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ALCHEMY AND ART DURING THE SIXTEENTH
AND SEVENTEENTH CENTURIES

by

LYNETTE DAWN GRANT

Submitted to the Faculty of Arts
in fulfilment of the requirements
for the Degree of Master of Arts
in the Department of Fine Arts,
University of Sydney.

SYNOPSIS

The examination of alchemical art in Europe during the sixteenth and seventeenth centuries brings to light the fact that the symbols employed invariably had multiple meanings, but embodied a consistent polarity.

In pictorial representation the secret meanings implied in the symbols were sometimes less concealed, and the possibility of gaining more insight into the true nature of alchemy is therefore probably greater by this type of examination than by scrutiny of literary records alone. The process not only reveals something of the nature of alchemy but gives an indication of the attitudes of the various artists to alchemy and the degree to which they were truly initiated into the secrets of the alchemical doctrine.
ACKNOWLEDGEMENTS

My first and deep gratitude is to Dr. Eneide Mignacca, Senior Lecturer Department of Fine Arts University of Sydney, for his expert advice and encouragement.

I am very grateful to my husband Graham for his sincere encouragement during the preparation of the thesis. Many thanks to Fay Hamilton for her competence in typing the manuscript.
To my dear children
Cameron and Alicia
<table>
<thead>
<tr>
<th>SECTION ONE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2. ALCHEMY AND ART</td>
<td>4</td>
</tr>
<tr>
<td>3. ALCHEMICAL SYMBOLISM</td>
<td>8</td>
</tr>
<tr>
<td>3.1 A Numerical Conception of the Stone</td>
<td>8</td>
</tr>
<tr>
<td>3.2 The Four Qualities and the Four Elements</td>
<td>10</td>
</tr>
<tr>
<td>3.3 Gold</td>
<td>12</td>
</tr>
<tr>
<td>3.4 Silver</td>
<td>14</td>
</tr>
<tr>
<td>3.5 Mercury</td>
<td>16</td>
</tr>
<tr>
<td>3.6 Alchemical Symbols</td>
<td>16</td>
</tr>
<tr>
<td>4. ART WORKS WHICH ILLUSTRATE THE DIVERSE AND COMPLEX NATURE OF ALCHEMY</td>
<td>20</td>
</tr>
<tr>
<td>4.1 The Vase of Hermes in the Athanor</td>
<td>20</td>
</tr>
<tr>
<td>4.2 Aim at This Carefully with Fiery Sword</td>
<td>22</td>
</tr>
<tr>
<td>4.3 The Stone of Saturn</td>
<td>25</td>
</tr>
<tr>
<td>4.4 The Representation of the Sulphur-Mercury Theory</td>
<td>29</td>
</tr>
<tr>
<td>4.5 The First Key of Basil Valentine</td>
<td>31</td>
</tr>
<tr>
<td>4.6 An Emblematic Representation of the Great Work</td>
<td>34</td>
</tr>
<tr>
<td>4.7 The Oratory and the Laboratory</td>
<td>38</td>
</tr>
<tr>
<td>5. GERMANY</td>
<td>42</td>
</tr>
<tr>
<td>5.1 Albrecht Dürer</td>
<td>42</td>
</tr>
<tr>
<td>5.2 Hans Weiditz</td>
<td>47</td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>6.</td>
<td>FLANDERS</td>
</tr>
<tr>
<td>6.1</td>
<td>Pieter Brueghel The Elder</td>
</tr>
<tr>
<td>6.2</td>
<td>David Teniers The Younger</td>
</tr>
<tr>
<td>6.3</td>
<td>Cupids In The Laboratory</td>
</tr>
<tr>
<td>7.</td>
<td>HOLLAND</td>
</tr>
<tr>
<td>7.1</td>
<td>Steen</td>
</tr>
<tr>
<td>7.2</td>
<td>Thomas Wijck</td>
</tr>
<tr>
<td>7.3</td>
<td>Rembrandt van Rijn</td>
</tr>
<tr>
<td>7.4</td>
<td>Adrian van Ostade</td>
</tr>
<tr>
<td>8.</td>
<td>SPAIN</td>
</tr>
<tr>
<td>9.</td>
<td>ITALY</td>
</tr>
<tr>
<td>9.1</td>
<td>Antonio Tempesta</td>
</tr>
<tr>
<td>10.</td>
<td>ITALIAN MANNERISM AND ALCHEMY</td>
</tr>
<tr>
<td>10.1</td>
<td>Pontormo</td>
</tr>
<tr>
<td>10.2</td>
<td>Parmigianino</td>
</tr>
</tbody>
</table>

SECTION TWO

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>THE SEARCH FOR A HIGHER REALITY</td>
<td>109</td>
</tr>
<tr>
<td>12.</td>
<td>PSYCHOLOGY AND ALCHEMICAL SYMBOLISM</td>
<td>112</td>
</tr>
<tr>
<td>13.</td>
<td>COLOUR SYMBOLISM IN ALCHEMY</td>
<td>117</td>
</tr>
<tr>
<td>14.</td>
<td>ALCHEMICAL ART IN ARCHITECTURE AND SCULPTURE</td>
<td>123</td>
</tr>
<tr>
<td>14.1</td>
<td>Notre Dame Cathedral</td>
<td>123</td>
</tr>
<tr>
<td>14.2</td>
<td>St. Margaret's Church, Westminster</td>
<td>125</td>
</tr>
<tr>
<td>14.3</td>
<td>Churchyard of the Innocents</td>
<td>127</td>
</tr>
<tr>
<td>14.4</td>
<td>Escorial Spain</td>
<td>127</td>
</tr>
</tbody>
</table>
LIST OF PLATES

PLATE 1  THE VASE OF HERMES IN THE ATHANOR
From Elementa Chemicae. Engraved by
J.C. Barchussen, Leyden, 1718 21

PLATE 2  "AIM CAREFULLY WITH FIERY SWORD"
From Michael Maier's Atalanta Fugiens.
Oppenheim. 1618 23

PLATE 3  THE STONE OF SATURN From Michael
Maier's Atalanta Fugiens, Oppenheim.
1618 26

PLATE 4  THE REPRESENTATION OF THE SULPHUR-
MERCURY THEORY. From Michael Maier's
Viridian Chemicum, 1619, Engraved by
D. Stolcius 30

PLATE 5  THE FIRST KEY OF BASIL VALENTINE
From Michael Maier's Viridian Chemicum,
1619. Engraved by D. Stolcius 32

PLATE 6  AN EMBLEMATIC REPRESENTATION OF THE
GREAT WORK. From Michael Maier's
Viridian Chemicum Frankfurt, 1624.
Engraved by D. Stolcius 35

PLATE 7  THE ORATORY AND THE LABORATORY-
Drawing executed after Heinrich
Khunrath's design and published
in Khunrath's Amphitheatrum Sapientiae
Aeternae 39

PLATE 8  MELANCHOLIA I, 1514 (Wood-cut),
Albrecht Dürer 43

PLATE 9  THE RAPE OF EUROPA; APOLLO;
ALCHEMY; THREE LION'S HEADS.
Drawing (290 x 15 cm). Albrecht Dürer.
Vienna Alberta. 48

PLATE 10  AN ALCHEMIST AND HIS ASSISTANT AT WORK
(Wood-cut) 1520, Hans Weiditz 51

PLATE 11  THE ALCHEMIST AT WORK (44.5 x 33.5 cm)
1558 an engraving after the painting
by Pieter Brueghel the Elder, by
Hieronymus Cock (1510-70) 54

PLATE 12  SELF PORTRAIT (Oil on canvas) David
Teniers 60

PLATE 13  LE GRIMOIRE D'HYPOCRATE OR THE BLACK
BOOK OF HIPPOCRATES. David Teniers,
engraved by Pierre Basan, Berlin
Gallery 61
<table>
<thead>
<tr>
<th>PLATE</th>
<th>TITLE</th>
<th>ARTIST</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>AN ALCHEMIST IN HIS LABORATORY</td>
<td>David Teniers</td>
<td>Engraved by C. Straub, Dresden Gallery</td>
</tr>
<tr>
<td>15</td>
<td>LE CHIMISTE 1648. (21&quot; x 16&quot;)</td>
<td>David Teniers, Fisher Collection, Pittsburgh, Pennsylvania 1648</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>CUPIDS IN THE LABORATORY (oil on canvas)</td>
<td>1614</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>THE ALCHEMIST</td>
<td>Jan Steen</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>LE MENAGE DU CHEMISTE</td>
<td>Thomas Wijck, engraved by Pierre Chenu 1718-1780, and issued by Basan, 49.8 x 35.6 cm</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>L'ALCHIMISTE EN MEDITATION</td>
<td>Thomas Wijck. Engraved by Victor Texier (1777-1864)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>DR. FAUSTUS 1648-1651</td>
<td>Etching</td>
<td>Rembrandt van Rijn</td>
</tr>
<tr>
<td>23</td>
<td>SUPPER AT EMMAUS</td>
<td>Pontormo 1525, Florence Uffizi.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>SELF PORTRAIT IN CONVEX MIRROR</td>
<td>Parmigianino</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>MADONNA WITH THE ROSE (1528-30)</td>
<td>Parmigianino. Dresden Gallery</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>MADONNA DEL COLLO LUNGO 1535</td>
<td>Parmigianino. Florence, Uffizi.</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>THE ALTAR OF MADONNA WITH ST. STEPHEN AND ST. JOHN THE BAPTIST (1538-1540)</td>
<td>Parmigianino, Dresden Gallery</td>
<td></td>
</tr>
<tr>
<td>FIG. 1.</td>
<td>A NUMERICAL CONCEPTION OF THE STONE</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>FIG. 2.</td>
<td>THE FOUR QUALITIES AND THE FOUR ELEMENTS</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>FIG. 3.</td>
<td>GOLD</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>FIG. 4.</td>
<td>SILVER</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>FIG. 5.</td>
<td>MERCURY</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>FIG. 6.</td>
<td>ALCHEMICAL SYMBOLS</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>TABLE</td>
<td>DESCRIPTION</td>
<td>PAGE</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>THE FOUR STAGES AND THE FOUR COLOURS IN ALCHEMY</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>THREE STAGES IN ALCHEMY AND THEIR COLOUR EQUIVALENTS</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>SILBERER'S TRIPlicate COLOUR DIVISIONS</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>ATTITUDES TO ALCHEMY AS REFLECTED IN ART</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>CATEGORIES OF ALCHEMICAL ART</td>
<td>157</td>
<td></td>
</tr>
</tbody>
</table>
SECTION ONE
CHAPTER ONE

INTRODUCTION

Alchemical theory has existed for 4,000 years, and in that time over a hundred thousand manuscripts have been written on the subject. In France alone during the eighteenth century there are over 6,000 treatises, many with accompanying illustrations.

The origins of alchemy stem from the ancient civilizations of Egypt, China and Babylonia where the knowledge of gold transmutation was passed on to the Greeks and Arabians. The word "Alchemy" comes from the Egyptian "Kheneria" with the article al; which literally means "the science of black earth or prime matter".

In the past alchemy was studied along with mysticism, religion, magic, mythology, folklore, astrology and philosophy, interwoven with rudimentary chemistry.

With the Renaissance and the developing sciences alchemy was criticized and ridiculed by those people who saw the study in terms of material transmutation only. Alchemy, however, was more than the transmutation of gold from base metals, it involved a deep philosophy concerned with the transmutation of the soul.

Alchemy in relation to present day physics maybe more than a distintegration of the atom, perhaps a fragment of knowledge which has been lost, which may contain the secrets of energy and matter. Transmutation of elements is carried out today in atomic laboratories at great expense.  

Jung in his study into archetypal and collective symbols inherent in man's unconscious, came to the conclusion that alchemy was a projection of the unconscious mind on matter. He also believed that the philosopher's stone was the liberated spirit or soul (or unconscious self) which, when released from the body created symbolic dreams and fantasies. For example, the archetypal symbol of the snake devouring its own tail was used to represent creative energy in a cosmic context. It is interesting that the German chemist Kekule discovered the formula for benzene after seeing the image of the ouroboros in a dream.  

The Alchemist was aptly described as an artist, a seeker of knowledge who dedicated his life to the unknown. The attainment of the secrets of material and spiritual transmutation was of a kind mystics seek.

Hundreds of books refer to "the great awakening", when interior transmutation and spiritual heights are reached, and when the unity essential to all living things is attained and the adept becomes one with nature.\textsuperscript{11}

Material transmutation was regarded as secondary to spiritual enlightenment since it was a demonstration that the Great Work had indeed been accomplished.\textsuperscript{12} Alchemy projected an inner psychic experience into chemical equivalents which were imbued with mysterious possibilities.\textsuperscript{13}

\textsuperscript{11} Burland, C.A. 1967, p. 206.
\textsuperscript{13} Jung, C.G. 1967, p. 108.
CHAPTER TWO

ALCHEMY AND ART

The earliest alchemical illustrations were crude diagrams of apparatus found in manuscripts, mostly translated into Latin from the Arabic. 14

Alchemical pictorial expressions can be described as complex, cryptic, enigmatic allegorical and mystical, often misunderstood iconography. 15 Because of the secretive and obscure nature of alchemy, particularly evident in written accounts, the illustrations of alchemy can help to illuminate and make the process more intelligible. Pictures can give glimpses into the spiritual nature of the alchemist's quest as well as valuable information concerning his apparatus and mode of work. 16

Visual representations and symbolic alchemy presuppose the change in matter, symbolized as being analogous with living creatures, and in particular man. The symbols evolved as a means of demonstrating how man could transmute to higher states. Symbols were not so much mystical concealments of how gold and silver could be produced from base metals, but pictorial and allegorical equivalents of processes, substances and apparatus. 17 Alchemical symbols

are difficult to interpret due to their multiple meanings, pictorial variations and interpretations through the centuries according to the intellectual and social climate of the day.

The symbols are neither reconstructions or descriptions of alchemy but, part of alchemy itself; symbols which can express the naivety and tortured philosophic reasoning of the alchemist. The alchemical paintings, drawings and engravings are expressions and interpretations in terms of natural phenomena of unknown factors in the universe.

Scientific treatises during the middle ages and the Renaissance were invariably accompanied by copper-plate engravings which were vivid, rich and decorative, but mainly inaccurate in the strict scientific sense. Copper-plate engravings reached a peak during the 16th century at a time when alchemical illustrations were clothed in elaborate allegories. Artists were allowed freedom of invention and personal expression in illustrating alchemy, therefore the etchings, drawings and paintings executed in the 16th and 17th centuries were as diverse in style as in philosophical meaning and temperament. The engravings and wood-cuts, intended as illustrations of alchemical texts, concentrated on the processes and ideas of alchemy rather than on the alchemist himself, as will be seen in the paintings and drawings of Teniers, Stradanus, Brueghel, Wijck, Steen and others. However, in many ways the painters and engravers

18. Read, J. 1944, pp. 239; 245.
afford a better idea of equipment and experimentations than the vast written records of reputed achievements. 19

In the 16th century the emphasis shifted from ancient cultist ideas of practical transmutation to a new mythology centred on the purification of the soul, with the producing of gold as a secondary adjunct to 'inner-transmutation' 20 nonetheless in the 16th century as in other periods alchemy had its critics, as is exemplified in the works of Brueghel and Weiditz.

During the 17th century alchemists became even more concerned with the inner meaning of substances, which lead to a search for the spiritual nature of the cosmos. The depiction of furnaces and vessels gave way to symbols of higher levels of illumination, for example, planets and metals. The esoteric philosophers used 'all types of cryptic, allegorical and mystical concealments in their symbols in order to disguise their secrets from the uninitiated.

At the end of the 17th century there was a marked social attitude towards the alchemist. People either saw him as an eccentric and strange individual lost in his own world of weird philosophies, or a fool or 'puffer' aimlessly pursuing a senseless quest. Artists who depicted the latter conception included Teniers in The Pleasure of Fools and Steen in The Alchemist. The paintings were biting and satirical, reinforcing the popular opinion and growing misbelief in

transmutation. Theology and Science were upheld as being the only real reservoirs of knowledge. 21

Painters who portrayed the Alchemist and his work in Europe during the 16th and 17th centuries included Brueghel, Van Bentum, Bega, Van Ostade, Durer, Weiditz, Steen, Matham, Stradanus, Wijck, Cranach and Teniers. Parmigianino, Rembrandt and Cambiaso though not specifically portraying the alchemist and his experimentations did however, include some important alchemical symbols in their work.

Alchemy as an interesting subject in the genre sense, is most characteristically found in the Low Countries and in Germany, i.e. countries which had a background of pharmacy, mines and mechanics which helped to foster a tolerance and interest in alchemy. 22

22. Read, J. 1944, p. 239.
CHAPTER THREE

ALCHEMICAL SYMBOLISM

The following chart, (Fig. 1) is derived from a numerical conception of the philosopher's stone after the writings of Basil Valentine at the end of the 16th century.

3.1 A NUMERICAL CONCEPTION OF THE STONE

(A) THE FOUR ELEMENTS DERIVED FROM GOD.

(i) EARTH (Black) ........ all solids are earth to the alchemists, but our earth means 'prime matter'.

(ii) WATER (White) ........ to the alchemists all liquid is 'water'.

(iii) AIR (Citrine) ........ denotes the spirit or soul in alchemy.23

(iv) FIRE (Red) ........ is the uniting principle which binds body, spirit and soul. In the invisible fire the mystery of alchemy is enclosed. The fire itself is fire and water at once; what alchemists call the "living fire".24

(B) THE THREE PRINCIPLES DERIVED FROM NATURE.

All things to the alchemist are constituted from sulphur, salt and mercury. The three principles also refer to the 'essences' of the Great Work.

