agreed amongst scholars that early civilisations received their chemical arts from Egypt and although he is sceptical of the origins of Egyptian manifestations of alchemical practices, he does say that in manuscripts in the Leyden collection
Fig. 5

Egyptian drawing of the 21st Dynasty. (circa 1000 B.C.) from the papyrus of Nestanebanshru showing Tehuti [Thoth] standing before Ra Horwachis wearing symbols of creation on his head. Throughout the history of alchemy, Thoth was regarded as the Egyptian equivalent of the Greek deity Hermes.
namely Papyrus V, there is to be found "magic formulae, recipes for philters, incantations, divinations and dreams". An indication of practical alchemys early link to magic, mystery and the occult.

[Read, 1936, pp.56] also questions the notion of alchemy originating in Egypt. He maintains a Chinese origin, with alchemical ideas surfacing as early as the fifth century B.C. and being actively pursued in that country from 300 B.C. onwards.

Two or three centuries before the earliest Greek writing on alchemy there appeared in China accounts of beliefs and processes which relate directly to practical alchemy. Early Chinese practical alchemy showed remarkable parallels to Western alchemy without any known connection or knowledge about developments in the West. Alchemy in China, at this stage, was initially concerned with the prolonging of life and concentrating on the development of a potion that would act as an elixir, a potion to attain immortality.

The first evidence of alchemy in China was found in the writings of Dzou Yen as early as the 4th century B.C. Further evidence can be found later in the laws relating to the counterfeiting of gold by practical alchemical processes; but despite all prohibitions the practice flourished during later centuries and it was probable that some of this information filtered through to practical Arab alchemists during this period. In both Chinese and Western alchemy, we can establish many similarities but, as we discover, they are intrinsically different.

[Taylor 1951, p.71] says that Chinese alchemists eventually allied themselves to Lao Tzu and Taoism where the body was brought into perfect harmony with the Tao and so became deathless. If we look at Taoism and its relationship to alchemy for a little longer, some of the more revealing and important aspects of true alchemy
begin to appear through Taoist manifestations. Tao, or 'the way', is a philosophical notion expressed by the unity of nature and humankind. It develops the ability to get behind or within appearances and is seen as a principle of universal understanding. Tao is the imperceptible and indiscernible, about which nothing can be predicted but that latently contains the forms, entities and forces of all particular phenomena. Needless to say an essential characteristic that governs the Tao, is spontaneity; an aspect essential to the true alchemy and one which is directly related to creativity. Another interesting aspect of Tao, fundamental to its teachings, is the image of the child; an image understood in terms of uncomplicated interpretations and free from outside impressions and significant in terms of immortality. This aspect of Tao also has significance to creative endeavour connecting alchemical relationships to visual art.

By the 6th century A.D. practical Chinese alchemy began to decline, [which we see later occur in the western world]. In Europe, [Lindsay 1970, p.3] maintains the transformation of alchemy from a practical art to a mystical exercise gradually evolving and the belief that the old texts, which were intended to be practical directions, were considered to be allegories concealing spiritual truths.

If ancient Egypt was the birthplace of practical alchemy then ancient Greece was the philosophical base. According to [Lindsay 1970, p.2] The whole of classical thinking was determined by the forms in which the problems of humankind and nature were recognised. Action, movement and change could be recognised and considered only under the catagories devised out of general ideas of the unitary process and the conflict of opposites within that unity. (Unity process in nature) It was believed that all things in nature were composed of
Taoism embraced the idea of two basic principles that underlie the universe: the active force of Yang and the passive force of Yin. Corresponding to male and female characteristics, the Taoists believed that to attain a true harmony of Yang and Yin it would be possible to attain immortality. The Taoist alchemist saw the body as having three important psychic centres. These centres were responsible for different forms of energy. In the lowest part of the body, sexual energy known as 'ching' is stored. In the solar plexus area a higher form of energy, known as 'chi' is stored; The highest form of energy, known as 'shen' contains the spiritual and is located in the head.
some ultimate substance and that there was an
overriding unity as the force driving the universe
onwards. (Conflict of opposites)

The inquiry into how each individual acted on
another and affected them or how objects impacted in
motion was not evident. Instead, they asked what the
nature of substance or identity was and what were the
links between the forms taken by substance, thus
avoiding all problems of mechanical causation and the
many related matters.

[Lindsay 1970. p.11] further states that if we look
at the growth of Ionian thought in the seventh century
B.C. we see explanations for the nature of the universe
being sought. Fundamental principles and substances were
investigated and by concentrating on natural phenomena
it differed from the Pythagorean school which had the
same end in view, but sought the explanation of reality
in number; in an abstract principle, Ionian thinkers had
raised the question of what the universe was composed
of. What single underlying substance? - Water or air or
some indefinable element. In the fifth century B.C.
Leukippos and Demokritos saw all bodies as composed of
ultimate and indivisible elements or atoms moving in an
empty space and in early theories of atomic knowledge,
the 'like affect like' formula was widely accepted. It
was natural for these early thinkers to understand and
believe that within nature all living creatures were able
to recognise creatures of their own kind. This led to
the idea of 'magical' concordance and harmonies of force
or influences entangling the whole universe in one vast
and infinitely complicated network.