23. Read, J. 1936, pp. 58; 262.
A NUMERICAL CONCEPTION OF THE STONE
(C) THE TWO SEEDS DERIVED FROM METALS.

   (i) Gold is symbolized as the masculine element and Sun.

   (ii) Silver is symbolized as the feminine element and Moon.

(D) THE ONE FRUIT DERIVED FROM ART.

   Tincture is to the alchemist the spirit or soul necessary for the completion of the alchemical process.  

3.2 THE FOUR QUALITIES AND THE FOUR ELEMENTS (Fig. 2)  

   A simple system comprising of earth, fire, air and water and the four qualities of hot, dry, cold and wet.

   This may appear crude and unsophisticated by comparison with present-day scientific thinking, but nonetheless it formed the basis of thought or type of analytical thinking from the early beginnings of alchemy.  

   When studying alchemy and its wealth of visual material, the historian must keep in mind that alchemy transcends all dogma and religious systems and therefore cannot be bound to a single closed theory.  

3.3 GOLD (Sol) (Fig. 3)

The symbol of gold was the ultimate symbol of spiritual transmutation. For gold there were at least sixty-five signs. The circle for gold and sol however, was a universally accepted symbol.

Everything comes from the One and returns to the One, by the One, for the One. Thus speaks the Ouroborus the symbol of the Infinite Eternal One, and the Great Work in Alchemy, representing the eternal cyclic nature of the universe. The solar hieroglyph of gold expresses the same meaning. In Hermes Trismegistus' 'Emerald Table' alchemy is referred to as the operation of the sun.

Symbols became a type of secret alphabet from the middle ages and were used as shorthand and a means of ensuring secrecy in alchemy. Many symbols stem from antiquity, for instance, there are alchemical signs engraved on Graeco-Roman and Egyptian tombs. Some symbols derive from astrological sources, for example, the sun symbol or disc portrayed on the throne of Tutankhamen in the 14th century B.C. The sun symbol is used today in many cultures. In 20th century Japan a circular mirror representing the divine sun is central to the Shinto religion.

The alchemists invented a massive number of symbols since they sought a wholeness of man encompassing mind, body and soul and needed symbols so profound as to be sometimes quite baffling.

3.4 **SILVER (Luna)** (Fig. 4).

The symbols of sun and moon signified change of manifesting and iniating new things on earth.\(^{34}\) The two contraries or opposing principles in pictorial alchemy or proximate materials of the Great Work lay behind the conception of Hara-Parvati (India), Yin-Yang (Ancient China) and Isis-Osiris (Ancient Egypt).

Silver (sophic mercury) or Luna stems from Isis or mother diety in Egypt being the female principle in alchemy opposite to the male gold (sophic sulphur) or Sol. Silver is sometimes depicted as a white queen opposite to the gold (red) king. Whereas gold is fixed, active, positive and the giver in alchemy; silver is volatile, passive, negative and the receiver.\(^{35}\)

The moon symbol is as ancient as the symbol for the sun. Figurines of the goddess Ishtar wearing the characteristic crescent-shaped crown have survived from the 3rd century B.C. in Babylonia.\(^{36}\)

3.5 **MERCURY** (Fig. 5)

Mercury constituted one of the three essences with salt and sulphur and also symbolized spirit and water, as well as the planetary metal mercury. Mercury was sometimes depicted as a winged lion or mercurial serpent, clothed in elaborate allegory and symbolism and used to illustrate the Sulphur-Mercury theory in alchemy.

The serpent is a synonym for divine water, the ouroboros being the god hidden in matter - the divine water was the alpha and omega of the alchemical process.37

3.6 **ALCHEMICAL SYMBOLS** (Fig. 6).

**THE SEVEN PLANETARY METALS**38

From the beginning metals and planets were closely linked in alchemy. Metals differed in degree but not in nature, according to the alchemist and were composed of the same primodial matter, unique in form and expression of that matter.

The number seven and its mystical relationships included the seven major planetary bodies; the seven minerals or metals; the seven operations of alchemy lasting seven days and the seven degrees of initiation into alchemy.39 For example, in Durer's "Melancholia" seven rungs of a ladder

### Alchemical Symbols

<table>
<thead>
<tr>
<th>THE SEVEN PLANETARY METALS</th>
<th>THE TWELVE PROCESSES IN ZODIACAL TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOLD</td>
<td>LEO                    Digestion</td>
</tr>
<tr>
<td>SOL</td>
<td>VIRGO                  Distillation</td>
</tr>
<tr>
<td>SILVER</td>
<td>LIBRA                  Sublimation</td>
</tr>
<tr>
<td>LUNA</td>
<td>SCORPIO                Separation</td>
</tr>
<tr>
<td>COPPER</td>
<td>SAGITTARIUS            Ceration</td>
</tr>
<tr>
<td>VENUS</td>
<td>CAPRICORN              Fermentation</td>
</tr>
<tr>
<td>IRON</td>
<td>AQUARIUS               Multiplication</td>
</tr>
<tr>
<td>MARS</td>
<td>PISCES                 Projection</td>
</tr>
<tr>
<td>MERCURY</td>
<td>ARIES                  Calcination</td>
</tr>
<tr>
<td>MERCURY</td>
<td>TAUROS                 Congelation</td>
</tr>
<tr>
<td>LEAD</td>
<td>GEMINI                 Fixation</td>
</tr>
<tr>
<td>SATURN</td>
<td>CANCER                 Solution</td>
</tr>
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<td>TIN</td>
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#### The Four Elements

- Air
- Fire
- Water
- Earth

#### Some Other Symbols

- Salt
- Sal Ammoniac
- Salt Fixed
- Realgar
symbolize the seven planets and metals. In Khunrath's "Amphitheatrum Sapientiae" a seven-pointed stellate lamp occupies a dominant position in the alchemical scheme.

It is also interesting to note that the alchemical symbol, Quadratura Circuli has seven points and seven sides, the squared circle being the symbol of wholeness and the union of opposites in the universe.

THE TWELVE PROCESSES IN ZODIACAL TIME

The alchemical process took place only under favourable planetary conditions according to whether the operation was the division, separation or conjunction of the elements. The great work came to fruition within twelve months or twelve years according to some authors.

Many alchemical pictures illustrate the twelve processes of zodiacal time. Examples include Salomon Trismosin's Splendor Solis (1582); the Lambsprincke series of plates, De Lapide Philosophico figurae et emblemata in Museum Hermeticum Reformatum et Amplificatum 1678; The Ripley Scrowles, Lubeck 1588; M. Maier's Atalanta Fugiens, 1618; Thomas Norton's Ordinal of Alchemy in Theatrum Chemicum Britannicum, London, 1652. (All the manuscripts cited are in the British Museum).

CHAPTER FOUR

ART WORKS WHICH ILLUSTRATE THE DIVERSE AND
COMPLEX NATURE OF ALCHEMY

4.1 THE VASE OF HERMES IN THE ATHANOR (Plate 1)

From Elementa Chemiae, J.C. Barchussen, Leyden 1718.

This is a typical example of an enigmatic emblem which was accompanied by an equally esoteric text used by the alchemist as a means of concealing alchemical secrets of the universe from the initiated. 45

The athanor or cosmic furnace and the egg-shaped hermetically sealed furnace was used in the last stages of the Great Work. The characteristically egg-shaped vessel denoted fertility and was also referred to as the 'Philosopher's egg'. 46

The function of the 'philosophical furnace or athanor was that within the Aludel or philosopher's egg or vase, the processes of the Great Work would culminate in the creation of the powder of projection or the philosopher's stone. 47

The external fire controlled and stimulated the inner fire in order to prevent the vessel from exploding. 48

46. Read, J. 1937, p. 15.
47. Bessy, M. 1963, p. 98.
PLATE 1. THE VASE OF HERMES IN THE ATHANOR
From Elementa Chemicae - Engraved by J.C.Barchussen,
Leyden 1718.
To many alchemists the athanor was regarded as the incubator, or brooding furnace. The identity of the athanor was often cloaked in mystery and disguised by such names as 'The Green Lion', 'The House of Chick', 'The Sepulchre' and 'The Triple Vessel'.

The cosmic furnace can be viewed as a microcosm, a little world similar to the astronomical cosmos with its own poles, seasons and zodiac.  

4.2 "AIM AT THIS CAREFULLY WITH FIERY SWORD" (Plate 2)  
From Michael Maiers Atalanta Fugiens,

Alchemical symbolism represented pictorially is mostly allegorical and through its narrative or particular symbolic story can convey the same theme to different adepts without much relationship to definitely ascertained facts.  

The blend of Gothic and Renaissance styles are combined in this copper engraving of a staged drama frozen in a point of time. The Renaissance doorway with its classical surround and the broken Gothic skyline of pointed steeples and dormer windows frame a fanatical figure threatening an egg with upraised sword.

This powerful linear design with its 90° perspective which leads the eye directly to the egg is dramatic and

measured.\textsuperscript{52} The space is framed with geometrically combined portals, stone walls, and openings for hearth and receding corridor. The alchemist in the guise of a warrior, about to divide the philosopher's egg into the four elements with his sword, symbolizes the heating of the hermetic vessel or philosopher's egg.\textsuperscript{53}

This type of illustration is not a straight-forward representation, yet it's meaning was clear to the adept. The alchemist aims at the egg\textsuperscript{54} "carefully, as is the custom with fiery sword; let Mars (iron) lend his aid to Vulcan (fire)\textsuperscript{55} and thence the chick (philosopher's stone) arising will be conqueror of iron and fire".

The Hermetic vessel was guarded by the 'sons of Hermes (hermetically sealed with the secret knowledge and ritual of the Divine Act inside). This knowledge was sacred and held only by adepts or sons of Hermes.\textsuperscript{56}

Jung wrote on the symbolism underlying the dividing sword and egg. The dividing sword signified the slaying of Sol and Luna after they had married, being slain by their own sword in order that the previous soul could be extinguished. The egg, since it contained the four elements and the yolk represented the physical world in alchemy. The egg was also synonymous for water, as well as the dragon or mercurial serpent, which was often depicted enclosed in the

\textsuperscript{52} Read, J. 1944, p. 245.  
\textsuperscript{53} Jung, C.G. 1967, p. 82.  
\textsuperscript{54} Read, J. 1947, p. 21.  
\textsuperscript{55} All sharp instruments including the sword denote fire in alchemy.  
\textsuperscript{56} Read, J. 1961, p. 36.
vase or philosopher's egg, representing the material of the Philosopher's Stone. 57

Other features of the egg which are worth noting in relation to the vast variations of this theme in alchemical art, (in the third part of Barchusen's *Elementa Chemiae* 58 (1718) alone, there are over seventy illustrations devoted to the processes which occurred in the philosopher's vase) include the characteristic spherical form, as the egg was the symbol of creation, which in the laboratory was a narrow-necked vessel capable of being hermetically sealed. The shell denoted the glass vessel or receptacle and the white and yolk were the white and yellow liquors respectively. 59

The processes inside the vessel were likened to incubation and therefore, the concept of time was an important factor. Maier wrote in 1617 that "Natures time is extremely long and the fashion of her concoction is uniform, and her fire very slow. That of Art, on the other-hand is short; the heating is controlled by the wit of the artist, as the fire also is made intenser or milder." 60

4.3 THE STONE OF SATURN 1618 (Plate 3)

This is another copper engraving from Michael Maier's *Atalanta Fugiens* series of fifty plates. Maier handles the Philosopher's Stone in an extraordinary way, and in

58. Read, J. 1936, pp. 151-152.
60. Read, J. 1961, p. 37
PLATE 3. THE STONE OF SATURN.
From Maier's Atalanta Fugiens, Oppenheim 1618.
general draws elaborate and extravagant parallels between alchemy and mythology.\(^{61}\)

The Atalanta Fugiens plates are boldly and decisively engraved with a relative coarse burin, and display considerable technical skill. Different techniques of shading are employed for the four elements, for example, air and wind are represented by a series of parallel lines; earth by curved cross-hatched lines; water is expressed by horizontal parallel lines occasionally crossed at right angles by vertical lines and broken by white patches or 'reflections; fire is described with restless, parallel and curvilinear lines'.\(^{62}\)

As already seen in the previous engraving the Atalanta Fugiens plates are an incongruous blend of Renaissance and Gothic styles. The Gothic influence which had largely disappeared in Germany by the middle of the 16th century still persisted in alchemical engravings affecting the iconography of the hermetic art.\(^{63}\)

Maier's interpretation of classical mythology in terms of alchemy shows Saturn, or Kronos\(^{64}\) (synonym for lead) hovering over a village church about to devour the philosopher's stone, which is placed as a memorial in the sky and dominates the whole design. Saturn was given to swallowing

\(^{61}\) Read, J. 1944, p. 238.
\(^{62}\) Read, J. 1944, pp. 244-245.
\(^{63}\) Read, J. 1947, p. 11.
\(^{64}\) Sadoul, J. 1972, p. 278.
his own children until foiled by Rheas device of substituting a stone wrapped in swaddling clothes in place of the infant Jupiter according to ancient myth.65

Saturnine mysticism is a complicated component of alchemical practice and philosophy and will be discussed in more detail when examining Durer's "Melancholia".

To Jung, the central idea in alchemy is the Stone or Lapis. The philosopher's stone complements the serpent just as the latter forms the lower opposite of man. The Lapis is also the symbol of the self (as a homunculus) and the collective soul. The stone in alchemy can also be interpreted as a hermaphrodite, since it is the father and mother of metals. The stone's 'oneness' is brought about by an evolved composite unity, being produced from the splitting and re-assembling of the four elements from the rotundum, which is an abstract, transcendent idea referring to the Anthropos or original man.

Therefore, if a modern psychological interpretation was applied to the significance of the philosopher's stone in alchemy, it would be a symbol for the projection of the self when man is made one. The unity of the stone is the equivalent to individuation.66

4.4 THE REPRESENTATION OF THE SULPHUR-MERCURY THEORY

(Plate 4).

From M. Maier's Viridian Chymicum 1619. Engraved by D. Stolcius.

The sulphur-mercury theory is represented by a mine with two streams of gases, marked with the alchemical symbols for sulphur (left) and mercury (right) in the process of conjunction or reaction in the bowels of the earth. An alchemist is seen above the crust of the earth engaged in preparing the philosopher's stone his operations contrasting symbolically to those of nature.

When sophic mercury and sophic sulphur were married a combination of opposites occurred in alchemy. The union of male and female principles (sulphur and mercury) spirit and soul, together with salt (which was the counterpart of the body) ultimately created spiritual and material gold. This system called the tria prima or three hypostatical principles was developed primarily by Paracelsus, the father of Medicine in the 16th century. Salt stood for the principle of fixidity and uninflammability, and in a sense a mystical idea for the body of man to the alchemist.67

The union of opposites in alchemy can be compared with the Chinese Yin-Yang system of white pole in black vortex, and black pole in white vortex, which symbolized male and female; day and night, life and death, etc.68

PLATE 4. THE REPRESENTATION OF THE SULPHUR-MERCURY THEORY.
From Maier's Viridian Chemicum, 1619. Engraved by D. Stolcius.
4.5 THE FIRST KEY OF BASIL VALENTINE (Plate 5)

From M. Maier's Viridian Chymicum 1619. Engraved by D. Stolcius. (One of a series of twelve emblems illustrating the various stages of the Great Work).

This is an example of the rich allegory of the conjunction of opposites visualized by the adepts. The conjunction of opposites could only take place under favourable planetary conditions and when "that which was hidden should become manifest". The marriage of opposites was the central theme of both alchemists and occultists.

The cryptic instructions to the alchemist in this engraving include the purification of gold by fusing it three times with antimony, the alchemical lupus metallorum (or wolf of metals) seen in the crucible below the wolf. Lead is represented by the wooden-legged man on the right (holding a sythe) symbolizing the slow-moving planet Saturn.

The operator having been instructed to cast the King's body to a fierce wolf, which is immediately devoured, then burns the remaining pieces to ashes. It is by this process that the King is liberated which is repeated by the adept three times. At this stage of the operation the lion has devoured the wolf and having done this the adept is ready for the first stage of the Great Work.

PLATE 5. THE FIRST KEY OF BASIL VALENTINE.
From Maier's Viridian Chemicum 1619. Engraved by D. Stolcius.
In the lower right hand side of the engraving silver represented by the Queen is shown being purified by heating the metal with lead.

Fire is symbolized by the scythe and the purification of the King by three flowers. The colours of the peacock tail (or the various stages of the work) are symbolized by the fan.

The engraving therefore describes in alchemical terms the preparation of the 'proximate materials' in alchemy and their conjunction in the vase of Hermes, which is equivalent to the marriage of the King and Queen.71

Love and marriage helped the adept to reinforce the essential unity between macrocosm and microcosm; between forces in human beings and the forces of creation in the universe.

Even though all the powers of nature are used in alchemical studies and are illustrated by symbols and colours of minerals and planets, the human being always remains human throughout pictorial alchemy.72

4.6 AN EMBLEMATIC REPRESENTATION OF THE GREAT WORK
(Plate 6).

From M. Maier's Viridian Chymicum, Frankfurt, 1624.
Engraved by D. Stolcius.

In the 16th and 17th centuries the natural order of the cosmos to the Rosicrucians was directly linked to alchemy and the Qabala. Michael Maier's emblem was one of the diagrams employed to assist the student and adept in defining the relationship of the mind or transcendental principle with the material aspects of alchemy. 73

This symbolic representation in diagrammatic form was found in the writings of Basil Valentine in the 16th century and was often associated with the 'Emerald Table of Hermes'. 74

The Rosicrucians see the whole design as representative of the alchemist's intellect, since the mind is regarded as the strongest power of all known forces; the ultimate force which can penetrate the mysteries of the universe, as well as order and adapt nature through its application. 75

The symbols of the five planets exert their astrological influence on the feminine and masculine principles (sun and moon) in the upper part of the design. The moon is interpreted as being opposite to the sun as it is a reflector of sunlight and therefore an image of reversed polarity.