When Plato began to work out a scheme of
interlocked structures in matter, which he considered
permitted the change of one element into another, it
would have been easy for practical alchemists to
interpret this theory in their own way. Although, as
The Greek words in the centre mean "ONE IS ALL."

Fig. 8

Drawings from the Leiden Papyrus attributed to Cleopatra. [not the Egyptian Queen]
The serpent is inscribed ONE IS ALL and is in the configuration of Ouroboros symbolising the cyclical nature of the universe.
The double rings read "One is the serpent which has poison according to two compositions" and "One is All and through it is All, and by it is All, and if you have not All, All is nothing."
Also drawn are the symbols of the moon and planets.
[Stillman 1960, p.17] states

Plato and Aristotle in their voluminous writings on many subjects evidence a knowledge of the common properties of metals and other substances, but nowhere do they give any indication of knowledge other than such as was common among all well-informed men.

Fire would appear to be the agent responsible for all transformations, and if we can link the knowledge of metals, to Platos' ideas of interchangeable elements, and to the social and economic desirability of gold, the possibility of practical alchemical transmutation of base metals into gold would obviously have been attempted.

The true alchemist, on the other hand, used the psychological implications of fire and heat as the agent to intensify the consciousness. They saw fire as symbolic and, through the imagination, symbolic fire became a means of cleansing, purifying and extending the mind.

[Taylor 1951, p.18] notes "that although the Classical Greeks had theoretical ideas about the origin of metals and the nature of change, we have no reason to suppose that they practiced either chemistry or alchemy." He surmises that a partial success in the transmutation of metals was considered worth pursuing and that it was transmutation experiments, carried out by practical technicians, that pre-empted any theorising. However, [Lindsay 1978, p.19] affirms that both Plato and Aristotle played a leading role in popularising the idea that matter was composed of elements which could be changed into one another, and once thinkers took an active interest in natural processes and wanted to repeat them, then it would seem logical that these experiments should take place on a regular basis.

Needless to say, [Pearsall p.12] states, practical alchemists contributed much towards the sum of knowledge. In particular they evolved laboratory
equipment, developed and improved furnaces, stills, retorts and crucibles. They invented the fundamentals of laboratory technique, how to distill, sublime, filter and crystallise. They identified and named many acids and substances. It was also logical and natural they should turn to fire, to fusion and distillation in the attempt to change one metal into another.

That metal was gold and I think we have to establish that gold was not seen by the true alchemists in any sense in a mercenary way and that its value was seen symbolically, if at all. [Doberer 1984, p14] establishes gold as being at the heart of alchemy and as such merits our attention. As a metal that does not decay or corrode it has always, particularly with the Chinese, symbolised mortality and perfection. Gold has always been sought and cherished through the ages and, in a materialistic sense, the ownership of gold was a token of a nations power in the world.

Berthelot and Ruelle [cited in Jacobson and McKenzie 1992, p.326] believed that the notion of transmutation of metals developed from the practice of colouring the surface of metals for the purpose of falsifying gold and silver. They further say that according to the alchemical texts, that any metal coloured to resemble gold was so defined and that guilded metal was eventually categorised as gold. For the true alchemist the fascination and importance was with the material as a symbol for perfection and a pursuit of that perfection: and more specifically the perfection of the self.

Unfortunately, the widespread use, acceptance and distribution of artificial gold could have only encouraged credence in the miraculous powers of alchemists to transmute base metals into gold. Once again promulgating the misleading concept of the alchemist as magician.

[Wilson 1976, p.22] suggests that alchemists were
According to the theories of Aristotle the changing of one element into another formed the basis of transmutation. He believed that the four qualities linking the elements together resulted in the elements becoming interchangable.

Fig. 9

Medieval paintings of the four elements abounded sharing a link with both alchemy and astrology.

Fig. 10
content with substances which simulated gold. The gold of the spirit was their prime interest, and any substance which could adequately symbolise this, in its appearance and purity, constituted Alchemical Gold. With this in mind we realise, as Wilson does, that the true alchemist was not interested in physical gold but in its symbolic content.

[Doberer 1904. p.13] makes reference to a tall, black haired tribe that migrated from the fabled city of Atlantis to the deltas of the Euphrates and the Indus, having the knowledge and ability to work in gold, silver, copper, lead, tin, antimony, iron and nickel. Gold, at this time, was considered still to be the divine and royal metal. Gold alone was still sacred to the services of the divine, and ordinary mortals were not allowed to posses it. A recognition here that gold has always held a special significance in the human mind and linked closely to religious and spiritual beliefs.

In ancient Egypt, the winning and working of gold was linked strongly to the priesthood and was centred upon the temple of the god Ptah at Memphis. Handwritten evidence on papyri, known as 'The Stockholm Papyrus', dating from the 3rd. and 4th. centuries A.D., has been discovered in Egypt, outlining recipes for the preparation of gold, silver and dyestuffs. Recipes for glass, pottery glazes and extensive ideas for the use of gold, together with the fact that they traded in semi precious stones, indicates that this theory could be true.

Eventually gold making processes carried out by the Egyptians became secret. This secrecy became an article of faith with initiates and practitioners of, what was later to be termed, 'The Divine Art'.

[Stillman 1960. p.102] maintains that in the period from the first to the third century A.D. developing alchemical notions were linked with mystical cults that
cultivated the fantastic ideas of that kind of chemical philosophy which later came to be called alchemy. It was also evident that metallurgical operations were swamped with ritual. Incense was used to clean the workers, sacrifices were made and the astrologers consulted.

One wonders why so much attention was, and is, paid to a substance dug up from the earth and why so much, both physically and spiritually, revolved around its presence. That is, until one realises the uniqueness of the substance and its capabilities.

Gold is a dense, precious, bright yellow and lustrous metal that is an amazing conductor of heat and electricity. It is very soft and the most malleable and ductile of metals. As an indication of its malleability over three hundred square feet of thin sheets, called gold leaf, can be beaten from a single ounce. Gold is found in its pure form in nature and is rare. It is considered pleasing and workable and does not tarnish or corrode. It was one of the first metals to attract peoples attention. Most ancient civilisations fabricated beautiful and elaborate works from gold and it was always readily accepted in exchange for goods and services. Symbolically, gold is seen in quite a different light and although we see the early Chinese practical alchemists using gold in a potion to create immortality, there were others who assigned different connotations to it. Maier, [cited in Jung, 1930] makes reference to the centre and maintains it contains the "indivisible point," which is simple, indestructible, and eternal. He saw gold as its physical counterpoint and linked this symbolically to eternity.

With the further development of experimental science and practical metallurgy, doubts crept in to the practical alchemists ability to transmutate lead into gold. The invention of printing and the dissemination of global information were also factors in dispelling the
mystique of practical alchemists. Boyle [1661.] helped to show that alchemical theory and wishfulfillment had no basis in fact, and others, like Black, Priestly, Lavoisier and Dalton followed Boyles' premise dispelling alchemical theories and magical beliefs.

The possibility of chemical gold making was not, until the 19th century, conclusively contradicted by scientific evidence. The appearance of modern chemistry gave rise to general scepticism as to the possibility of gold making but at the same time it also created a generally widespread dissatisfaction with the objectives of modern science, which were viewed as too limited.

Since the time of Galileo the main stream of physical science had made progress on limited problems, capable of solution in physical terms. It was seen that both Newton and Lavoisier limited their objectives in a way that amounted to a renunciation of what many had supposed to be the most important question of science; namely, the relation of humankind to the cosmos. Lavoisier, in particular, cleared a path for what he saw as certain knowledge based on sensory experience. His chemistry of balance, of gases, of elements and compounds worked. Lavoisier destroyed confidence in the intuitive. Feeling was replaced by reasoning; hope by necessity. Everything had to be weighed, measured and examined.

Newton [1640 –1727], a physicist and mathematician, whose preoccupations included the science of light, mechanics and infinitesimal calculus and a, so called, rational scientist, had however thought it worthwhile to research alchemical processes. He was introduced to the magical Hermetic tradition which sought to explain natural phenomena in terms of alchemical and magical concepts, and during his time, as a recluse, he devoted his energies to unravelling the secrets and mysteries of alchemy. Newton recognised that alchemical notions
provided a bridge between matter and mind, and saw alchemical symbolism as a way of interpreting unexplained forces operating in the material world as well as the mind.

In true alchemical fashion, Newton writes about the doubts, frustrations and the struggle to understand when he says:

"I do not know what I may appear to the world but to myself I seem to have been a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."

Brewster's Memoirs of Newton, Vol.ii, Ch. 27.

Attitudes towards practical alchemy in the 17th and 18th century were ambivalent. On the one hand alchemy posed a threat to the control of precious metal and was often outlawed and on the other hand obvious advantages were seen, by rulers who could control gold making by controlling the gold makers. In more recent times we notice that Hitler was of the same opinion.

There was however, during the 18th century, a conclusive shift to religious aims which came with a revival of alchemy crystallising around the Rosicrucian Brotherhood in Germany with prominent scientists such as Michael Maier, together with prominent philosophers, being attracted to the 'art' as a reaction to the mechanistic character of the new science.

[Leo, 1972. p.67] reiterates the popular view of alchemists as "a half-crazed, half-baked magician in a triangular, star studded cap, working and muttering to himself in a dark laboratory full of strange vapors and foul smells." but as we have established its true exponents were not concerned with making gold for their own enrichment; many sought the clue to the nature of process, the nature of matter and of life itself.
Transformation through Imagination

ALCHEMY as ART—ART as ALCHEMY.

"Art is a game in which rules have to be constantly reinvented. Art’s real importance is to make us see afresh." Tristan Tzara.

If we look at art as an ultimate activity, particularly visual arts, we can establish connections with all stages of the true alchemical work. Intimate involvement and handling of substances and materials together with high aesthetic experiences are hallmarks of creative endeavour. As in true alchemy, a sustained effort and dedication are needed to follow creative ideas to some sort of conclusion. Anguish, frustration and doubt are constant companions of the creative process and there are always barriers to a satisfactory passage through this process; but with sufficient strength, perseverance and endurance both physically and spiritually, the work continues.