The central double circle is a reminder of the dual character of metals; the orb upon which it rests is a symbol for the philosopher's stone according to Read.\textsuperscript{76} The Rosicrucians interpret the orb or globe and cross as being the symbols of dominion which represents the feminine and masculine life forces.\textsuperscript{77}

The legend around the symbols reads "Visit the inward parts of the earth; by rectifying thou shalt find the hidden stone".\textsuperscript{78} The capital letters spell out VITRIOL, a shiny crystalline substance used in the Great Work.

The Lion represents the fixed principle sulphur (lower right) whilst the double-headed eagle the volatile mercury (lower left) linked with the Lion and Eagle symbols is a seven-pointed star, indicating the seven metals in the earth below the seven celestial bodies above (lower centre).\textsuperscript{79} To the Rosicrucians the star is representative of mans work, since this figure is man-made and requires measuring tools to construct.\textsuperscript{80}

In the left lower circle the alchemists interpret this (in the Secret Symbols of the Rosicrucians) as being the earth, where all celestial influences descend from above.\textsuperscript{81}

\textsuperscript{76} Read, J. 1947, pp. 19-20.
\textsuperscript{77} Betournay, T.P. 1977, p. 11.
\textsuperscript{78} Read, J. 1947, p. 20.
\textsuperscript{79} Read, J. 1947, p. 20.
\textsuperscript{80} Betournay, T.P. 1977, p. 12.
\textsuperscript{81} Betournay, T.P. 1977, p. 12.
Read believes this symbol indicates that seven metals arise from two seeds, or the male and female principles. 82

The hands which are often found on moon talismans, are generally accepted as being the hands of God, who gives his blessing to the Great Work. The chalice, a symbol of creative imagination which derives its energy from the sun, is placed in the upper (celestial) zone of the circle. 83

To the right of the star are seen two hoops which may be associated with the armillary sphere of Hermes or the Gnostic symbol of the ouroboros, the symbol of rejuvenation, the universe and eternity.

Whilst the outer square is suggestive of the four elements, 84 the encompassing circle perhaps represents the cosmos in relation to divine powers. The circle being an expression of wholeness and totality. 85

This type of illustration varied with different artists, since they were forced to seek novelty by means of slight alterations in their modes of expressing the same theme. Emblematic drawings like this often give the impression that they have been constructed from 'Standard parts'. 86

86. Read, J. 1936, p. 238.
4.7 JAN DE VRIES - THE ORATORY AND THE LABORATORY 1609

(Plate 7) Drawing executed after Heinrich Khunrath's design and published in Khunrath's Amphitheatrun Sapientiae Aeternae.

Khunrath was acclaimed as a Hermetic mystic amongst other titles,\(^{87}\) "a hierophant of the psychic side of the magnus opus".\(^{88}\)

This circular design can be described as being a mixture of poetry and reality, impregnated with humanity and mysticism. Like Maier's Emblematic Representation of the Great Work there is not one impure or arbitrary element present in the drawing to distract from the real meaning of alchemy.

The extreme type of spiritual alchemist is depicted in this drawing, designed in a circular format which recalls some of the work by the German engraver Johannes Theodorus De Bry. The composition is both static and formal and contains a rich repertoire of mystical and descriptive alchemical material. Mystical and explanatory inscriptions in Hebrew and in Latin are contained in Khunrath's oratory-laboratory,\(^{89}\) which he calls a 'Laboratorium'. Khunrath intended to express "that the stone is a blessing to be obtained only from God himself; and that the efforts of the

\(^{87}\) Khunrath was also known as an occultist, theosophist and cabbalist.
\(^{88}\) Read, J. 1947, p. 69.
\(^{89}\) Read, J. 1947, pp. 70-71.
adept will only be crowned with success if he prays to the creator of all things to lend his aid to a work which is a minute imitation of the creation".90

In the right-hand half of the composition the laboratory is represented in an idealized form, expressive of the environment necessary for the spiritual alchemist or religious mystic to operate. The left-hand half of the design consists of the Oratorium where a tabenacle is the dominant feature. Khunrath, himself is shown praying to God before a tent, (which is symbolical of the Israelites in the desert) with eyes fixed on a pentagram, the badge of the Pythagoreans.91

Solomon's seal shines on the table; scale, musical instruments and pentagram stress importance attached to music, harmony, number and proportion in the Great Work. An attached Latin inscription explains that sacred music will disperse the evil spirits and alchemic melancholia surrounding the work. The seven-pointed stellate lamp hanging from the ceiling symbolizes the seven planetary metals.92

An inscription on the alchemical hearth bears the message 'Ratio' (reason) and experience; a small still and athanor are inscribed with the words 'Festina lente' (hasten quickly); the alchemical hearth which is opposite

90. Grillot de Givry, 1931, p. 393.
the tabernacle bears the name of the Lord as well as a Latin inscription on a fold of drape, 'Hoc hoc agentibus nobis aderit ipse Deus' (when we attend strictly to our work, God himself will help us): a Latin inscription over the doorway in the central background pronounces "dormiens vigilia" (while sleeping watch).93

Khunrath's choice of a circular format is also significant in terms of alchemical interpretation on a larger scale.

The circle to Jung, symbolizes the cosmos as a whole or the processes of nature. The mandala form can also represent the subconscious and superconscious aspects of nature. Alchemy itself, defines the levels of consciousness as an on-going stage of total awareness.94 The mandala form seen as a universal organizing principle can be observed in the alchemical symbol, quadratura circuli (the squaring of the circle) a true mandala according to Jung. The mandala in alchemy signifies the synthesis of the four elements.95

CHAPTER FIVE

GERMANY

5.1 ALBRECHT DÜRER (1471-1528) MELANCHOLIA I (1514)

(Plate 8)

In Germany at the beginning of the 16th century, alchemy formed part of the cultural background of Dürer.

The engraving "Melancholia" with its engraved numeral title I was intended to be an illustration of one of four temperaments, Melancholia, Phlegmatic, Choleric and Sanguine. 96

The alchemists were inspired by the dark side of nature as well as the dream and spirit on earth. The mode of expression was dream-like and unreal in both written documents and in pictorial representation. 97 In "Melancholia" the alchemist is portrayed symbolically in a bewildering disorder suggesting an incompleteness of task, and an unhappy state of genius.

Dürer's engraving contains a rich repertoire of alchemical symbols. For example, number four which was a mystical number in alchemy is represented in the magic square

96. Read, J. 1947, pp. 22; 58.
(upper right) and connected with the four temperaments and four humours of the body. The four outstanding colours of the body were indirectly connected with the four temperaments.

<table>
<thead>
<tr>
<th>Black bile (earth)</th>
<th>Black</th>
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<tbody>
<tr>
<td>Phlegm (water)</td>
<td>White</td>
</tr>
<tr>
<td>Bile (air)</td>
<td>Citrine</td>
</tr>
<tr>
<td>Blood (fire)</td>
<td>Red</td>
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The magic square, polyhedron, compasses and sphere are symbolical of the Pythagorean insistence on number and form in the cosmos.\textsuperscript{98} The sphere can also be interpreted as being the symbol of the psyche, a concept first described by Plato.\textsuperscript{99}

Geber, the famous Muslim alchemist in the 8th century, A.D. wrote many important treatises on alchemy, mathematics, music and astronomy. He formulated a theory, which was Aristolean based, on the four metals and their four corresponding natures (hot, dry, cold and wet), which was made into a table based on the magic square. The letters of the Arabic words for metals were formulated by relating them to a number, which when added diagonally, horizontally and vertically came to fifteen.\textsuperscript{100}

Numbers to the Pythagoreans were regarded as having divine properties. The numbers four and ten were worshipped

\textsuperscript{98} Read, J. 1947, p. 58.
\textsuperscript{100} Ellis, K. 1974, p. 23.
as divinities by the Pythagoreans in the 6th century, B.C.\textsuperscript{101} The alchemical dictum originally borrowed from "The wisdom of Solomon" "thou hast ordered all things in measure and number and weight"\textsuperscript{102} is suggested in "Melancholia" by the hour-glass, balance (the seeker weighs the opposed elements of fire and water) and a pair of compasses. Therefore, Pythagorean and Platonic conceptions formed an important constituent of alchemical doctrine.

Other alchemical symbolism in Dürer's engraving include the rainbow, which was the symbol for the colours seen in sequence during the alchemical process (or in the preparation of the philosopher's stone). Sir George Ripley's highly allegorical writings in the 15th century describe the rainbow or peacock's tail at the time of the completion of the Great Work.\textsuperscript{103}

The Ladder symbolizes the seven metals and the seven heavenly bodies (gold being the top rung and tin the seventh rung). The crucible is portrayed being the most familiar piece of apparatus in an alchemist's laboratory. Fire is symbolized by penetrating, wounding and cutting implements (saw, nails, plane and hammer). The dog represents the 'alchemical fire' or imagination, and sophic sulphur.\textsuperscript{104}

\textsuperscript{101} Jung, C.G. 1964, pp. 40; 42. 
\textsuperscript{102} Read, J. 1947, p. 59. 
\textsuperscript{103} Ellis, K. 1974, p. 26. 
\textsuperscript{104} Read, J. 1947, p. 59.
Melancholy and Saturnine symbolism are the dominating themes in Dürrer's design. Melancholy was regarded as a state in which students and seekers of knowledge experienced. The blackened face of the winged figure is probably associated with lead, the heavy base metal joined in alchemy with Saturn. Measurement is one of the elements of Saturnine mysticism symbolized by the compasses, balance and hour-glass. The stone of Saturn, symbolized by the polyhedron (representing lead) could also be interpreted as the philosopher's stone. 105

The old man traditionally symbolized Saturn in most alchemical illustrations (for example, Salomon Trismosin's Splendor Solis 1582) but not in Dürrer's case. There are no children at play (the Ludus Puerorum motif) at the feet of this brooding figure, which could be interpreted as "an embodiment of the Alchemical searcher after the Stone, or in a wider sense, as the seeker after wisdom in a mood of temporary defeat". 106 The tolling bell, the morose little putto and dog all express gloom and lassitude. The black cat (night) and the winged genius of melancholia also heighten the depressed mood. Keys, a light giving lamp express the idea that "knowledge comes, but wisdom lingers". 107

"Melancholia" is ranked amongst Dürrer's noblest conceptions. His intense intellect and inquiring mind make his art more cerebral than emotionally motivated. Dürrer's companions included some of the most thoughtful and learned

men of the day (for example, Luther and Melanchthon) exemplified by the daring and speculative philosophy expressed in "Melancholia".

Lubke wrote of Dürer, "In creative richness of fantasy, in extensive power of thought and in moral energy and earnest striving, Dürer must be called the first of all German masters." 108

5.2 THE RAPE OF EUROPA, APOLLO: ALCHEMIST - THREE LIONS HEADS about 1495, Vienna Alberta.

Characteristic of Abrecht Dürer this drawing embodies many ideas. On one hand Dürer emulates elaborate Italian models derived from Greek mythology, and on the other hand he portrays some aspects of alchemy.

The Apollo is a direct copy of the Praxitelian Eros109 transformed by Dürer into Quattrocento garb and 'fluttering' drapery.110 The alchemist however, is classically robed, having the bearing of a philosopher. In alchemical terms the Apollo symbol is synonymous with the sun Apollon and therefore gold. The Greek name for Apollo means 'from the depths of the Lion' therefore, by using the Apollo symbol in his drawing Dürer may have been intentionally conveying an alchemical concept.

109. A replica of Eros is still preserved in Venice.
It is also interesting that Dürer's direct reference to alchemy is in the depiction of a three-headed lion and corresponds to the fixed element or sulphur. Similarly, gold itself has been called the King or 'lion' of metals. Also, the Lion, being opposite to the spiritual component or eagle, symbolizes the earthly and male component in alchemy.

Dürer did not neglect the spiritual aspect of alchemy in this drawing, since he included a skull and a boiling cauldron. The boiling cauldron in alchemy can be interpreted as the symbol for 'forces' (hence the boiling nature), germination and transmutation. The inscription on the cauldron is a well known term in alchemy and reads with abbreviations expanded "Lutum sapientiae" (putty of wisdom).

The skull which is also a symbol of the receptacle of forces contrasts with the open cauldron which is concerned with the baser natural forces in the universe. The skull also symbolizes the higher spiritual aspects of transmutation and growth.

Alchemical art embodies two types of thought: abstract and conscious thinking. Dürer was able to convey many alchemical concepts in The Rape of Europa, Apollo; Alchemist - Three Lions Head incorporating hermetic symbolism into an essentially Italian Renaissance form. Dürer's inquiring mind led him beyond his Lutheran convictions and humanism into areas of arcane knowledge.

112. Panofsky, E. 1945, p. 93.
5.3 HANS WEIDITZ - AN ALCHEMIST AND HIS ASSISTANT AT WORK WOOD-CUT 1520 (Plate 10).

In An Alchemist and His Assistant at Work Weiditz, an illustrator of the Augsburg School portrays Alchemy associated with melancholia. The interior is a typical medieval laboratory which is laced with scepticism as to the validity of alchemical experimentation. The equipment (bellows, hearth, tongs, pinces and hammers) represents the tools used in a smithy's workshop rather than laboratory apparatus. The most complex device is a still.

This wood-cut illustrates the confusion and lack of factual information as to the true nature of alchemy. It is a satirical comment on the subject which is steeped in cynicism.

The Alchemist is portrayed as an ignorant fool, who is tattily clad and stares vacantly into a furnace with tongs in hand. His assistant, equally stupid scratches his head in confusion. Tools and pieces of apparatus are arbitrarily scattered about the room with apparently little meaning as to the practical application of them in relation to alchemy.

PLATE 10. AN ALCHEMIST AND HIS ASSISTANT AT WORK.
6.1 PIETER BRUEGHEL THE ELDER (1525 - 1569)

Brueghel is regarded by many historians as being the finest painter of peasant humanism, who had an extraordinary gift of synthesis and of capturing changing passages of time.

Like Teniers, Brueghel was fascinated by the mysterious world of the alchemist as well as the nightmarish fantasies of the damned. His interest in the occult is evident in his portrayal of witches and magicians in St. James before the Magician, Surrounded by Demons 1565, and Demons Tearing the Magician in Pieces at the Order of St. James 1565.

Two prints engraved by Cock, The Last Judgement 1558 and The Just Delivered from Limbo reveals Brueghel's fascination for demonic forms and hybrid creatures after the manner of Bosch.116

The character of Brueghel's pictures often moved in the direction of oddness and caricature. The ever present irony and moral allegory evident in his paintings, coupled with Medieval theological concepts of monsters from the world of sulphur and fire, of wild sabbaths and of alchemy,

was a general reaction against the obscurity of mystical phenomena in the Middle Ages. 117

*De Magere Keucken* and *The Alchemist at Work* are alchemical pictures imbued with moralistic overtones by an artist who questions the validity of alchemy.

**THE ALCHEMIST AT WORK 1558 (Plate 11).**

A painting which has become widely known through the engravings made of it by Hieronimus Cock (1510-70). Later retouched by Theodore Galle 17 1/2 x 12" (44.5 x 33.5 cm) it reproduces the original painting in reverse.

The Alchemist depicted in Cock's engraving is portrayed as a curious aloof and untidy figure working in an impoverished environment. The room serves a dual purpose, that of a laboratory and kitchen. The raw materials necessary for cooking have been replaced by utensils and receptacles for transmuting metals. 118 This scene certainly does not depict the great moment when gold has been produced from base metals, but, instead a depressed view of the self-indulgent puffer (or pseudo-alchemist) searching in vain for the unattainable, whilst his family prepare to leave for the poor-house, innocent victims of a senseless quest, involving their material possessions. 119

117. Courthion, P. 1958, pp. 35; 38,
118. Read, J. 1947, pp. 63-64.
Brueghel therefore portrays a biting satirical picture. The spectator's eye is drawn from the stupidity and foolishness of the puffer in his laboratory in the foreground, to the grave situation of the puffer's family in the background. As with every work executed by Brueghel the spectator is led on sequence by sequence, to take part in separate events. The puffer's wife is shown attempting to shake out the last coins from a purse in the make-shift laboratory whilst the children rummage for food in empty cupboards. The inset picture of the departing family, with its strong moral warning, has the appearance of a view through a window which is surrounded by pathetic acts and degradation which preceded the final drama.

A satirical French verse attached to the verse invites the viewer "to gaze upon this dolt, who in his fruitless quest distils away his goods, his senses, and his children's bread". The verse and picture are therefore strongly directed as moral warnings against the arbitrary operations of the puffer.

Lighter notes introduced to what may appear as an extremely dismal scene include a child wearing an inverted pot over his head in an act of fantasy, and an apathetic assistant feebly working a pair of bellows, obviously under protest.

120. Courthion, P. 1958, p. 41.
121. Read, J. 1947, p. 64.
A more positive and slightly more enthusiastic element in an otherwise negative gloom is a robed acolyte, who appears to be proclaiming some passage from an alchemical tome, which lies open on a desk before him.

Brueghel's description of a 16th century laboratory contains valuable information concerning equipment. The puffers were preoccupied with the pursuit of gold rather than the pursuit of wisdom. This gave rise to a multitude of complicated and extravagant apparatus, which often caused mockery and caricature. In Mylius Basilica Philosophica there is a catalogue of puffer's equipment. However, Brueghel's accurate observation of apparatus seems to have been made at first hand, and conform to the literary descriptions made by Paracelsus. Crucibles are shown to be the most common pieces of apparatus employed; there are also stills, filters, sieves, tongs, pots, pestles and mortars, hand-bellows, a collection of glass flasks and furnaces for boiling water. The scales and hour-glass point to incipient measurement and quantitative work. It is in this regard that Brueghel's study is important in helping to illuminate the alchemist's work.