In order to begin to understand the relevance of creative effort as an activity closely related to, if not synonymous with true alchemical notions, we can look at, amongst others, the work of German artist Joseph Beuys. [Kuspit 1980. P.79] begins by saying that, for Beuys, art is both a simultaneously spiritual meaning and political action, thereby making art a kind of ultimate activity from the unity of the two. He sees Beuys’ art at once personal performance and social production; setting the scene for the evolution of selfhood and at the same time a social revolution. I understand this to mean that a direct attempt is made to reconcile the personal and the universal and a suggestion of the two being connected in such a way that provokes the recognition of an ultimate activity.
[Patrick [1988, p.46] maintains that Beuys' insistence on the use of materials such as fat and felt has significance only to the artist as a recognition of a personal survival. [as a pilot he was shot down and injured and then nurtured back to health by being wrapped in layers of fat and felt]. Then again, Patrick states, there is the public side to Beuys, the involvement with nature through the politics of ecology.

FAT expands and soaks into its surroundings.

FELT attracts and absorbs what surrounds it.

Fat and felt are clearly empathetic materials, involved with the existence around them. They demonstrate the interminglings, the "impure, informal" relationships which are the very stuff of existence. Beuys himself remarks that "it is the transformation of substance that is my concern in art, rather than the traditional aesthetic understanding of beautiful appearances."

[Donald Kuspit, 1977]

Beuys' conception of art, according to Kuspit, as spiritual alchemy, is a process of transmutation of material and personal being and his play on terms like "revolutionary evolution" and "evolutionary revolution" indicates his belief in the importance of spiritual development and his concern to free people for such development. This in turn links with his belief in human
self-transcendence through creativity, culminating in a
spiritual change.

Beuys, [cited in Kuspit, p.87] states that "creative
power must be released from its bondage to its own
materials". The potential of material to encapsulate a
spirituality for Beuys was an essential element in his
work. However, metaphors for the search of
spirituality, do not rest with Beuys alone, but can be
traced through a long line of artists including Bosch,
Durer, Blake, Turner, Duchamp, Pollock and others.

[Elkins 1992, p.21] contradicts the extensive use
of alchemical metaphors within visual art and suggests
that alchemy is "a radically incomplete source of
explanation" and that "alchemy does not exist as a ruling
metaphor." He also goes on to say that he is inclined to
believe that "rather our fascination with it [alchemy]
is apt to cloud our judgment" and that it is "a
question of emphasis rather than evidence" that
predominates. There are two aspects in this statement
that can be commented on; yes there is a fascination
with alchemical notions but these notions are nearly
always superficial and relate to magic, transmutation of
metals, astrology, the occult, sorcery and witchcraft,
and as we have decided that true alchemy has nothing to
do with these aspects, then any hypothesis relating to
the idea of fascination with these aspects can only be
permitted if we see alchemy in this way. The other
point relating to evidence is that a process such as
creativity is hard to quantify and in some cases not
qualified until after the act.

I would suggest that the act of creating is only
incidentally concerned with the outward appearance of
ideas; although much can be gained through its analysis.
It is much more to do with the process and struggle to
manifest ideas that correlates to the true alchemical
proposition. The end result, of course, is the sum of
the process and in fact shows a particular conclusion, but what leads to this conclusion, in alchemical terms, is what is important. As the true alchemists strive towards perfection in their actions, so too does the artist. I maintain that the work of the artist revolves around an inner dialogue and very much in line with true alchemical notions. As [De Rola 1973, p.15] says "The further one grows in the knowledge of the principles of this art, the richer one becomes in intuitive comprehension, or 'innerstanding'." We could, in fact, be talking here about both true alchemy and art.

[Welch 1979, pp 138-141] intimates that there is an analogy to be drawn between the alchemical process and the act of painting, and as the true alchemist has an inner dialogue through the concept of 'meditatio' then so does the artist in the act of creating; and this, according to Jung, cited in Welch, "is not a mere moment of cognition but a living relation to the answering voice of the 'other' in us and represents a moment of contact with one's unconscious".

Jung also writes, says Welch, that through the act of imagining, signified by the alchemists' term 'imaginatio', the alchemist related himself not only to the unconscious, but also directly to matter, in which he could hope to induce transformation through the power of imagination.

Jung believed that the alchemical process is mainly of a psychic nature; which in Welch's mind, makes it even more analogous to the efforts and work of the artist.

Read [cited in Wilson, 1976, p.89] supports this view by describing how the artist taps the unconscious in relation to creativity. He says:-

The artist releases these dynamic energies within his own psyche, and his peculiarity, his
virtue, is that he can direct such forces into matter, can realise them as forms of stone or metal, dimensions of space, measured intervals of time. In this sense the artist has become the alchemist, transmuting the materia prima of the unconscious into the 'wondrous stones', the crystal forms of art.

Hoffers' comments, [cited in Petrosko 1983, p.135] bears similarities to Read's theory on creativity in as much as he believes that creativity "springs from an inner tension" and sees a need for the creative individual to "rectify a general psychological disequilibrium". In other words, creativity is seen as an essential element in the stabilisation of society and a belief in the self-worth.

Other personal characteristics of the creative individual, according to Hoffer include "a natural endowment or talent"... "a willingness to overcome obstacles that can block creativity"..."expertise"...the ability to "elaborate"... and to create "a momentous product from a small, or even trivial, idea". Hoffer also mentions that "Self denial, persistence and patience" are also requirements of the creative individual, reminding us of qualities similar to those exhibited by true alchemists.

[Groot 1986, pp.42-43] realises, when he is talking about the artist who knows what he is striving for, that they have to go to the furthest extreme, to the point where they are, at one and the same time, the perpetrator and the victim of their actions. He says,

Once he has escaped from worldly concerns, he must engage in a struggle against himself".... "He is a seer who cannot see, a traveller who knows not where he is bound, a mute prophet in a world of chattering voices.

Once again a recognition of the journey, the involvement
with and against existing knowledge and the belief that the struggle is the important factor.

Hoffer [cited in Petrosko p.143.] hypothesises that,
creativity's origins are in the dark impulses at the root of human nature—striving for mastery and power over the physical and social environment... The primordial slime is always within us and we become uniquely human as we process it.

The need for mastery and power over the physical and social are seen as essential ingredients in both creativity and true alchemy, because without this ambition the process of understanding the unconscious drives would not occur.

Rimbaud [cited in McGrath 1992. p.138] exemplifies the creative energy needed to produce great work. He says:-

I say that one must be a visionary. That one must make oneself a visionary. The poet makes himself a visionary through a long, immense and reasoned derangement of all senses. All forms of love, of suffering, of madness, he seeks himself: he exhausts all poisons in himself to keep their quintessences: all describable torture in which we need all faith, all superhuman force, in which he becomes among all the great sick man, the great criminal, the great accursed—and the supreme scholar for he arrives at the unknown—because he had cultivated his soul, already rich, more than anyone else. He arrives at the unknown, and even if, driven insane, he should end by losing his grasp on his visions, he has seen them! The poet is a Stealer of Fire!

Although Rimbaud’s thrust is the artist as martyr,
we must look at statements such as "the search for oneself" and "arriving at the unknown," and even the "stealer of fire" and recognise the direct links to both creative work, alchemical symbolism and true alchemical endeavour.
Secrets Within Matter and Mind

ALCHEMY versus CHEMISTRY.

The word 'alchemy' was the name given during the 12th century to an aspect of thought that supposedly corresponded to astrology. Both alchemy and astrology attempted to discover and understand the relationship of humankind to the cosmos. Both disciplines were regarded significant because of their universality and were considered fundamental aspects of thought. However, it is also apparent that evidence to support this proposition is not seen in all times and places. A single manuscript of some 80,000 words is the principal source from the ancient Greek period. Neither Indian nor Islamic alchemy has been collected, whilst in China, alchemy appears as part of the Taoist Philosophy.

The word 'alchemy' is a European one derived from the Arabic but the origin of the root word 'chem' is uncertain. Words similar to it have been found in most ancient languages but with possible derivative meanings and implications. What Westerners call 'alchemy', the Greeks, Chinese and Indians call 'The Art' or imply alchemical meaning in terms denoting change or transmutation.

What is seen as a complicated succession of heatings of mixtures, remains and establishes practical alchemy as the possible forerunner of chemistry and as a consequence inquisitive, inquiring scientific processes and thoughts were established. For without these initial experiments, without constant repetition of process, without the constant search, surely chemistry, along with many other scientific avenues may never have been explored.

Experiments with noxious substances, such as sulphur and mercury, have been performed for at least the last two thousand years by practical alchemists.
trying to see beneath appearances of matter and mind. They were, and still are, seekers of secrets and, in any language, alchemy is a story of paradigms.

Some would say that alchemy failed to establish appropriate experimental procedures for many centuries, relating to matter and mind and that a systematic experimental approach to science took too long to get going effectively. One would have to ask why and whether it was appropriate to assume that this was alchemy's role. Others would say that true alchemical procedures were far removed from any scientific rationalities and so unconcerned with the development of scientific configurations. From the earliest knowledge of practical alchemical practices, through authenticated texts, we can say, with some assurance, that it was initially concerned with crafts associated with metal that seemingly, arbitrarily became consequently interlaced with philosophy, spirituality and, more recently with psychology.

Up to the 16th century practical alchemy had been the only laboratory science of its time, and the early chemists looked to alchemy for their instruction in practical laboratory techniques; but with the first practical book on chemistry appearing towards the end of the 16th century, alchemical processes were made to look foolish. It is, however, untrue to say that chemistry replaced practical alchemy overnight. It was a gradual process lasting some three centuries and involved a gradual shift from alchemical philosophy to followers of a more scientific persuasion.

The true alchemists, other than the mere multiplier of metals, sought a complete scheme of things in which the physical, the metaphysical, humans, animals and the lifeless world all took their place, in which the origin of the world, its purpose and end were to be clearly visible. Such an object has clearly been difficult for
Greek alchemical apparatus for distillation and digestion

Fig. 12

Apparatus that would have been used in a laboratory in the late 17th century. Although many of the vessels illustrated have since become obsolete, the following are still used in chemistry laboratories at the present time: two forms of the natrass, now called a flask, 4 and 6; the glass funnel, 14; and the retort, 16.

Fig. 13
science to embrace for it not only includes the object of science, but involves aspects of philosophy and religion: areas considered to be outside the realms of a quantifiable study.

True alchemy not only sought to deal with matters that chemistry does not approach but even omitted to inquire into the matters that chemistry has made its own. The true alchemists did not seek to establish or even contribute to a descriptive catalogue of chemical substances, nor did they chronicle and classify their changes. These things were left to the practical alchemists. The technicians and metalurgists.