6.2 DAVID TENIERS THE YOUNGER (1610 - 1694)

Teniers painted nearly every kind of subject. Smith's catalogue enumerates nearly seven hundred paintings including ten alchemical pictures.

*An Alchemist in his Laboratory* (Berlin Gallery)
*The Alchemist* (Museum, Hague)
*Alchemist in His Laboratory* (Bridgewater Gallery, London)
*The Alchemist* (Buckingham Palace, London)
*The Alchemist* (The Prado, Madrid)
*The Alchemist* (A Self-Portrait) Pinakothek, Munich.
*Le Grimoire de Hypocrate* (The Black Book Hippocrates)
*Le Chimiste* (Fisher Collection Pittsburgh, Pennsylvania) 1648
*Cupids in the Laboratory*
*The Pleasure of Fools* 125

Teniers technique is incisive and dexterous, and his colours are characterized by transparent cool harmonies with highly polished detailings, which were distinguished by light illuminating the interior from a window. 126

Like Brueghel Teniers was fascinated by the occult, witchcraft and alchemy. For example, in the *Evocation of Demons* engraved by Petrini after a picture by Teniers, a witch is portrayed surrounded by fantastic demons which she has materialized in her rituals. An ardent follower

of the divinatory acts Teniers portrayed his wife\textsuperscript{127} having her fortune told, engraved by Surugue in 1750. In another work, \textit{Departure for the Sabbath} engraved by Aliamet an old witch prepares a vile brew in the presence of a novice witch, who tends a hearth. The magic circle drawn on the floor, skull, ritual dagger, broom and lamp are as carefully documented as the specialized apparatus found in Teniers' alchemical pictures.\textsuperscript{128}

Brueghel the Elder, Stradanus and Teniers were all genre painters in the 17th century who depicted peasant life in quaint environments with a particular interest directed towards unusual characters and odd situations. This interest in the odd and unusual may explain why they were inspired to paint the alchemist, who was regarded as a strange and eccentric individual.\textsuperscript{129}

Teniers who in the words of John Read was "Alchemy's artist par excellence"\textsuperscript{130} was fascinated by the Alchemist and his mysterious operations. Teniers pictures depict various interpretations of the alchemist from the cruel and satirical mockery of the lowest form of puffer in \textit{The Pleasure of Fools} to the operations of the intelligent and philosophical practitioner in \textit{Le Chimiste} and \textit{The Chemist His Assistant and a Pryer}.

\textsuperscript{128} Grillot De Givry, 1973, pp. 91; 275; 66.
\textsuperscript{129} Read, J. 1947, pp. 73-74.
SELF PORTRAIT (Plate 12)

Teniers portrays himself as a serious and philosophical alchemist dressed in the traditional cap and cloak. He looks directly out of the picture with flask in hand whilst an assistant works seduously in the background, fanning the hearth. The interior is a typically equipped laboratory with still, alembics, flasks and a hanging salamander. The element of caricature is absent and the scene is one of calm order.

LE GRIMOIRE D'HYPOCRATE OR THE BLACK BOOK OF HIPPOCRATES (Plate 13) engraved by Pierre Basan (Berlin Gallery)

The central figure is shown holding a book with one hand and stirring with the other. Four assistants work around the hearth in the background, whilst a contented dog watches a mouse. Everything is neatly arranged and the laboratory creates an impression of efficiency and purposefulness. The common alchemical features of hearth, bellows and suspended fish are present. 131

AN ALCHEMIST IN HIS LABORATORY (Dresden Collection) engraved by C. Straub (Plate 14) is another variation on the alchemical theme by Teniers. Many of the same devices used in Le Grimoire d' Hypocrate are employed but, with additional apparatus and curios included in the composition. The still, on the floor with independent firing and water-cooled helm, was a common piece of apparatus in Teniers' 131. Read, J. 1947, p. 77.
PLATE 12. SELF PORTRAIT. DAVID TENIERS.
PLATE 14. AN ALCHEMIST IN HIS LABORATORY.
David Teniers. Engraved by C. Straub.
Dresden Collection.
pictures. The cooling jacket on the still, resembled a moorish turban and was popularly called the 'Moors Head'.

There is a wealth of smaller accessories depicted in this painting which include an hour-glass, suspended fish, three animal skulls and dried poppy heads. The standard laboratory equipment (hearth, bellows, crucible, tongs, vessels and two-beaked alembic) are present in an interior which is both larger and more elaborately equipped than the one portrayed in Le Grimoire d' Hypocrate.\textsuperscript{132} Five assistants work in the background, whilst a figure peers in from a small window, a feature which is also found in Le Chimiste.

The Alchemist in his Laboratory, Le Chimiste and Le Grimoire d' Hypocrate contrast to the alchemical works of Brueghel, Weiditz, Steen and Wijck (Le Menage du Chimiste) since they portray a non-cynical representation of the alchemist in a non-chaotic environment. Although Teniers in The Pleasure of Fools, portrayed the puffer in biting sarcasm, it was not a social comment directed to the true adept, who the artist obviously respected.

\textbf{LE CHIMISTE 21" x 16" 1648 (Fisher Collection) (Plate 15)}

The alchemist is depicted quietly working in his laboratory, without domestic distractions. He is illuminated by a shaft of light from an open window, working a pair of bellows at the hearth.

\textsuperscript{132} Read, J. 1947, pp. 77-78.
PLATE 12. LE CHIMISSE 1648. DAVID TENIERS.
The ordered laboratory is neither a converted kitchen or blacksmith's shop but a practical room devoid of mystical overtones equipped specially for the practice of alchemy. There are no magical or mystical inscriptions on the walls, anthanors or magic objects present. The still, not the crucible reigns supreme.

Characteristic alchemical features include a suspended fish (which was sometimes replaced by a salamander or crocodile) a skull and a charcoal bin a laboratory which creates the impression of efficiency and competence. 133

6.3 CUPIDS IN THE LABORATORY (Ludus puerorum) 1614 (Plate 16).

The Ludus puerorum or child's play motif in alchemy signifies that after the primitive materials of the stone have been resolved the rest of the process is merely 'child's play' or 'labour fit for women'. This motif comes to light in the 16th century especially in the work the German painter Lucas Cranach, who like Dürer although to some extent influenced by alchemical concepts and symbols left no pictorial record of the actual alchemist practising his art.

133. Read, J. 1947, pp. 74-75.
PLATE 16. CUPIDS IN THE LABORATORY 1614. DAVID TENIERS.
The most interesting feature of Teniers painting is undoubtedly the shining and suspended sphere. This element which is open to many interpretations corresponds to the hoop, sphere and grindstone in the work of Dürer and Cranach.¹³⁴

John Read suggests that the hovering bubble or sphere in place of a fish or salamander probably indicates that the great work is indeed child's play to these alchemical cupids. One cupid represents the famulus since he is engaged in placing coins into a purse which lies on the table, whilst the remaining two attend to the laboratory chore of attending to the earth.

The sphere in Dürer's "Melancholia" is the Pythagorean symbol for number and form in the universe. In Cranach's painting the sphere represents change and regeneration or the concept of the ouroboros.¹³⁵ The snake devouring its own tail represents the eternal cyclic nature of the cosmos.¹³⁶

If the sphere is to be viewed in the light of modern day psychology it could be interpreted as being made of crystal and therefore symbolize the union of spirit and matter or extreme opposites. M.L. von Franz a contemporary of Carl Jung, believes that a crystal sphere although dead and inanimate, intuitively evokes a feeling of ordered and spiritual principles.¹³⁷ Roundness or the mandala motif is also generally accepted as being the symbol for natural

wholeness on the unconscious plane, whilst quadrangular forms, such as the polyhedron in Dürer's Melancholia are realizations of this wholeness on the conscious plane. 138

Also open to discussion in the alchemical interpretation of Teniers painting is the significance of the cupids in relation to the Great Work. The cupid could be a symbol for vitriol (acids) or the chemical Eros. 139

The homunculus or a child of the mind was a theme borrowed by the Alchemists from the Cabbalists, who like Paracelsus believed it was possible to manufacture human beings by artificial means. The homulus formed inside the Philosopher's vase and assumed various forms, sometimes as a child or cupid, and sometimes as a Manneken Pis, a theme of fecundity symbolized by a child urinating. 140

Cupids feature in the 15th century manuscripts by Johannes Andreae (British Museum, London, Sloane 2560) depicted in the microcosmic world of the Aludel or Philosopher's egg. The series of illuminated paintings illustrate the various stages of transmutation within the vase of Hermes. One painting in the early stage of the work contains a child in the upper zone of the egg at the time of solution, which is symbolized by the King and Queen linking arms in an act of eliminating impurities from one another. In another painting as the alchemical process develops the child has been transformed into a cupid at the stage of conjunction or perfect solution. Finally,

towards the end of the process the cupid occupies the whole area of the egg and symbolizes Mercury, the volatile principle about to ascend to the celestial heavens and once purified returns to earth to be made one with the world.141

Teniers' use of the sphere could also be interpreted as an environment chamber, which provided a world for mythological and spirit beings.

Paracelsus, who was a central figure in the Renaissance put forward such a theory. Paracelsus is best known for his revival of medicine and alchemy and his quest for an exilir of life called iatro-chemistry or medico-chemistry which flourished until the end of the 17th century.142 Paracelsus is credited with giving instructions on how to construct an "environment chamber", a glass globe which when filled with water, air and earth provided a microcosm for slyphs, gnomes and water nymphs. These creatures according to Paracelsus could thrive in an environment chamber as they came from other planets which were much hotter than the earth.143 "Let the sun's fire be drawn by concave mirrors into a glass globe; there will form therein a solar powder which will purify itself of other elements".144

141. Klossowski de Rola, S. 1973, pp. 11; 57; 118.
144. Caron and Hutin, 1961; p. 46.
CHAPTER SEVEN

HOLLAND

7.1 STEEN (Jan Harickz Steen) 1629-1679 (Plate 17)

Steen like his Dutch contemporary Adriaen van Ostade, who influenced Steen's work, produced many paintings depicting peasant life. Studies of village merriment, schools, tavern scenes, weddings and pictures of dentists and alchemists make up Steen's genre collection.

"The Alchemist" (Fig. 23) is essentially a study of peasants who appear more like rough journeymen puffers than learned philosophers. There is no hint of a spiritual awakening or an intellectual pursuit so evident in the earlier engravings of de Bry (Atalanta Fugiens 1618) or Jan de Vries (The Oratory and the Laboratory 1609).

In Steen's painting the emphasis is on realism. He portrays the harsh reality of degradation; of a weeping wife and sullen child; an empty purse lying on the floor. Like Wijck's Le Menage du Chimiste the unhappy domestic situation is eminent. The puffer is shown dropping his last coin into the crucible, and at the same time sneering at his wife in an act of defiance.

Steen's painting reveals little information about the puffer's operation or laboratory equipment. The painting is similar in moral content to Brueghel's An Alchemist at Work a century before, but without the accurate represent-
ation of alchemical apparatus. A sheet of paper pinned
to the chimney piece ironically bears the heading
"Teophrastus Paracelsus".145

7.2 THOMAS WIJCK (B. Berewijck 1616 d. 1677)

Wijck like his Dutch contemporaries painted scenes from peasant life. He was particularly fond of painting the alchemist in a chaotic environment which varied little in his many renditions of the subject.

In contrast to Teniers paintings, Wijck's studies inspire little or no confidence in the Alchemist as a practical worker. The general disorder of broken apparatus, masses of equipment, papers and books which litter the laboratory, typify the general view that alchemy was no more than a jumbled confusion of fact and fiction, with old eccentric madmen trying to make gold. This view exists to some extent today, but is weakened by the fact that transmutation of metals is possible by using a strong focusing synchrotron.146 Traditional alchemy is founded on certain basic principles that cannot be varied or changed. Alchemy is not based on scientific theories which are continuously open to question.147

LE MENAGE DU CHEMISTE (engraved by Pierre Chenu 1718-1780; and issued by Basan) 49.8 x 35.6 cm (Plate 18).

Basan attributed the original composition to Wijck and the design was later engraved by Chenu.

This picture differs to Wijck's other compositions in that the alchemist is not a theorist but practitioner of the art. The active operator clad in working clothes is a stocky peasant type after the manner of Brueghel. He tends the hearth with customary fixed bellows.

The true adept would have called Wijck's representation of an alchemist a "Puffer", a word used to describe one who frantically uses the bellows and is motivated solely by material rewards. Puffers operated without studying the true nature of alchemy, and in the process invariably blew themselves up or were poisoned by noxious fumes in their misguided experimentations.

Wijck's treatment of alchemy is similar in moral warning and spirit to Van Ostade, Steen and Brueghel. The overall theme of Le Menage du Chimiste expresses the Puffer's fruitless and selfish quest at the expense of his family. As in Brueghel's Alchemist at Work the puffer's family witness the erosion of their happiness and security in a poverty-stricken environment. Two of the puffer's children rummage through an empty food cupboard, and a
Engraved by Pierre Chenu (1718-1780).

neglected wife surveys the dismal scene.  

Puffers were uninitiated people who ignored the warnings so frequently cited in alchemical texts, that true alchemy (which was disguised by Hermetic symbolism and esoteric recipes for producing gold) could not be taken too literally, and that the adept would only succeed when selfless humility and spiritual 'oneness' with the creator was attained. Only then would he "transmute the obscurity of ignorance into the light of wisdom". 

L'ALCHYMISTE EN MEDITATION (Engraved by Victor Texier, 1777-1864, after one of Wijck's paintings). The original is 25.8 cm wide (Plate 19).

The Alchemist belonged to no school and in principle worked in solitude, preoccupied with obscurities and speculations.

In the 16th and 17th centuries true alchemists worked alone and in secrecy for fear of victimization from uninformed people, and torture and imprisonment from the local ruler. Monachs and Heads of State have been notorious through history in trying to extract the secret of transmutation from practising alchemists for their own gain. The adept meditated on previous works by other alchemists.

148. Read, J. 1947, p. 84.
finding there a new mythology, which although basically Christian, was labelled Gnosticism by early Church leaders.151

Wijck's alchemist is portrayed as somewhat of a recluse, a theorist and scholar rather than a practical exponent of the art; an amateur rather than a professional. The alchemist wears a type of doctor's cap and long loose robe, the traditional garment for a labourer of the fire. He is seated at a desk surrounded by books, manuscripts, crumpled and torn pieces of paper, most of which lie scattered about the floor.

Characteristics peculiar to Wijck's painting include a bird-cage situated near a window, a large globe of the world, and an alligator hanging from the ceiling.

A heavy drape hangs from a curtain rod and below rags and garments are strewn about the room, together with an assortment of trunks, pots, oak casks and other receptacles. The traditional hearth with its fixed bellows and overhanging chimney opening seen in Tenier's laboratories is deleted from Wijck's interior. The room is more reminiscent of a study than a laboratory.152

152. Read, J. 1947, pp. 81-82.
7.3 REMBRANDT VAN RIJN (1606-1669) (Plate 20)

DOCTOR FAUSTUS, an etching executed by Rembrandt in 1648 or 1651 at a time when the artist was beset with domestic and financial worries,\textsuperscript{153} comes close to an alchemical subject.

Rembrandt's etching demonstrates that in art as well as in literature, the astrologer and the magician had something in common with the alchemist, since all three pursued a mysterious path which was partly based on both fact and fiction.\textsuperscript{154} The alchemist, magician and astrologer all followed the quest in search for a higher reality.

In Doctor Faustus the apparition of a radiating cabbalistic sun presents a strange vision to the old scholar who is engaged in some type of magical experiment. During the seventeenth century scholars were fascinated by the secret knowledge of alchemy and astrology as well as by the cryptic philosophy of the cabbala.\textsuperscript{155} The name cabbala is derived from the Hebrew gibbel, "to receive," and signifies knowledge handed down by tradition.

A magic mirror is held up to the Cabbalistic disc, where a hand points to the secret re-ordering of the characters around the inner and outer circumferences.\textsuperscript{156}

\textsuperscript{153} Bryan, M. 1964, p. 237.
\textsuperscript{154} Read, J. 1947, pp. 71-72.
\textsuperscript{155} Wilson, C. 1975, p. 63.
\textsuperscript{156} Grillot De Givry, E. 1973, p. 206.
The cryptic words which have yet to be logically deciphered read "ADAM + DAGERAM: AMRTET + ALGAR + ALGASTNA +++" 157

7.4 ADRIAN VAN OSTADE

The Alchemist 1661, National Gallery, London. A contemporary of Teniers, Adrian van Ostade (Plate 21) was a prolific painter who executed over four hundred paintings, including a large number of water-colours and pencil drawings. 158

The Alchemist (Plate 21) differs from Teniers' interiors in that it depicts a total living and working environment. Teniers' Laboratories are relatively ordered and prosperous where as van Ostade's Laboratory is both poverty-stricken and disordered. The large room contains many pieces of alchemical apparatus and household utensils. The puffer and his family are dwarfed by the vast interior; close by the puffer an inscription reads "oleum et operam perdis" 59 (he has lost both his oil and his labour). Van Ostade's depiction of an alchemist therefore expressed the same sentiment as in Wijcks Le Menage du Chemiste, Jan Steen's The Alchemist and Brueghels An Alchemist at Work.

CHAPTER EIGHT

SPAIN

A SPANISH ALCHEMIST PAINTING - Artist unknown, dating probably the first half of the 17th century. (38 x 28") Original in St. Andrews Alchemical Collection (Plate 22).

An essentially classical composition, this painting was discovered in a dealer's shop in 1947. When restored the picture revealed a figure with a wooden-leg in the upper part of the canvas, a feature which made it a probable alchemical subject. The portrayal of laborants and their apparatus also strengthened the alchemical nature of this work.