Modern science, and with it, chemistry, makes observations, reports them clearly and without secrecy, extracts from them general laws, explains these in terms of theories and deduces other laws from these. Moreover it verifies every step in its inductions and deductions by testing its statements in order to discover how nearly that which has been recorded and inferred corresponds to what is observed experimentally or otherwise. Natural science admits nothing that cannot be observed, clearly set down and, in some manner, verified. Science deals with the part of the world which is investigable by its methods and makes no attempt to consider the rest. It does not inquire into the ultimate cause of the existence of things; it does not seek to incorporate the world of individual mental activity into its account of what we all perceive in common; and as a result of these factors true alchemy lacked the close linkage to industry which has always been present in chemistry; but as [Nietzsche 1974. p.233] maintains

Do you really believe that the sciences would ever have originated and grown if the way had not been prepared by magicians, alchemists, astrologers and witches whose promises and pretensions first had to create a thirst, a
hunger, a taste for hidden and forbidden powers?

although what Nietzsche maintains is true in terms of practical alchemy and later chemistry, he has failed in this statement to identify the significance of the true and most essential aspects of alchemical notions. However, at a later date, he does establish the links so essential to an understanding of true alchemy. These ideas are [cited in Knight 1933, p.39] where he believes life to be an experiment. "an experiment of the man who strives to learn the truth". He argues that life is essentially experimental and gets richer and more desirable as this essential element is recognised and, once again, we notice that the struggle or the striving is linked to the gaining of an understanding of the self and the nature of truth.

The material aim of the practical alchemists, the transmutation of metals, has now been realised by science, and the alchemical vessel is the uranium pile. Its success has had precisely the result that true alchemists feared and guarded against: the placing of gigantic power in the hands of those who have not been fitted by spiritual training to receive it.

From the Age of Reason, the world was nothing more than what could be qualified and quantified. Knowledge was arrived at through logical principles and deduction; reason sought truth in intellectual proofs rather than divine authority. Scientists walked away from their former partnership with religion and spiritualism to worship at the altar of materialism. For the scientist, the world of mystery and emotion became irrelevant to the "real" issues that could be measured and proven by eye and brain.

Science and scientists became hand-cuffed to the needs of industry and the power of leaders of industry, to government and, in time, to the mighty machine of
the military and the war mongers. Even today we witness the design of a strategy to place nuclear warheads in space as a so-called deterrent to invasion.

[Sclove 1989, p.82] in talking about Frederick Soddy, winner of the Nobel Prize in chemistry, states how Soddy warned publicly of the future dangers of atomic war. His recommendation focused on the need, not only for scientific knowledge but also upon emotion, creativity and many sorts of nonscientific knowledge. Soddy further suggests that technological assessment should take into account, not only the demonstration of intellectual skills, but should also include the development of emotional, intuitive and imaginative gifts. Participants should, he maintains, include poets, artists, novelists and performers who demonstrate these particular attributes.

Although modern science has realised enormous progress and benefits, particularly in the field of medicine and communication, society has grown up with fear of the prospect of global nuclear warfare. Melt down and radioactive fallout is a constant threat to the population. Machines choke the cities and contaminate the atmosphere. Oceans and rivers are used as repositories for unwanted effluent and industrial waste. The ozone layer has developed a gaping hole as a consequence of technological developments and CFC emissions. Fossil fuels, used for the production of energy, are being depleted at a rapid rate. Forests are disappearing around the world for the production of material possessions and indestructible plastics will litter the globe for the next million years. There is little need to ask whether materialism has failed. Humankind, through science, has a great deal to answer for and now needs to look for alternatives and solutions.

In referring to this dilemma, [Leo 1972 p.43]) decides that "Only in the last few years has man begun
to see his error. People woke up, started to realise that they had been neglecting large and important parts of themselves, and of the world as a whole." He further argues that "the universe is a unity and everything in it is linked; that the nature of matter and its properties should be looked at in terms of mans' nature and his place in the scheme of things".

It is said that the objective of science is limited. Each scientist seeks to add a small section to the growing fabric of knowledge but he does not, as scientist, try to construct a system of the world that includes everything that humankind can seek to know, past and present.
Unworldly Forces of the Metaphysical
ALCHEMY, MEDICINE and ILLNESS.

"Man was made for joy and woe
And when this we rightly know
Thro' the world we safely go
Joy and woe are woven fine
A clothing for the soul divine."
William Blake

With the study of drawings and bony remains from prehistory we can say with some assurance that primitive people had a rudimentary knowledge of medicine. It is assumed that a process of trial and error must have been these first peoples' experiments with the use of plants and vegetation. Plants and vegetation would have been selected for food and other beneficial purposes, including medicinal, making sure of steering clear of the poisonous ones. Today, we see alternative medicine consisting largely of the use of plant and herb products as remedies which have been taken from folk or domestic medicine.

It is almost impossible to understand how or what primitive people thought about disease and death but it seems probable that common maladies were accepted as a part of their natural existence and would be treated by herbal remedies that were available. In contrast, serious and disabling diseases would have been seen in quite a different way. Retribution or punishment from an offended god or malevolent demon could have been seen as the cause. The victim, assuming that this were true would search for some other means of cure.