The figure with a wooden-leg can be interpreted as a symbol for Saturn (lead) whilst the accompanying classically draped figure wearing a crown is Luna (silver) as in the Ninth Key of Basilius. Luna, the female element of the work represents silver and passivity and is opposite to the active power of Sol, the male element. The moon symbolized to the alchemists change in manifesting and initiating new things on earth. Luna could appear as a figure on earth or a gruesome entity which devoured the dead.160

The prevalence of traditional Flemish and Dutch alchemical pictures, firmly established by the 17th century contrasts markedly to the Spanish and Italian paintings of the same subject.

In the Spanish painting, the interior is not explicitly that of a laboratory. The room is dark, and light streaming from an arched doorway in the background illuminates twenty-nine people engaged in various activities of reading, practising and contemplating the alchemical art. The laborants and the nature of their apparatus differs from the Dutch and Flemish Schools in relation to dress and environment. The turban-like head-gear worn by the workers and their generally swathy appearance impart a Moorish resemblance in some of the figures. The laboratory is not crowded with apparatus and manuscripts in the manner of Dutch interiors, and the equipment being used is relatively sparse and simple. There is also an absence of moral warnings and earthy domesticity evident in the paintings from the Low Countries. 161

Therefore, the attire of the laborants, the nature of their equipment and method of work differs, coupled with the portrayal of separate groups of people involved in separate operations of the Great Work. The characteristic lone alchemist absorbed in the total study of alchemy is also absent.

Alchemical features not mentioned so far in this unknown Spanish painting include two furnaces which are shown to the left of the picture, which illuminate two small groups of people tending to them. In the bottom righthand corner of the painting there is a collection of alchemical apparatus (retorts, flasks, bowls and pestle and mortar). Two central figures on the righthand side of the composition situated around a long table transfer a bright red substance (probably cinnabar) from one retort to another. The red substance which appeared at the conclusion of the main work was regarded by the alchemist as the Philosopher's stone, grand elixir, red lion and 'our King' amongst other titles.\textsuperscript{162} A central figure holds a staff, his gesture with left hand raised is reminiscent of Christ and the resurrection, which in alchemical terms is equivalent to the death of the metals and their transformation with the philosopher's stone.\textsuperscript{163} Third from the left in the foreground a figure holds a bunch of wheat heads in one hand whilst tending the furnace with the other hand. In alchemy a sheaf of grain typifies the vital principle.\textsuperscript{164} A sheaf of wheat is held by a partly clad figure kneeling in front of the table, the alchemical significance being that metal could be submitted to putrefaction or mortification by heating it in the air, the calx which resulted could be resurrected by further heating it with wheat.\textsuperscript{165} Two more figures are seen pouring liquid into a bowl, which was perhaps a stage in the work.

Twelve more figures are assembled around a table where the

\textsuperscript{162} Silberer, H. 1917, p. 126.
\textsuperscript{163} Taylor, R. 1951, p. 152.
\textsuperscript{164} Read, J. 1947, p. 66.
\textsuperscript{165} Read, J. 1947, pp. 13; 14.
Moorishly-clad chairman consults one of his five books. Finally, behind the chairman or principal alchemist, standing in an elevated recess, a worker holds a collection of assembled apparatus. 166

ITALY

9.1 ANTONIO TEMPESTA

THE IMMACULATE CONCEPTION (date unknown) inscribed by Tempesta, 230 x 175, pen, brown ink and wash over black chalk.

The Engraving executed during the Renaissance contains alchemical symbols which are combined with a traditional biblical subject. In alchemy, the Assumption of the Virgin was equated with the glorification of matter. The composition consists of a centrally placed Madonna and child flanked by two cupids. The symbol for Sol is placed below the left cupid and the symbol for Luna below the right cupid, which signified change and manifestations of new things on earth.

In the lower left hand corner a seven-headed dragon is placed. Alchemically, the 'wingless' dragon symbolizes the fixed element as distinct from 'winged' dragons which express the volatile element, and 'fighting' dragons which represent the state of putrefaction. Seven, which has long been considered a sacred number, relates to the seven planets and metals in alchemy, as well as the seven stages necessary to complete any cycle of transformation.
The biblical interpretation of a many-headed dragon is a negatively fearful apparition. In the words of Revelation (XII, 3). "And behold a great red dragon having seven heads and ten horns, and seven crowns upon his heads". 170

CHAPTER TEN

ITALIAN MANNERISM AND ALCHEMY

In Italy the origin and beginnings of Mannerism were associated with the art of the High Renaissance. The real school of Mannerism developed with Rosso, Pontormo and Parmigianino,\(^\text{171}\) the latter two artists being especially relevant when discussing alchemical art.

Like alchemy itself, Mannerist paintings emphasize the obscure, the ambiguous and the problematical. The principle of opposites so evident in alchemy is exemplified in those paintings where artists exaggerated the contradictions of life by either emphasizing or concealing them.\(^\text{172}\) The wit, surprise and paradox often given to simple things is of a type found in the most extravagant virtuosi of words and similes.\(^\text{173}\) For example, the mirror symbolized the Mannerist paradox between unreality and reality, truth and non-truth as well as a reflection of life directly.\(^\text{174}\) Parmigianino's \textit{Self Portrait in Convex Mirror} symbolized all these things. The mirror could also be viewed as an instrument of self-contemplation as well as an all-embracing reflection of the universe.\(^\text{175}\)

\(^{171}\) Hauser, A. 1965, pp. 178, 148.  
\(^{172}\) Hauser, A. 1965, p. 15.  
\(^{173}\) Hauser, A. 1965, p. 198.  
\(^{174}\) Hauser, A. 1965, p. 120.  
\(^{175}\) Cirlot, J. E. 1962, p. 211.
During the period of Mannerism the Hermetic philosophy of the alchemists held a special fascination for artists such as Parmigianino who sought out the ancient symbols and employed them in their paintings, seeking to enhance a deeper esoteric and poetic meaning to their work. Sometimes the images and symbols of alchemy were used purely for their aesthetic beauty. The *Atalanta Fugiens* emblems for example, excited the Mannerists not only for their fresh poetic symbols bathed in mystery and ambiguity, but satisfied a special desire for spiritual knowledge in the Mannerist. 176

The Mannerist personality and isolated life-style, his general alienation from the world and self-withdrawal is reminiscent of the alchemists' social position. 177 Both Mannerists and alchemists invariably led introverted and eccentric lives, devoting themselves solely to their art. Parmigianino's extroverted personality was said to have changed into a withdrawn and melancholic introvert when he became involved in alchemy. Rosso and Pontormo were obsessed with the thought of death most of their lives. Rosso committed suicide and Pontormo, who suffered from acute hypochondria, instilled into his paintings a deep sense of pathos and psychological tension.

10.1 PONTORMO

SUPPER AT EMMAUS (Plate 23) 1525, Florence, Uffizi.

The most interesting and noticeable feature in *Supper at Emmaus* is the eye enclosed in a triangle suspended above Christ's head. The triangular motif in its highest sense symbolizes the Christian Trinity which in alchemical terms was represented by salt, mercury and sulphur in one body.\(^\ \)\(^\text{178}\) Salt denoted the soul; mercury the body; sulphur the spirit. In the crucible the three symbols of the alchemists ingredients correctly united formed the philosopher's stone.\(^\ \)\(^\text{179}\)

The triangle in alchemy with apex pointing upwards signified fire, and like the Christian Trinity unites as one God the Father, God the Son, and God the Holy Ghost. These three concepts in alchemy unite Sun (body) Mercurius (Spirit) and Soul in an invisible fire, where the mystery of the alchemists' art is enclosed. The fire itself is fire and water at once, what philosophers call the 'Living Fire'.\(^\ \)\(^\text{180}\) The Christian mystery of the Spiritual Trinity and the alchemical mystery of the Philosophers Stone, "a material trinity in unity"\(^\ \)\(^\text{181}\), suggest that some parallels may be drawn between alchemy and religion. A verse belonging to an Emblematical Scrowle (attributed to Geo. Ripley) and contained in Elias Ashmole's Theatrum Chemicum

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Britannicum, published in 1652 (London) proclaims, "Thou must part him in three and knit him as the Trinity".182

The Rosicrucians associated the triangle with the principle of vibration or the Law of the Triangle which stemmed from the Ancient Egyptian concept of the triangle which symbolized the spiritual plane.183 The Egyptian 'divine eye' (the hieroglyphic sign called Wadza) denoted 'he who feeds the sacred fire of the intelligence of Man'.184 Furthermore, the Egyptians described the circle of the iris with its central pupil as the 'sun in the mouth'.185

In Pontormo's work, poignancy and fantasy are intermingled.186 In Supper at Emmaus, the subject is treated with an original and dramatic approach with invented visual sensations such as the suspended eye in a triangle surrounded by radiating light (although there is conjecture that this motif may have been added later by another artist of the Baroque Period). Colours are employed with little reference to reality in order to create a sense of isolation as well as express strong emotion.187

Whether the artist consciously used the Trinity motif in a modified alchemical sense, or whether he was through deep introspection bringing to the surface a Jungian archetypal symbol, is open to conjecture. What is important is that

the divine eye within a triangle can be interpreted in several ways.

A third eye is generally accepted as being symbolic of the divine or superhuman, and related to the number three, which corresponds to the active (sun), passive (moon) and neutral (earth). Geometrically, three is expressed by the triangle, as well as by three points. The number three is concerned with basic principle and is associated with the concepts of heaven and the Trinity. It is also the harmonic product of the action of unity upon duality (duality and opposites being the fundamental basis of alchemical theory).

An alchemical engraving which embodies the tripartite principle is Malachias Gerger's learned and pious portrayal Microcosmos Hypochondriacus, Munich, 1652.

In Hermetic and esoteric philosophy the numeral three and triangle were often used to symbolize perfection. The number three was regarded as the number of steps necessary for man's union with God, a concept held since the Neoplatonic philosopher Plotinus.

188. Cirlot, J.E. 1962, p. 100.
190. Lewis, R.M. 1977, p. 31.
Pontormo's introverted and introspective nature is relevant when discussing the possible alchemical connotations inherent in *Supper at Emmaus*, since he tended towards a distorted representation of reality in his work. The Manneristic features of spacelessness, elongation, brilliant colour, strong spiritual overtones, and concealment in order to draw attention to what is being concealed, are features which can be more easily understood when examining the artist's personality.\(^1\)

According to Vasari, Pontormo was obsessed with the thought of death and his diary reveals a lonely, introverted man, who possessed a genius which bordered on insanity. Like the alchemist he worked in complete solitude. It is recorded that Pontormo's total involvement in his work and self contemplation would sometimes leave him standing lost in thought all day.\(^2\)

\(^1\) Hauser, A. 1965, pp. 17-18, 191, 193.
\(^2\) Wittkower, R.M. 1963, pp. 60, 64, 70-71, 78.
10.2 PARMIGIANINO (Francesco Maria Mazzola)

Parmigianino occupies a unique position when discussing alchemical art since he was both an artist and practising alchemist. His infatuation with alchemy culminated towards the end of his brief career when he was engaged in painting at the Steccata. The paintings were never completed by Parmigianino, who abandoned the works for his study of alchemy, which led him to be prosecuted by the confraternity and condemned by the Catholic Church. He later fled to Casal Maggiore, where he died shortly afterwards at the age of thirty six, a social outcast and disappointed man.193

Parmigianino's interest in alchemy prompted prejudiced attacks on his paintings, as well as his character. Vasari, who regarded alchemy as 'madness' wrote "having his thoughts filled with Alchemy he changed from a delicate amiable and elegant person that he was to a bearded long-haired neglected and almost savage wild man".194 Whether Parmigianino went mad or not is open to debate, however, psychic dangers were known to the alchemists since ancient times. Olympiodorus says, for example that "in lead (Saturn) there is a shameless demon (the spirit Mercuri) who drives men mad".195 Vasari regarded Parmigianino as having a neurotic personality and commented that Self-Portrait in a Convex Mirror was "an example of a bizarre mind with a clever technique".196

Magic and science are said to strive for a scheme of order in the universe since they both attempt to establish a relationship between things that are superficially different by analogical reasoning. The alchemists searched for an order as the only way life can survive in a cosmos tending towards maximum disorder. 197 The essence of Parmigianino's Mannerist paintings which connect with twentieth century surrealism lie in the awareness of two orders of being and the indecision between the two worlds. 198

Parmigianino's paintings borrowed elements from reality which were transformed into the fantastic. 199 His forms were entirely personal and his colours had a cold enamelled brilliance. The Manneristic features of beauty, harmony and elegance of form, porcelain-smoothness of surface modelling, together with graceful curvilinear movements and flow to his figures, characterize the artist's work. The human form was idealized by Parmigianino into a new psycho-physiological type, elongated, aristocratic, beautiful and expressing a nervous sensibility. 200 Parmigianino also revelled in surprise tactics and exaggeration, as can be seen, for example, in Self Portrait in Convex Mirror.

Pontormo and Parmigianino consciously broke away from common frames of reference in their work in order to convey higher realities and strong emotional content in their paintings. A broad abstractive expression was achieved by employing discordant colours and eliminating the concept of plastic mass which created forms that no longer related to a three-dimensional world.

Parmigianino's choice of a circular, convex mirror in which to portray himself is an interesting device in relation to alchemy. The symbol of the circle is a universal expression of a round, global, cosmic form originating from primeval man's observance of the sun and the moon. When Jung was studying the psychology of shapes he concluded that the circle was the ultimate state of 'oneness', the All, infinity and the universe.

Two years after the completion of *Self Portrait in Convex Mirror*, Parmigianino's appearance and personality were reported to have deteriorated rapidly. The introspective, and perhaps melancholic, youth who gazes out at the world, is difficult to reach by the spectator. A physical barrier prevents easy access to the sitter by the screen formed by the hands and carefully rendered architecture. A psychological barrier is created by the indifference and apparent

PLATE 24. SELF PORTRAIT IN CONVEX MIRROR. PARTINGTON.
aloofness of Parmigianino. The use of the convex mirror also strengthens the bridge between spectator and model, since it is a distortion of reality.

The symbolism associated with mirrors is both exhaustive and complex. Certain symbolic meanings are relevant, however, to this painting: namely that the mirror is a reflection of the universe, as well as an instrument of self-contemplation. It is also related to the multiplicity of the soul. The mythic form of the mirror being a door through which the soul passes to "the other side" finally, the mirror is said to be a symbol of the unconscious mind and the imagination. These interpretations aptly suit Parmigianino's personality and his interest in alchemy and spiritual attainment.

By examining the 'convex' nature of the mirror further insight can be obtained into Parmigianino's complex character. The convex mirror was more than just a device for distorting reality, it was an occult instrument used for foretelling future events and contacting higher sources. For example, the future was said to be reflected in the convex surface of a magic mirror in the Title Page of La Tres Sainte Trinosophie, an eighteenth century Cabbalistic manuscript attributed to the alchemist Comte de Saint Germain.

204. Many primitive societies still believe that the moon, since it reflects the sun, represents the multiplicity of the soul.
Leonardo da Vinci depicted the reflection of an old man in *Witch Using a Magic Mirror* (Library of Christ Church, Oxford). A convex mirror belonging to a Spanish family at Saragossa was said to reflect figures if the mirror was held to any surface of a liquid. If the detection of a thief was sought, the magic mirror would reveal the culprit. 

The Practice of crystal-gazing carries on the old tradition of the magic mirror.


Parmigianino's pagan, rather than traditional and religious, depiction of the Madonna and Child was new for ecclesiastical art. The Virgin has been described as looking more like a seductive Venus, and the child a "sly cupid made to look like a pagan ephebe".

The strong curvilinear rhythms of drapery and free-flowing lines lead the spectator to a centrally placed rose, held in the virgin's right hand. The rose, an important symbol in alchemy, dreams and all areas of magic, collectively represents the achievement of the self and the blossoming of the personality. The fulfilment of the self

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PLATE 25. MADONNA WITH THE ROSE (1528-1530).
symbolized by the androgyne was also expressed by the rose. The red and white rose (variants symbolizing the King and Queen) represented the 'conjunction' in alchemy.  

**MADONNA DEL COLLO LUNGO (Plate 26) (1535) Florence, Uffizi.**

The Mannerist features of elongation, elegant and graceful figures, fluent drapery, yet restrained movements together with the surprise illusionary effect of the row of surrealist columns in the background, typify Parmigianino's 'mannered' style.

The possible alchemical symbolism of the vase situated to the left of the Madonna is worthy of further study, since it could be interpreted as the Vase of Hermes. The Philosopher's Egg (or vase) hermetically sealed, was the alchemical symbol for fertility and creation. The womb therefore was represented as a vase which contained the spiritual embryo or mystical birth.

**THE ALTAR OF MADONNA WITH ST. STEPHEN AND ST. JOHN THE BAPTIST (Plate 27) Dresden Gallery 1538-1540.**

A seriousness and dignity pervades this painting, executed shortly before Parmigianino's death. The new dignified mood, hierectic structure and grave facial expressions have such an austere religiosity that, according

209. Bessy, M. 1963, pp. 120, 125.
PLATE 27. THE ALTAR OF MADONNA WITH ST STEPHEN AND ST. JOHN THE BAPTIST (1538-1540) 
Parmigianino. Dresden Gallery.
to S.J. Freedberg, 'seems an anticipation of the imminent Counter-Reformation.'

It is open to debate as to whether Parmigianino underwent a complete conversion to the Christian faith after experimenting with alchemy, as suggested by Freedberg, since hermetic symbolism is present in the Dresden picture. The alchemical symbols dominate over the Christian subject-matter, even though Parmigianino may have intended that the arcane symbolism reinforce the Christian allegory in the painting.

The fertility and spiritual birth symbol, represented by a vase in *Madonna del Collo Lungo* is replaced by an egg-shaped stone, critically positioned in the centre of the composition. In its egg-shaped form, the stone symbolized the Vase of Hermes (or Philosopher's Vase) which represented the operations of the Great Work.

The stone held by St. Stephen creates a central focal point between the triangular grouping of the figures. Further attention is drawn to the stone by an observer situated in the lower left-hand corner of the design and St. John the Baptist to the right, both faces fix their gaze on the stone.

By illuminating the stone against the dark background of clouds, Parmigianino draws attention to the stone, above

which the Madonna and Child radiate light. The quill held by St. Stephen implies the philosophical nature of the Alchemist, or true adept, the seeker of the truth of the universe.
SECTION TWO
CHAPTER ELEVEN

THE SEARCH FOR A HIGHER REALITY

When studying the pictorial representations of alchemy it can be seen that the Great Art could be depicted as a degenerate and fraudulent display of 'hocus pocus' or a sublime and inspired philosophic portrayal of the highest kind.

The extreme polarities of alchemical representation and the shades of interpretation between esoteric alchemists and exoteric puffers ranged metaphorically across the spectral alchemistic peacock's tail. Therefore, to attempt a rigid classification of alchemical symbols would be both inadequate and simplistic, denying the intuitive art of alchemy full reign to its artistic expression. The underlying principle in symbolic formulas, signs and allegories was to indicate to man's baser nature, that it was possible to transmute to 'higher states'.

Across the wide range of "alchemists" there was a solid core of craftsmen, who by their devotion and practical experimentations lay the foundations for modern chemistry. They occupied a position which was neither centred around the materialistically motivated pursuits of the puffers or the extreme esoteric aims of the religious mystics and philosophers.

Modern technological man may search widely to know more about his inner being, the origin of his energy and his psychic powers. The alchemist in the past searched for the same answers seeking to find the reasons within. Archetypal symbols such as those depicted in alchemy are a major part of man's inner world and psychology. Jung has done much to clarify man's rediscovery and understanding of these symbols\textsuperscript{216}, breaking away from the strict scientific rationalism which has dominated Western man's thinking since the seventeenth century and which excluded the possible integration for rational and non-rational faculties\textsuperscript{217}. Alchemy cannot be channelled into a single system of thought or strict scientific rationale since it transcends all religions and all dogma. The alchemist was convinced of parallels and uniformities existing between natural and spiritual laws and the integrating of material and immaterial worlds\textsuperscript{218}.

Magical and alchemical art combined both rational and non-rational imagery in expressing the mysteries of matter and the universe, seeking to encompass mind, body and spirit into a unified whole. The uniting of opposites in alchemy was similar to the Yin and Yang which formed Tao in Zen Buddhism\textsuperscript{219}. "Alchemy is the mother of the

\textsuperscript{216} Taffy, Magnus 1979, Vol. No. 1, p. 29.
\textsuperscript{217} Arguelles, J. & M. 1972, p. 44.
\textsuperscript{218} Klossowski de Rola, S. 1973, pp. 10, 21.
\textsuperscript{219} Jung, C.G. 1959, p. 58.
essential substance as well as the concreteness of modern scientific thinking, and not scholasticism which was responsible in the main only for the discipline and training of the intellect".220

Alchemy may be universal; like the cosmic rays of space, an enigma, nevertheless it exists. "Much yet remains to be learnt about alchemy, not least the development of human nature, which brings the spiritual gold of true individuation of the whole personality".221

Since Paleolithic times man has been a symbol maker. By transforming natural and man-made objects into signs and symbols man endowed them with considerable psychological significance.\textsuperscript{222}

In the vast records of Hermetic literature and alchemical texts nothing is more ambiguous than a symbol. The multi-meanings associated with pictorial and literary symbols coupled with the cryptic and allegorical nature of alchemical iconography, create a situation where interpretation can become both fantastic and divergent and often passed on in history as fact. It was part of the alchemist's and artist's challenge to select and decipher truth from legend from the vast sea of cryptic symbolism which surrounded the subject.\textsuperscript{223}

No survey of alchemical art would be complete without some reference to the psychology of alchemical symbolism pioneered by Carl Jung. Jung endeavoured to show how the symbols found in alchemy related to the structure of the unconscious mind. He believed that the philosopher's stone was the liberated spirit or soul released from the body which takes place in dreams and fantasies. The process of liberation from the physical self was to the alchemist.

\textsuperscript{222} Jung, C.G. 1964, p. 232. \textsuperscript{223} Van Lennep, J. 1966, p. 244.
synonymous with the liberation of the spiritual in matter. 224

Jung strongly believed that neither the secrets of alchemy, creation, or the meaning in a work of art could be simply explained by psychology. Psychology could only offer a modest contribution to a deeper understanding of alchemy, the phenomena of life and a work of art. A symbol to Jung would always remain a perpetual challenge to man's processes of thought. 225 This challenge was taken up by Dürer in *Melancholia* who more than any other artist in a single work incorporated alchemical ideas and symbolism so profound as to be still open to new interpretations. Teniers *Cupid's in the Laboratory* is another example of alchemical art which still remains to some extent a mystery; the reason for the inclusion of a transparent floating sphere in this painting will probably always remain an enigma.

According to alchemical texts, new and fresh meanings in symbols and images from higher levels of consciousness can be revealed, and thereby is appreciated the true meaning of alchemy itself. Therefore, it would be a mistake to treat alchemical art as purely material for a psychological investigation, disregarding the nature of physical changes symbolized in the pictures, since alchemy attempted to express the perfection of matter in relation to human

experience. In *Psychologie und Alchimie*\(^{226}\) Jung maintained that the alchemist in studying matter symbolically was then able to symbolize his own inner being or psyche.

The nineteenth century English artist and poet William Blake was similar to the alchemist in that he symbolized his own mythology from his inner-most thoughts and visions. Blake like the true adept, believed that "the materialistic search for power and knowledge was incompatible with the possession of knowledge of power beyond the dreams of the majority."\(^{227}\)

In dreams man produces symbols unconsciously and spontaneously. Symbols not only occur in dreams, but can also appear in all types of psychic manifestations as symbolic acts, situations, thoughts and feelings. Collective symbols in religion and in alchemy can be involuntary and spontaneous, manifestations rather than intentional inventions, their origins buried in the past, collective representations from fantasies and dreams.\(^{228}\)

Jung studied the patterns and images of dream symbolism experienced by some of his patients, and concluded that the symbolism was a type of mythology which developed in the innermost regions of the psyche.\(^{229}\) Spiritual manifestations were not to Jung substitutes for living things, but

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the fruits of the inner self which perpetually flowed from the unconscious. 230

The alchemist's experimentations were therefore symbolical rather than chemical. The representation of chemical change and processes described by the alchemist became incomprehensible to some and unrecognizable to others, due to the elaborate symbolic language or system employed. The personal illumination of process of projection within the alchemist's own psyche was interpreted by the peculiar behaviour of chemical substances. 231

Visual symbolism cannot be fully explained or defined by virtue of its unconscious nature, because it can contain meanings beyond the normal range of comprehension and imagination. 232 "Western consciousness is by no means the only kind of consciousness there is; it is historically limited and representative of only one part of mankind". 233 A symbol however, can be a link between the physical and the spiritual world, and can be defined as a name, a visual image or a term which carries a specific connotation beyond its obvious meaning.

Symbols can also derive from the collective unconscious in man; shorthand images or universal archetypes which can evolve independently both geographically and in time.

Jung cited the alchemists as being witnesses to the collective unconscious, and was fascinated by their use of chemical substances as a means of projecting a psychic transformation.234

The essential secret of alchemy lay in the unconscious or human spirit. Sincerity of purpose coupled with true imagination in performing the great work, were essential ingredients for the success in alchemistic practices. The alchemists made concrete or personified most of their important concepts, for example, the four elements, the prima materia, the stone, the vessel, the tincture etc., "with the idea of man being a microcosm, representing in all areas of his body part of the universe, a remnant of an original psychic identity, which reflected a twilight state of consciousness."235

It is not possible here to discuss at length Jung's concepts without going further into his psychological and anthropological theory which would be beyond the scope of this work. In relation to alchemical symbolism in art Jung provides the historian with a much wider range of possible interpretations of signs and symbols than purely literal observations provide. In Rembrandt's *Philosopher with an Open Book* (1663) the introspective old man lost in thought exemplified Jung's belief that one must explore his own unconscious. To ignore one's unconscious is to deny the natural and limitless potential that it can offer, in enriching our conscious functions.

Alchemists were able to judge whether or not their experiments were progressing successfully by certain colour changes at the end of each stage. In a sixteenth century manuscript *Alchimie de Flamel* a miniature depicts a colour strip (directly above Flamel's alchemical apparatus) of seven colours, indicating the sequence or order of colours associated with the various stages of transmutation.236

The various colour changes which accompanied the alchemical process were described in a treatise titled *The Open Entrance*:

"The beginning of the heating of gold with mercury is likened to the kind stripping off his golden garments and descending into the fountain. This is the regimen of Mercury. As the heating is continued, all becomes black; this is the regimen of Saturn. Then is noticed a plan of many colours; this is the regimen of Jupiter. About the end of the fourth month you will see the sign of the waxing moon, and all becomes white; this is the regimen of the Moon. The white colour gives place to purple and green and you are now in the regimen of Venus. After that appear all the colours of the rainbow or peacocks tail; this is the regimen of Mars. Finally the colour becomes orange and golden; this is the regimen of the sun."237

236. Powell, N. 1976, pp. 44; 64.
It is interesting to note that the seven planets represent seven colour changes in alchemy. Sir Isaac Newton who was interested in alchemy and propounded the theory of gravity, a quality he believed related to the planet Saturn and lead, also believed that there were seven colours in the spectrum instead of six, because of the alchemical and magical significance attached to the number seven.\footnote{238}

The use of colour was also basically employed to reinforce the polarity, duality and conjunction of opposites in alchemy, e.g. white (luna) red (solis). Some other examples would include the black/white antithesis of the two-headed eagle and the white and red rose symbolical of the union between water and fire.\footnote{239}

\footnote{238} Powell, N. 1976, p. 114.
\footnote{239} Cirlot, J.E. 1971, pp. 57-58.
The Four Stages of the Great Work were symbolized by the four outstanding colours in alchemy, which were remotely connected with the four temperaments and the four humours of the body:

<table>
<thead>
<tr>
<th>COLOUR</th>
<th>HUMOUR</th>
<th>ALCHEMICAL STAGE</th>
<th>ELEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLACK (sin, guilt)</td>
<td>Black bile</td>
<td>Base</td>
<td>Earth</td>
</tr>
<tr>
<td>WHITE (ablution, purification)</td>
<td>Phlegm</td>
<td>First transmutation</td>
<td>Water</td>
</tr>
<tr>
<td>RED (love, passion)</td>
<td>Blood</td>
<td>Second transmutation</td>
<td>Fire</td>
</tr>
<tr>
<td>GOLD (or citrine) (salvation, immortality)</td>
<td>Bile</td>
<td>Third and final transmutation</td>
<td>Air</td>
</tr>
</tbody>
</table>

Grillot De Givry places the colour red in the final stage of the operation as follows:

- **BLACK** - adepts call it the 'Ravens Head' or blackest black
- **WHITE** - second stage; stone of whiteness capable of transmuting all metals into silver.
- **GREEN** - third stage; the transmutation of all metals into gold.241

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TABLE III

SILBERER'S TRIPlicate COLOUR DIVISIONS

Silberer lists six colour stages in the process of alchemy extending from black, grey, white, yellow, red and purple. A triplicate division results in three main phases as follows:

**BLACK** (androgyne; black raven) - corresponding to the introversion and to the first mystic death.

**WHITE** (female element; moon; mercury) - corresponding to the new earth, freedom and innocence.

**RED** (male element sun; red lion; sulphur) - corresponding to love and the completion of the work.\(^2\)

When the colours are combined in sequence as in the peacocks tail or rainbow, the colours represent the order or stages which occur during the preparation of the philosophers stone, the alchemic order to colours from the inferior female and terrestrial levels through to the celestial and superior male levels was as follows: yellow, blue, green, black, white, red, gold. The path or spiritual ascension would be from black - white - red - gold. Black generally denoted the primal wisdom state of occultation and fermentation, whilst white denoted illumination and revelation. Red denoted sublimation and

love, and finally gold symbolized the ultimate spiritual stage.\textsuperscript{243} A parallel can be drawn between Christian colour symbolism and alchemy since black represented penitence; white purity; red, charity and love.\textsuperscript{244}

During the seventeenth century colours in alchemy followed the Heraldic code of the Red King (gold, the philosopher's stone or sorphic mercury); the Black Crow (putrified matter); the White or Blue Queen (silver or sophic mercury); the Grey Wolf (antimony, sulphide)\textsuperscript{245}.

An example of colour symbolism used in accordance with alchemical iconography is the beautiful illuminated manuscript of Salomon Trismontin's \textit{Splendor Solis} 1582 (British Museum)\textsuperscript{246}. In \textit{Splendor Solis} the colour changes which occurred within the alembic range from the black calcining phase through to the gold of the philosopher's stone are evident.

Another example of colour symbolism which reinforced the alchemical meaning inherent in the design was a painting of an \textit{Ouroborus} by Theodorus Pelecanos (1478, Bibliothèque Nationale, Paris). The Ouroborus is represented as having a red outer skin and an inner green belly, the red symbolizing the goal of the Great Work and the green associated with the 'germination' or the beginning of the Great Work.\textsuperscript{247} The ouroborus was a particularly important

\textsuperscript{243} Cirlot, J.E. 1971, pp. 57-58.
\textsuperscript{244} Read, J. 1961, p. 44.
\textsuperscript{245} Read, J. 1944, p. 243.
\textsuperscript{246} Klossowski De Rola, S. 1973, p. 32.
symbol in alchemy since it was the first and earliest sign represented in alchemical texts. The dragon or serpent which symbolized matter in its imperfect degenerate state had first to be killed (reducing it to a non-metallic state) before being ready to receive the new spirit.247

It should be borne in mind that much of alchemical art is in the form of black and white etchings, drawings, wood-cuts and engravings, which accompanied the alchemical texts. Therefore, only illuminated manuscripts and some paintings can be studied in relation to alchemical colour symbolism.

CHAPTER FOURTEEN

ALCHEMICAL ART IN ARCHITECTURE AND SCULPTURE

In the wider context the subject of alchemy should be examined with regard to total art. Alchemical symbolism can be incorporated in painting, drawing, engraving, sculpture, literature and music. It would be impractical to discuss alchemy in terms of its wider implications here, although a brief reference to art forms other than painting and engraving is relevant to the survey. It has already been seen how in painting Parmigianino, Antonio Tempesta and Pontormo combined alchemical symbolism with Christian iconography in some of their paintings. The following examples, most of which could be termed 'ecclesiastical - alchemical' works in architecture and architectural decoration further clarify the diverse and subtle nature of alchemical symbolism. The essentially visual character of many alchemical allegories was particularly suited to plastic representation as well as wall-decorations.

14.1 NOTRE DAME CATHEDRAL

Zachaire in his Opuscule ties excellent de la vraye philosophic naturelle des metaux (Lyon 1612) recorded that the alchemists in the sixteenth century held their meetings in Notre Dame Cathedral.

The French alchemist Fulcanelli claimed that all the secrets of alchemy were to be found in the carvings of the Great Porch of Notre Dame, awaiting to be interpreted by those students capable of deciphering the arcane symbols. Gothic cathedrals were claimed to be secret textbooks of hidden wisdom. Fulcanelli proposed that Gothic art, l'art goth, is really argot, the Language of the common people. Fulcanelli also interpreted a relief in Amiens Cathedral as being a representation of an alchemist contemplating the stream of celestial dew.249

The most significant alchemical art work in Notre Dame is the status of St. Marcellus, situated at the southern doorway on a central pillar. The sculpture first carved in the fourteenth century was later replaced250 by Lassus and Viollet-le-Duc in the sixteenth century.

_St. Marcellus_ is the principle alchemical hieroglyph in Notre Dame and contains many alchemical symbols. Flanking the pedestal of the figure are medallions which depict the crude and worked states of metals during the alchemical process. The Bishop's crozier touches a dragon's throat symbolical of the shaft of celestial light, necessary for kindling the fire of the athanor. Climbing out of the coffer below St. Marcellus' feet a dragon represents the philosopher's mercury. The dragon's tail which is shown clinging to a man's head which eminates fire, symbolizes man's emergence from the dragon or serpent.251 The dragon's claws which are embedded in an athanor show man must be first immersed

250. The original statue is now in the Salle des Thermes at the Musee de Clumy.
in the cosmic furnace and digested therein in order to be re-born. 252

14.2 ST. MARGARET'S CHURCH, WESTMINSTER

Elias Ashmole recorded the existence of an alchemical painting on a wall in Westminster Cathedral in 1652. A stained-glass window was also recorded by Ashmole which formerly existed in St. Margaret's Westminster and depicted the preparation of the Philosopher's Stone. 253 Unfortunately, the window was mistaken for a Popish story and destroyed, but Ashmole left a graphic description of the design as follows:

"The window is divided into three parts. In one was a man holding a boy in his hand and a woman with a girl in hers all standing upright, naked postures, upon a greene foliate earth.

Both had fetters on their feet and seemed chained to the ground, with fetters were presented as falling from their legs.

Over their heads were placed the Sun and Moon painted on a sad darke colour.

On the left side of the window was a beautiful young man clad in a garmet of various colours bearing a yellow cross upon his shoulders, his body encircled with Bright Glory which sent forth beams of diverse colours. He stood upon an earth imitating oculus piscium.