As with modern primitive cultures, they would look for a treatment that would lure, what they considered, evil from their bodies to regain health. An example of providing the disease with an escape, used by prehistoric people, was, and is still, by 'primitive' people, the incision of a hole in the skull of the victim. Called trepanning it was seen as a way of allowing the disease to escape the body.
Magic and religion also played a large part in the medicine of primitive or prehistoric people. The administration of the vegetable drug to the victim was accompanied by dancing, incantations and gestures and the use of charms and talismans were adjuncts to this treatment. Thus the witch doctor, the magician and the sorcerer were instrumental in the treatment of sickness from a very early stage.

[Stillman 1960, p.107] contrasts these primitive practices by referring to modern physical science and how it observes phenomena and follows the operations of natural forces without the intervention of supernatural agencies. Primitive races, contrary to this hypothesis, see supernatural causes in the events of everyday life. Diseases were seen as a "punishment, penance or mischief" and as long as it was believed as being a direct "act of will or design by good or evil spirits" the development of proper and logical cures was delayed.

The picture of the development of medicine becomes clearer during the times of the ancient Egyptians and with the discovery of the papyri by Ebers and Edwin Smith in the 19th. century we begin to see written evidence of, in the former, a list of remedies, with appropriate spells or incantations, while the latter describes surgical procedures on open wounds and other injuries without the magic.

The development of medicine, [Stillman p.26] says corresponds directly with the development of magic. Medicine and magic, were developed simultaneously; medicine by the writings of Hippocrates and magic by the work of Democritus around 450 B.C. Obviously, the transition from magic to science was a very gradual process and subsequent generations inherited many Egyptian medical ideas and procedures. However, it was with the ancient Greeks, and particularly the Greek philosophers that provided the impetus that led people
to refuse to be guided solely by supernatural influences and to seek out the reasons for natural phenomena.

In the 5th century B.C. Empedocles believed that the universe was composed of four elements—fire, water, air and earth. This led, in time, to the belief that the maintenance of health was dependent on the harmony of the four humours namely blood, phlegm, yellow bile and black bile.

The doctrine of the four humours was accepted by many practitioners of medicine in ancient times and amongst these was Galen, a Greek doctor, who employed the practice of treating the patient holistically and fostering the idea of natural cure.

With the fall of Rome and the dawn of the early Middle Ages, experiment and originality was discouraged. Progression in medicine was affected by the influence of the church on the one hand and, on the other, by Arab scholars. The church regarded disease as a punishment for sin, with prayer and repentance being the remedy. It seems the church was responsible for the suppression of medical experiment but did contribute to extensive nursing care and to the preservation and transcription of the classical Greek manuscripts some of which concerned medicine.

If the church was the first reservoir of medical knowledge and learning at this time, then the Muslim Empire was the other and it was at this juncture that medicine and practical alchemy establishes a compatible relationship. Arabic medicine manifested itself primarily through chemistry and many new drugs were developed, as were the processes of sublimation and distillation.

This was also a time when schools of medicine were being established and were instrumental in formalising medical knowledge and practice. Medical practice, although being looked at seriously, was still a victim of irregular and somewhat illogical doctrines. It seems there were
still practitioners who looked to the past and referred to astrology and the four humours as a basis for their diagnosis. However, with the Renaissance of the 14th, 15th and 16th centuries came a dramatic change of attitude and outlook. Apart from a revival of interest in Greek and Roman culture, there appeared a desire for experiment and discovery never before experienced. Exploration of new fields of thought, particularly in medicine, revolved around anatomy and physiology and with this inquiry and new knowledge of the human body came a repudiation of existing traditional ways.

The relationship of alchemy to the development of medicine is obvious through research, and in particular through research of Chinese alchemy in the East and through Paracelsus, amongst others, in the West; but what is not so evident is the connection and significance of alchemical notions in relation to illness. That is, until we begin to think of illness in terms of alchemy as a struggle and mastery of matter or problem. [Duff 1969, p.40] became a believer in the power of the body to cure itself and describes how many sick people, searching in vain for a cure eventually realise that the cure cannot be found outside of themselves but must come from within. This, she states is an internal process. She also believes that the intervention of modern medicine "lock us into bitterness and keep us from the promise of wisdom by intercepting the disease process." Her belief in this process as a way to enlightenment and vision is not only espoused by Rimbaud but has direct connections to explanations in alchemical texts relating to the process of calcinatio and the production of salt.

Nietzsche, [cited in Knight 1933, p.36] also mentions the importance of suffering through illness and maintains that a much clearer and deeper insight into life is gained when ill. He maintains that illusions are the consequence of good health and these tend to cloud
or obscure the truth.

Duff experiences illness as a type of transformation and relates the states of illness to specific alchemical processes. She maintains that practical alchemists in their experiments with closed containers reduced the matter/problem to a confused mass and returned it to its original state of disorder. She describes four practical alchemical processes that facilitated this breakdown: calcinatio, solutio, sublimatio and coagulatio.

If we look at these processes symbolically we can see them clearly in relation to illness. The first one, 'Cadinatio', being a burning process, is evident in illness as a fever but is also associated with the frustrations felt when sick. Duff argues the aspect of fever by making reference to phrases we use frequently such as 'I'm burning up inside' or 'she's burning with anger, resentment or envy' and says about the frustrated desires "There is no doubt about it, we cannot get much of what we want - sleep, - pleasure, - activity, or company when we are sick".

'Solutio', the dissolving process in alchemy, provokes tears of frustration, confusion and disorientation but has the properties of opening the mind to lifes' mysteries and its full chaos and so becomes a part of the healing process.

'Sublimatio' is experienced as transcendence, while the operation of 'coagulatio', the last, is, in alchemical terms related to the earth and is symbolic of the way in which our bodies are confined and controlled by physical existence. When we are sick we lose the ability to do the things that were possible in a healthy state. We are denied the freedom that health bestows and realise the strict limits that sickness places upon us.

When combined, these four processes end in decay or death; or in practical alchemical terms the 'Nigredo'.
or blackening. It symbolises defeat, failure and humiliation and correlates to experiences felt when sick; but it is also a turning point, a rebirth or rather a recognition of other states of being. Physical pain and sickness, says [Duff p.42] has the effect of cancelling the claims of the world and its pressures of every day existence and allows us to indulge in an "immense sense of leisure and inner spaciousness." and consequently opens us to the "unworldly forces of the metaphysical."
Conclusion.

Nusrudin stood up in the market-place and started to address the throng. "O people! Do you want knowledge without difficulty, truth without falsehood, attainment without effort, progress without sacrifice?"

Very soon a large crowd gathered, everyone shouting: "Yes, Yes!"

"Excellent!" said the Mulla. "I only wanted to know. You may rely upon me to tell you all about it if I ever discover any such thing."

Idris Shah

The concept of alchemy takes us on a journey through time and civilisations. It cuts across cultural beliefs and at the same time enhances them. It is a story of the struggle to understand the meaning and significance of what lies beneath the surface of existence; to inquire into those realms of knowledge and understanding that confound.

I have tried to explain how alchemy has affected the development of civilisation from recorded history and how this growth has manifested itself through alchemical insights both practically and mentally. My main aim was to establish the relationship of alchemy to those qualities of the human mind that are not obvious and requires a much closer scrutiny.

It was not my intention to find definitive answers or solutions and although I have discussed the issues in a particular way I realise that it is not the only way and was for me primarily a quest to understand myself and my actions better. I feel that I am only a short distance along this path and have barely touched on the many and varied issues that are involved. It has become obvious that the umbrella of alchemy shelters a wealth of diverse ideas and doctrines, and has, throughout its long history, been capable of coping with many interpretations. Mine is but one.
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Certification

I certify that this thesis has not been submitted in full or in part, for a higher degree to any other institution.

sign. Christopher Jones

date. 15-11-95.
One Square Inch Between the Eyes.

notions of alchemy

by

G. J. P. Downes.


Nepean
The mandala featured on the title page was reputedly painted by Jung and was featured in his book "Concerning Mandala Symbolism". In the centre, the white light, shining in the firmament; in the first circle, protoplasmic life-seeds; in the second, rotating cosmic principles which contain the four primary colours; in the third and fourth, creative forces working inward and outward. At the cardinal points, the masculine and feminine souls, both again divided into light and dark.

Fig. 1
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Summary

It became very obvious, during my research, that alchemy was much more than just aspects of practical metallurgy and much more relevant in terms of symbolic and psychic investigations into the significance of the unconscious mind, the individual and the journey to discover the 'centre.' I use the concept of alchemy as a means to explore the unknown mystery of existence, being and the inner self.

Alchemy has become my creative vehicle to better understand myself, the world and my place in the world. Through looking into notions of alchemy, of which there are many, I came across the following phrase that had an immediate impact.

"One Square Inch Between the Eyes" is a phrase used by Taoists to describe that area of the body that contains the highest form of energy and is the centre of spiritual development and transformations. Important aspects of true alchemy appear through Taoist manifestations and is expressed by the unity of nature and humankind. It is seen as a principle of universal understanding and a means to get behind or within appearances. It is the imperceptible and indiscernible, about which nothing can be predicted but that latently contains the forms, entities and forces of all particular phenomena.

Special areas of interest have revolved around the significance and the struggle with matter and material that has preoccupied humankind throughout time and in particular the layers that are formed by shifting ideas, and diverse cultures.

This thesis begins to inquire into aspects of how alchemical notions have developed, both on a practical and symbolic level and how both have impacted on our lives. In the research process, several definitions of alchemy have been identified together with how these
definitions have been adopted culturally. I begin to look at areas of art and creativity, science and chemistry, medicine and illness and how people see these aspects of cultural necessities through alchemical concepts and notions.
Preface.

This thesis has been the result of an inquiry into the notions of alchemy and should be read in relation to my work as a practicing artist. Through the course of the research both the practice and the theory have been closely related and subjected to various interpretations, as indeed alchemy has been through the ages. This inquiry started with a search for an understanding of alchemy and where that stood in relation to science and visual, creative endeavour. As the research process developed and more information gathered, it became obvious that alchemy was more than just aspects of a developing chemical science, metal craft or some obscure involvement with magic, astrology and the arcane, and much more relevant in terms of symbolic and psychic investigations into the significance of the unconscious mind and the individual. Generally the research for this thesis was achieved through the study of archival sources, interviews with other artists concerned with similar notions and empirical observation.
List of Illustrations

1. Title page. An example of a European Mandala Reproduced in Alchemical Studies Plate A6. [collection of C.G. Jung Institute.]


6. Adepts shown as children. [Percival David Foundation of Chinese Art.]


10. Medieval illustrations of the four elements Universitat sbibliothek Heidelberg/ Photos Lossen.