252. This symbol can also be interpreted as being the philosopher's egg digested in the athanor.
In the lower and middle part of the window was a large rose which issued rays upward and in the middle an exceeding bright yellow glory. Above was the figure of a man rising with beams of light spread about his head. He had a garment of a reddish colour deepened with red and heightened with yellow. In his left hand he had a white stone which he held towards the persons arising in that part of the window, and in his right hand he held a red stone towards him whose garments were of various colours.

Over the figures was inscribed "OMNES GENTES ADEPTI PLAUDITE QUIA DOMINUS FRATER VESTER"\textsuperscript{254}

Three main phases in the alchemical processes are indicated in the St. Margaret's stained glass window:
(i) The first panel shows the earth-bound fettered male and female figures. The polarity and opposing principles in alchemy are indicated by the sun (gold) above the male figure, and the moon (silver) above the female figure.
(ii) The right-hand panel represents an idealized young man (or alchemist) dressed in the colours of the alchemistic peacock's tail, symbolizing the various stages of transmutation. The man holds a gold cross, which although is a complex symbol in alchemy, was probably meant to stand for the conjunction of opposites - the wedding of the spiritual (vertical) and earthly (horizontal) worlds.

\textsuperscript{254} Thompson, C.J.S. 1974, p.101.
The middle panel shows a single red rose (representing the male, king and gold signs) symbolical of perfection and the completion of the task. Above the rose an adept is portrayed holding a red and white stone in each hand. The two stones, symbolize the attainment of the philosopher's stone and the inner transmutation associated with it. The alchemist, his task completed, is at one with the universe and the almighty.

14.3 CHURCHYARD OF THE INNOCENTS

Another example of alchemical emblems relating to an ecclesiastical building which reveal a close relationship between alchemy and ecclesiastical art were the paintings in the Churchyard of the Innocents in Paris. The murals depicting the Figures of Abraham exercised a great influence on medieval alchemical symbolism. The paintings which were recorded and exposed by Nicholas Flamel remained on public view from 1407 until the eighteenth century.255

14.4 ESCORIAL SPAIN

Luca Cambiaso's La Gloria or the Vision of Paradise fresco painted during the sixteenth century and located in the vault raised over the choir in the Escorial is a particularly interesting ecclesiastical-alchemical work. The painting represents the Trinity presiding over the legions of the blessed.256 The composition is a conventional

portrayal of God the Father and the Son seated upon a rainbow with the exception of one element, a cubic block of stone which has been introduced jutting diagonally from the picture-plane commanding a dominating feature in the design. Although historical records leave no explanation as to why the stone was included in the fresco, it is difficult to believe that it was introduced as a mere caprice by the artist. It is also difficult to accept that the commanding presence of the stone was placed there as merely a footrest!

It is recorded that Phillip II supervised the fresco as well as other decorations in the Escorial and at that time had been converted to Lullism by Juan Seguí, a canon of Palma, who was also an enthusiastic alchemist. Juan de Herrera, Phillip II's architect for the Escorial was also a Lullist by 1579 when Lull was considered as being something of a magus similar in status to the great Hermes Trismegistus.

Herrera's library contained over one hundred Lullian works as well as many books on occultism and alchemy. A manuscript written by Herrera entitled A Treatise on the Cubic Figure According to the Principles and Opinions of Ramon Lull strongly suggests the reason for the inclusion of the cube in La Gloria.

257. Lull's cosmology was mainly astrological and embraced all forms of Hermeticism.
258. Taylor, R. 1967, pp. 82-83.
In the Kings Library a book by Piero Valeriano Hieroglyphica, Lyon 1595 (Book XXXIX, p. 383) referring to the hermetic significance of the cube states "it is a hieroglyph of the Supremum Numen". Since the figure is the outcome of a threefold operation its presence at the foot of the Trinity would be not out of place.

Finally, the cube was geometrically, symbolically and numerically equated with earth (the heaviest and most inert of the four elements. Fra Luca Paccioli in the Renaissance wrote about the cube in De Divina Proportions explaining that since the cube represented earth and was the base of all elements it was also the receptacle for receiving heavenly influence.

Phillip II was also interested in Magical theatres borne out by a book in his private library entitled, *Idea del Theatre*, a magnificently illustrated volume with over two hundred sketches by Titian. Published in 1550 *Idea de Theatro* was dedicated to Diego Hurtado de Mendoza, a Spanish humanist and historian and close friend of the king. This book, regarded as one of the key hermetic works of the period, was also in the possession of Herrera who probably was influenced by the Pythagorean numerology, Lullian mnemonics and Cabala content. The underlying theme in *Idea de Theatro* was based on Vitruvius' theatre.

with the emphasis shifted from zodiacal ordered architecture to a planetary and hence alchemical ordered architecture. The desire to incorporate harmonic ratios into Renaissance buildings was an attempt to place earthly architecture in harmony with cosmic order. 260

CHAPTER FIFTEEN

THE NEED FOR CARE IN INTERPRETATION OF ALCHEMICAL ART

There will always be a considerable amount of confusion, debate and contrasting personal interpretation surrounding the study of alchemical art. As in literary sources the pictorial representations of alchemy are steeped in ambiguity and mystery, reinforcing the secretative nature of the art.

For example, a recently published work by Johannes Fabricius *Alchemy* (1974) contains a wealth of four hundred alchemical prints, which are not only poorly documented, but in many cases lack direct reference to their sources. Unfortunately, in most cases the text lacks substantial research or understanding of the subject.

To engage on any aspect of the study of alchemy vast research of available material is a pre-requisite (as with alchemy itself) otherwise a subjective and literally pseudo-alchemistic (or puffer's) point of view becomes evident.

For example, Fabricius refers to the well-documented etching of Rembrandt's *Dr. Faustus* as being titled *A Practising Alchemist*. Of the mocking satire of Hans Weiditz's woodcut, *An Alchemist and his Assistant at Work* (1520) Fabricius says, "an unknown German master called the Petrarcha Master shows a couple of gold-makers frustrated
by an unfortunate breakage at the hearth causing the loss of weeks of labour. Fabricius makes no mention of the title or the real content of subject which is so obviously a satire on the fraudulent hocus-pocus of pseudo-alchemists (see full description, p. 45).

Fabricius highly subjective and psychological interpretation of an engraving bearing the caption "Lovers of the Hermetic Sun and Moon washing the filth from their incestuous sheets" is in fact an engraving commonly known as Collecting May Dew for the Great Work from Mutus Liber in Bibliotheca Chemica Curiosa (Manget, 1701). Mutus Liber popularly known as the 'Wordless Book' contains fifteen plates illustrating various stages in the alchemical process. The 'Wordless Book' is unique in the study of alchemical art since it is purely a pictorial description of alchemy with no explanatory text. This feature leaves it wide open for diverse and fantastic interpretations as Fabricius demonstrates: Of Collecting May Dew for the Great Work he says, "With the uncovering of the Oedipal layers of primary process thinking and mythical fantasy, the unconscious conjures up a pandemonium of images and impulses disagreeable if not repulsive to the conscious mind. The immensely sadistic, incestuous and patricidal fantasies of infantile sexuality explain the obsession of the alchemist and his sister with cleanliness, nobody talks as much about cleanliness as a 'dirty' person."

Obviously Fabricius is oblivious to the fact that the engraving is self-explanatory in regard to this particular stage in the Great Work. Books and treatises frequently refer to the collecting of May Dew on white linen cloths (six of which are depicted in the Mutus Liber engraving, which must have meant to Fabricius a dearth of incest). The Alchemist and his wife (or assistant) after pegging out the cloths on wooden stakes collected and wrung the dew into metal tubs. The dew then allowed to stand for fourteen days, it was then distilled four times having yielded the potent 'spirit of the Dew'. The refined dew was then employed in the transmutation process, since it was believed then to have amongst other properties, the power to dissolve gold. 266

Another example of Fabricius' poor understanding of alchemy and lack of research is the brooding figure portrayed in Dürrers Melancholia (plate 8), summed up by Fabricius as representing "the winged hermaphrodite of the citrinites, seated in the alchemist laboratory and surrounded by symbols of the royal art" 267.

The hermaphrodite in alchemy plays an important role as Mercury, and is always depicted as a 'two-headed' figure often with the inscription Rebis 268 (double-thing). Therefore it is difficult to accept Fabricius interpretation of the winged figure. To suggest Dürrer has placed his figure

in an alchemical laboratory is equally unacceptable, since Dürer portrays an exterior environment depicting a view of the ocean in the right hand of the design and an exterior wall on the left.

On the subject of *Melancholia* Fabricius launches himself into another popular and generalized psychological interpretation, saying "Dürer's work and the yellowing work reflect man's archetypal experience of late middle age depression. The essence of its piercing agony is the ego's experience of biological and psychological decline (Middle and Late Middle age are among the commonest periods in which depressive reactions occur)." 269

The view is naive since in alchemy the unhappy state of genius or melancholia was a stage which the Alchemist invariably experienced before attaining the philosopher's stone. "Knowledge comes but wisdom lingers". 270

16.1 ALCHEMY AND THE RENAISSANCE

During the Renaissance artists turned away from imaginative and mystical symbolism, and focused on the outer reality produced by the Copernicum sun-centred universe. The intelligensia during the age of Reason steeped in classical studies and scientific logic found it impossible to equate the operation of green dragons, or the ouroborus as representing the forces of nature. By the seventeenth century the new and more materialistic mind saw medieval alchemical symbols as simple illustrations of a theory. Substances and their manifestations were classified into a story where lions and serpents played dramatic and fantastic roles. The remaining true philosophical alchemists during this period believed the allegories concealed mystical truths yet to be revealed. "Ora Lege, Lege Lege, Relege, Labora et Ivenies" ("Pray, read, read, read, again toil and thou shalt find").

Both in conception and expression of its symbols, alchemy in its last stages is indebted to the Renaissance, even though the humanists had little liking for Hermetic sciences. During the Renaissance artists, architects and scholars re-discovered ancient mythologies from antiquity.

and assimilated their findings into an alchemical system of symbols thereby concealing the mystical secrets within. Pernety\textsuperscript{274} believed that the whole of classical mythology was one elaborate allegory which related to the esoteric tenets of alchemy.

16.2 PARACELSUS

Paracelsus, the great sixteenth century physician, who was interested in the mysticism behind alchemy, perhaps unwittingly started the decline in the alchemy and the process towards true chemistry.

A central figure in the Renaissance Paracelsus added the third principle in his triaprima which he called 'salt' to the existing sulphur and mercury. Paracelsus revived both medicine and alchemy, regarding the latter as a means of longevity, an elixir of life in chemical application. This was known as iatro-chemistry or medico-chemistry and flourished until the end of the seventeenth century.\textsuperscript{275}

Paracelsus was one of the first to conceive the mystical view of alchemy, that through divine faith an adept had the power to actually and literally transmute base metals into gold through a super-human\textsuperscript{276} act.

\textsuperscript{274} Pernety, A.J. 1972, p. 181.
Although Paracelsus did not make the philosopher's stone his interest in alchemy was to use its methods in the preparation of medicines, based on chemical substances. The distillation process for example used in alchemy was also used in the preparation of herbal medicines. A typical Apothecaries Laboratory closely resembled an alchemical laboratory, but without the furnaces. H. Stacey Mark's painting the Apothecary executed in the late sixteenth century is an example of this.

16.3 SCIENCE AND ALCHEMY

The open forum of discussion by eminent scientists and thinkers from the mid-sixteenth century on, which began in Europe, culminated in 1660 with the establishment of the Royal Society in London. The open discussions were a blow to the alchemists and the mysteries which surrounded the subject, as they were now confronted with rational scientific methods being applied to their Art. Secret mysteries were now subjected to an open exchange of scientific views as well as repeatable experimentation. Even though the seventeenth century was a time of great progress in both scientific thought and discovery many pioneering experimenters and philosophers were also staunch believers in alchemy, e.g. Sir Isaac Newton, and the philosophers Descartes and Leibniz.

The serious alchemists were not crazy men but were often leading scientific and religious thinkers of their time. Success in material transmutation meant success of spiritual transmutation. Gold stood for excellence, perfection, wisdom, and light, the real alchemical gold having both a real and symbolic significance. Pietro Longhi's painting *The Alchemist* (Ca' Rezzonico Venice/Scala, 1757)\(^{278}\) reflects this view of alchemy admirably. Longhi combines the practical and spiritual aims of alchemy without the previous 'clutter' of apparatus and picturesque handling associated with the Flemish and Dutch masters a century before. The alchemist, stands in an ordered environment holding a retort; he is neither idealized or romanticized, but nonetheless commands respect. The central focal point in the composition is the magical liquid, the 'essence' called the philosopher's stone within the retort. A priest to the left of the adept is seen examining the flask, whilst an assistant tends to the practical task of firing the earth in the far left of the design.

16.5 **MORALS AND ALCHEMY**

Longhi's painting is a far cry from the cynical and satirical interpretations portrayed by Brueghel, Weiditz and Steen who reflected in their works the social attitudes of the day surrounding alchemy. These artists mirrored the

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negativity, scepticism and often misinterpretation of the philosophical and spiritual aims of the subject. Such artists believed that they were upholding the moral canons of the day in choosing to ridicule the alchemist. Diderot sums up this moral obligation in stating, "To make virtue attractive, vice odious, ridicule forceful: that is the aim of every honest man who takes up the pen, the brush or the chisel"\textsuperscript{279}. This theory also justified the choice of such an unconventional subject as alchemy during a period which upheld the classical and aesthetically visual qualities in pictorial art.

The reason why the alchemist was so often misunderstood during the Renaissance was because his statements were taken literally when he was speaking in metaphorical terms. The insistent and repeated statements of alchemists "aurum nostrum non est aurum vulgum" (our gold is not common gold, and our mercury is not the common mercury)\textsuperscript{280} went unheeded. The chemical terms employed by the alchemists were metaphors for the opus (inner work) of psychic transformation.

16.6 BOOK ILLUSTRATION AND PRINTING

The revival of learning in the Renaissance and the rediscovery of the Greek culture and Aristotle was followed by the important technical invention of printing. Authentic

\textsuperscript{279} Metzner, R. 1971, p. 84.  
\textsuperscript{280} Read, J. 1947, p. 18.
alchemical texts in the venacular were printed for the first time and had a far reaching effect on the understanding of alchemy. It was in book illustration that the purity and naivety of pictorial symbolism reached its zenith in esoteric alchemy. The paintings found in Salomon Trismosin's *Splendor Solis* (1582) British Museum, and the engravings which accompanied the text of Michael Maier's *Atalanta Fugiens* (1619) Stolcius' *Viridarium Chymicum* (1624), and Robert Fludd's *Utriusque Cosmica Historica* (1619), for example, illustrate the rich alchemical symbolism during a period when the actual practice of alchemy had fallen into decline.

During the sixteenth and seventeenth centuries the Low Countries produced many alchemical engravings, and it was there that pictorial alchemy found its most characteristic form. Engravers such as the De Bry family, the Cocks and Galles are familiar names to collectors of alchemical prints.

16.7 THE LOW COUNTRIES

In painting Dutch and Flemish artists with their background of pharmacy alchemy and mining found a tolerant environment in which to portray alchemical subjects during the seventeenth century. The well-known seventeenth century Dutch physician Johann Friedrich Schweitzer and later known

as Helvetius was reported as having transmuted gold in 1666. Helvetius' account of transmutation is still puzzling today and open to debate, but nevertheless the description was a very circumstantial report, and there is little evidence to suggest that it was a hoax. None of Helvetius' contemporaries ever doubted his integrity and the philosopher Spinoza convinced that the gold was indeed alchemical gold had it tested by the provincial assay master Porcelius, who pronounced the metal as genuine. 283

Low Country artists were free to choose alchemical and hence unconventional subjects to paint, but also found a ready market for their pictures in the bourgeoisie. Paintings depicting the alchemist were collector's items attuned to the tasks of a provincial aristocracy. To understand the reason as to why secular and independent subjects developed in the Low Countries, it is necessary to look at the political background which led to this new freedom of expression.

When the Reformation began Holland was part of the Empire of the Hapsburgs under Charles V. Bloody revolts persisted in the northern provinces against foreign rule until Protestantism became powerful, and Netherlands became an independent state in the latter part of the sixteenth century. 284 It was during the period between 1500 to 1600

that genre, landscape and still life painting were first defined, eventually replacing religious subjects.

16.8 BRUEGHEL AND SOCIAL COMMENTARY

Between 1550 and 1600 the Low Countries experienced their greatest turmoil and it was during this period that Brueghel and Elder chose to ridicule the alchemist. Using Brueghel as an example of how the political and social climate of the day can influence an artist's own perception of a subject such as alchemy it is necessary to look at his own religious and political affiliations and sentiments.

Information regarding Brueghel's complex philosophical attitude is sparse, but it is known that he was a humanist who never worked for the church, and was patronized by the Hapsburgs. His portrayal of religious subjects is oddly ambiguous, for example, The Blind Leading the Blind (1568, 34 x 16" National Museum, Naples). The subject chosen by Brueghel is a parable\textsuperscript{285} that recurs in humanistic literature. Brueghel represents the subject in a tragic and forceful way. Brueghel's rendition in the context of his own time, was perhaps meant to convey as a social comment, the controversy which surrounded religious rituals in the sixteenth century.\textsuperscript{286}

\textsuperscript{285} Matthew, I.S.: 12-19 "And if the blind lead the blind both shall fall into the ditch".

\textsuperscript{286} Janson, H.W. 1970, p. 400.
The reason as to why Brueghel condemned the alchemist and his practices can probably be found in his paintings. When one considers Brueghel's frequent portrayal of peasant life and folk customs it is possible that he regarded the alchemist as an elitist and as such a subject alien to his humanist stand. Perhaps he saw the alchemist as vain and ambitious in contrast to the peasant's simple earthy acceptance of everyday life.

16.9 ALCHEMICAL ACCURACY AND THE GENRE PAINTERS

In the Low Countries genre artists were rarely concerned with medieval, esoteric and ancient mythological symbols and their appropriate colour equivalents, but were more intent on portraying what they believed to be a realistic study of the alchemist in his laboratory. How accurate were these representations, however, is open to conjecture.

To the Dutch painter the alchemist in his dimly lit and mysterious laboratory with glowing furnaces and weirdly-shaped apparatus was an attractive and picturesque subject for painting. The Dutch and Flemish artists during the sixteenth and seventeenth centuries made familiar to future generations what a typical laboratory looked like. It was during this period that the most numerous, significant, picturesque and iconographic documents are to be found.

Teniers, the most significant alchemical artist of the period innovated the picturesque side of representing
alchemy, concentrating on the practical aspects of the art. Teniers broke away from the previously limited and practical depiction of apparatus and its application, but by so doing created a problem of accuracy of alchemical practice in the true sense.

According to many sixteenth and seventeenth writers, alchemical laboratories could not have always been labelled 'picturesque', since apparatus and other pieces of equipment were meticulously arranged on shelves with workmanlike precision.

The true alchemist would have an altar for prayer and meditation in one area of his laboratory. The room, usually a cellar or attic was tucked away hidden from view, which was a necessary prerequisite for preserving secrecy from outside. The room was therefore 'gloomy' and soot-filled, a feature which is so consistently conveyed in alchemical paintings. The furnaces were the most important part of the laboratory until the invention of the thermometer in the eighteenth century. The greatest alchemist of the seventeenth century, Johann Rudolf Glauber showed an accurate diagrammatic description of a furnace with its parts for distillation in his frontpiece of his treatise on Alchemy. Technically, the alchemist needed four furnaces (the calcinatory furnace, the athanor, the descensory furnace and the dissolving furnace) for different

intensities of heat for various operations. Many treatises were devoted purely to the problems of regulating heat. As well as the furnaces a special still called the pelican or retort (referred to as the "philosopher's egg") was needed. 289.

If one analyses *Alchemist in his Laboratory* (plate 13) which is the most comprehensive alchemical study by Teniers, many of the essential pieces of apparatus cited above are missing, namely, two furnaces, a retort and a pelican, as well as an altar for prayer.

Teniers like most genre painters exercised a certain amount of artistic license in representing the alchemist and his laboratory. Apparatus and other objects (skulls, books, stuffed crocodiles, animal skeletons, bouquets of medicinal herbs etc.) were arranged in the design more for compositional needs than for the representation of the practical nature of the equipment. Alchemical apparatus arbitrarily placed on shelves, tables and floors not only served a compositional need but also became an excuse for the genre artist to paint small still-life groups in meticulous detail within the larger design. The end result was a picturesque darkened environment cluttered with essential and non-essential alchemical apparatus. The alchemist in most cases was represented as being a venerable bearded character absorbed in some stage in the process of transmutation, or depicted studying some ancient book, dressed in cap and gown.

Teniers portrayal was a romantic and popularized concept of what an alchemist and laboratory look like. The picturesque alchemical subject represented by Teniers and other genre painters no doubt delighted the connoisseur.

16.10 JAN VAN DER STRAET

In *The Alchemist* (Palazzo Vecchio, Florence/Scala) Jan van der Straet, a sixteenth century Flemish artist resisted the temptation to include arbitrary still-life objects and general clutter so meticulously detailed by artists such as Teniers. A typical sixteenth century alchemist at work is represented. The specialized equipment and six assistants hard at work, with furnaces blazing, all suggests a single purposefulness - a definite plan of integrating experiments. 290

16.11 STEEN

Of all the genre painters in Holland Jan Steen was perhaps the most good-humoured and keenest observer of contemporary life. Steen was foremost a social critic who possessed a perfect sense of timing. As an Inn-Keeper as well as being a practising artist Steen was able to observe at first hand a variety of characters. In *The Alchemist* (plate 17) his keen insight into human nature together with his narrative gusto is evident. The painting like most of his genre studies is entertaining but, in the case of *The Alchemist* also conveys a moral warning.

16.12 WIJCK

Thomas Wijck another seventeenth century genre artist portrayed the alchemist as both a puffer and philosopher. In *Le Menage du Chemists* (plate 18) the clustered disorder and moralistic overtones are reminiscent of Brueghels *the Alchemist at Work* (plate 11) and Teniers the *Pleasure of Fools*. In *L'Alchymiste en Meditation* (plate 19) Wijck's alchemist dressed in cap and gown assumes the role of the philosopher-alchemist, but like the other genre paintings already discussed, the environment is cluttered with a host of paraphernalia.

16.13 MANNERISM: PARMIGIANINO

The classical, lofty noble and biblical themes which dominated Italian Renaissance painting, which were mainly under Papal and aristocratic patronage, allowed little scope for the portrayal of alchemy. Alchemical pictures were neither encouraged or popularized in an environment which regarded alchemy as a 'Dark Science'. Consequently very few Italian Alchemical pictures are known to exist. However the Italian Mannerist painter Parmigianino was exceptional in that he was able to subtly incorporate alchemical symbolism into essentially religious subjects.

Mannerist artists were technically skilled in the Renaissance tradition, but had the freedom to break with Renaissance ideals. In fusing shock elements and other
forms of beauty into their flexible aesthetic, the Mannerists found beauty in strangeness and 'novelty' whether in form or in subject-matter, creating a self-conscious and stylized elegance which embraced subject-matter beyond the scope of Renaissance ideals.

"For the Mannerist the generation of a picture began with an inner image, different from the vision of reality and, so the Mannerist imagined, more nearly perfect, the inner image which was named the disegno interno; was a divine grace, and partook of the archetypal images of God in His own process of creation". 291

The Disegno which was literally a design, projected the artist's own personality into the composition. In Parmigianino's designs a delicate complex equilibrium of rhythms serpentine movements and counter-rhythms exists, contrasting to the relatively stable Renaissance composition of balance around a central axis. It was within Parmigianino's personalized design structures that he projected his own subjective view of reality as well as incorporate alchemical ideas. Parmigianino's weightless ethereal figures with their elongated limbs, porcelain-thin skins and narrow torsos were 'constructions' rather than representations of nature. 292 His 'beings' were ideal vehicles in which to convey the subjective world beyond objective reality. This aspect of Parmigianino's

paintings and indeed, Mannerism, closely relates to alchemy where higher levels of consciousness are sought by the alchemist in order to bring about individuation and the attainment of spiritual gold.

Parmigianino's interest in alchemy was not unexpected since his interests were far removed from objective reality. His strong religious convictions interpenetrated with alchemical ideas and symbols took on a highly personal and unorthodox expression in painting. His paintings were emotionally charged, individual and sometimes verging on the bizarre. His deep personal, spiritual values and strong individualism made him an institution within himself, rather than a member of a wider institution such as the established authority of the church.

As a practising alchemist Parmigianino occupies a unique position in the study of alchemical art. Parmigianino was able to convey through his own hermetic knowledge far more than those artists with limited alchemical understanding who simply illustrated a theory. Parmigianino's involvement with alchemy ran counter to Catholicism since the alchemist sought higher truths through knowledge rather than through faith. As with alchemy itself, Parmigianino succeeded in uniting opposites in his paintings fusing Christian and alchemical symbolism and reality and non-reality into one purified an incorruptible whole.
There is sparse biographical material concerning Parmigianino's last years when he became increasingly absorbed in alchemy and less interested in the practise of painting. Vasari recorded Parmigianino's alchemical studies as follows:

"... "because having begun to study alchemy, he neglected his painting altogether, thinking to grow rich soon, in the congelation of mercury.... he wasted all the day in messing with coals, firewood, glass bowls, and other similar household trumpery.... thus he went consuming himself bit by bit with these chemist's furnaces of his"..."

It would be most unlikely that Parmigianino's sole aim was to acquire material wealth when he was recorded as being unconcerned about his physical welfare. In the social context of Parmigianino's time the study of alchemy by contemporary practioners was regarded as being a mystical - philosophical activity. Since the fourteenth century the whole alchemical process was steeped in Christian theological symbolism, the practising alchemist having first cleansed himself through God by purifying his mind and being unconcerned with the mundane things in life. Food and clothing were regarded as being insignificant which probably explains Vasari's description of Parmigianino's unkempt appearance.

"... from one (who was) refined and amiable become with his beard and hair long and ill-kept, almost a wild man and another from that which he had been .... and become melacholic and strange...." 294

16.14 **DURER**

In contrast to Parmigianino, Dürer adopted the ideal of the artist as both a gentleman and a scholar and his wide studies and intellectual interests encompassed many subjects. In the true Renaissance tradition Dürer's art is universal with theoretically based foundations and rational standards. His influence on sixteenth century art was widespread due mainly to his excellence in the field of print-making. The didactic aspect of his engravings and woodcuts and the linear subtleties of his technique remained unsurpassed in the Western world.

Dürer was able to convey the greatest number of ideas in a single work, as seen for example in *Melancholia* where vast numbers of symbols were incorporated into one design. Although melancholic and saturnine symbols predominate in the composition, many alchemical symbols are present. Dürer's representation of an alchemist in his drawing *The Rape of Europa, Apollo; Alchemist - Three Lions Heads* reinforces the extent to which Dürer must have been interested and perhaps influenced by alchemical ideas and symbolism which culminated in the later *Melancholia*.

16.15 **ATTITUDES TO ALCHEMY AS REFLECTED IN ART**

Pictorial alchemy which reflected social attitudes for and against alchemy, can be viewed as a pendulum swing to and fro from the beginning of the sixteenth century, as follows:

<table>
<thead>
<tr>
<th>THE SWING AGAINST THE BELIEF IN ALCHEMY</th>
<th>THE SWING TOWARDS THE BELIEF IN ALCHEMY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EARLY SIXTEENTH CENTURY</strong></td>
<td><strong>LATE SIXTEENTH CENTURY</strong></td>
</tr>
<tr>
<td>1520 WEIDITZ <em>An Alchemist and His Assistant at Work</em> (plate 10)</td>
<td>1582 Salomon Trismosin's <em>Splendor Solis</em> paintings</td>
</tr>
<tr>
<td><strong>MID SIXTEENTH CENTURY</strong></td>
<td><strong>EARLY SEVENTEENTH CENTURY</strong></td>
</tr>
<tr>
<td>1558 BRUEGHEL <em>An Alchemist at Work</em> (plate 11)</td>
<td>1609 Khunraths <em>Amphitheatrum Sapientiae Aeternae</em></td>
</tr>
<tr>
<td><strong>MID SEVENTEENTH CENTURY</strong></td>
<td><strong>MID SEVENTEENTH CENTURY</strong></td>
</tr>
<tr>
<td>1661 VAN OSTADE <em>The Alchemist</em> (plate 21)</td>
<td>1614 Teniers <em>Cupids in the Laboratory</em> (plate 16)</td>
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<tr>
<td></td>
<td>1648 Teniers <em>Le Chimisle</em> (plate 15)</td>
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</tbody>
</table>
TABLE IV (continued)

MID SEVENTEENTH CENTURY

Teniers Le Grimoire D' Hypocrate (plate 13)

Teniers An Alchemist in his Laboratory (plate 14)

THOMAS WIJCK Le Menage du Chemists (plate 18)

JAN STEEN The Alchemist (plate 17)

TENIERS The Pleasure of Fools

LATE SEVENTEENTH CENTURY

VAN BENTUM "An Explosion in the Laboratory"

HENDRICK HEERSCHOP
The Alchemists Experiment Takes Fire

EIGHTEENTH CENTURY

JOSEPH WRIGHT 'Discovery of Phosphorus'

1757 LONGHI The Alchemist
From the mid-seventeenth century it can be seen how there was a marked change in the pictorial treatment of alchemy, kindled by social attitudes towards the validity of material transmutation (Fig. 7). The alchemist was no longer portrayed as a melancholic mystic working in an environment of chemical apparatus and ancient books, but was now represented as a classically robed figure surrounded by a vast monastic gloom of high vaulted ceilings and glowing reports and alembics. The new environment resembled an antique shop from Balzac's La Peau de Chagrin rather than a practical laboratory. Joseph Wright's *Discovery of Phosphorus*\(^{295}\) painted in the eighteenth century represents the new, dramatic and romantic view of alchemy.

The naive purity of sixteenth century engravings and wood-cuts is gone. The previously Gothic and Baroque representations were neither descriptions or reconstructions, but instead an integral part of alchemy itself.

The new and dramatic representation of the alchemist by Van Bentum and Hendrick Heerschop, is a departure from the usual alchemical laboratory in that an explosion is depicted, which was probably an occurrence which was far from uncommon. The alchemists worked with processes and materials whose explosive potential was only partly understood.

\(^{295}\) Read, J. 1944, p. 245.
The seventeenth century Dutch artist Hendrick Heerschop, in *The Alchemist's Experiment Takes Fire* (Fisher Collection, Pittsburgh)\(^{296}\), depicts the dramatic moment before the inevitable explosion.

Justus Gustav van Bentum's *An Explosion in the Laboratory*, (Fisher Collection Pittsburgh) captures the moment when indeed the experiment 'takes fire' and explodes. The strong chiaroscuro and vivid light illumination heightens the poignant moment. Van Bentum's technique is similar to Rembrandt in that he exposes a preliminary coating of sienna at the illuminated points. A pupil of Gottfried Schalken of Dorfrecht (who studied the effects of candle light) and who was in turn a pupil of Gerard Dou\(^{297}\), Van Bentum admirably handles the dramatic illumination of light and fire.

By the eighteenth century the material symbolism demonstrated in previous centuries gave way to a soul-searching, purifying journey when the symbols of higher levels and steps towards illumination were indicated by planets and metals. Jung attributes this new development in alchemy to the development of the human realization of the psyche. The aim of the alchemist was now to unite materia prima and common unconscious with the personal conscious and unconscious.\(^{298}\)

\(^{296}\). Powell, N. 1976, p. 22.
\(^{297}\). Read, J. 1947, p. 84.
\(^{298}\). Burland, C.A. 1967, pp. 121-122.
THE VAST NATURE OF PICTORIAL ALCHEMY

More than a hundred thousand books and manuscripts are known to exist on the subject of alchemy, and one could spend a lifetime studying the material available which may contain the secrets of energy and matter. The relatively scant research carried out on alchemy has mainly been done by historians, who are usually uninformed in the fields of science and technology, or by mystics seeking to confirm their spiritual attitudes. Alchemy can be interpreted with technical, religious and moral explanations either pictorial or literary.

Transmutation may have not have been an external materialization, but an inner transmutation within the individual or both, of the kind which Rembrandt portrayed in Dr. Faustus or Stolcius' Emblematic Representation of the Great Work in Viridian Chymicum (plate 6). Literature and traditional texts speak of 'the awakening of man' when the great work is accomplished. Dürer's Melancholia seems to anticipate this final quest, which was available to so few.

The basically symbolic technique of alchemy sought to materialize mystical and spiritual truths by applying the positive discoveries made in the natural sciences. J.E. Cirlot wrote, "Each operation, each detail, every subject, every instrument was a source of intellectual and spiritual life: they were authentic symbols."

300. Cirlot, C.E. 1971, XXVIII.
Alchemical pictures present a pictorial account of the opus alchemicum, its rituals, doctrines, symbols and procedures. The mystical significance of alchemy of man's soul uniting with the divine source, and its secretive guarding of its doctrines and symbolic language, finally disappeared with the decline of alchemy in the seventeenth century.

In summarizing the alchemical works discussed in this survey during the sixteenth and seventeenth centuries, ten broad categories can be listed as follows:

16.18 TABLE V
CATAGORIES OF ALCHEMICAL ART

(i) COSMIC DIAGRAMS
Maiers An Emblematic Representation of the Great Work
Viridian Chymicum, 1624

(ii) THE OPERATIONS
Maiers Atalanta Fugiens Series, Oppenheim, 1618

(iii) THE PROGRESS OF THE WORK
Salomon Trismosin's Splendor Solis
British Museum, London Harley, 3469.

(iv) TYPOLOGY OF ALCHEMICAL APPARATUS

(v) THE ESOTERIC ALCHEMIST
Klunrath's The Oratory and the Laboratory 1609 in
Amphitheatrum Sapientiae Aeternae (plate 7)
Rembrandt's Dr. Faustus 1648-1651
Durer's Melancholia 1514

(vi) THE PRACTICAL ALCHEMIST
Teniers Le Chimiste 1648 (Fisher Collection, Pittsburgh)
Van Bentum An Explosion in the Laboratory (Fisher Collection, Pittsburgh)
(vii) THE PUFFER
Brueghel - The Alchemist 1558
Weiditz - An Alchemist and his Assistant at Work 1520
Steen - The Alchemist

(viii) ECCLESTIASTICAL - ALCHEMICAL WORKS
Parmigianino - Madonna del Collo Lungo 1535, Florence, Uffizi.

(ix) THE ROMANTIC VIEW OF ALCHEMY
Heershop - The Alchemists Experiment Takes Fire
(Fisher Collection, Pittsburgh)
Van Bentum - An Explosion in the Laboratory (Fisher Collection, Pittsburgh)

(x) ARCHITECTURAL DECORATION AND ALCHEMY
Notre Dame and St. Margaret's Westminster.

The way in which alchemical symbolism was related to magic, astrology and religion has been discussed. Symbols served the dual purpose of preserving secrecy and a means of conveniently storing information mentally by signs rather than the written word.

Artists were able to throw light on the alchemists method of work, his personality and his environment in a more direct way than written records, eliminating many of the divergent avenues which existed in the alchemical texts. The degrees of illumination conveyed by the artist was naturally determined by the artist's own knowledge and understanding of alchemy and how he objectively interpreted that knowledge.

"Ora Lege Lege, Lege, Relege, Labora et Ivenies" sums up the essence of the Great Art.

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