

Michael Maier's  
ATALANTA  
FUGIENS

Sources of an Alchemical  
Book of Emblems

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H.M.E. DE JONG



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*Dedicated  
to my son*

## CONTENTS

	page
Preface . . . . .	IX
Abbreviations and indications . . . . .	XII
Translation of the title-page . . . . .	XIV

## INTRODUCTION

Biographical and bibliographical data about Michael Maier . .	I
The history of alchemy . . . . .	2I
The Rosicrucians . . . . .	39
Alchemical starting-points . . . . .	48

## THE EMBLEMS

The emblems nos I-L and frontispiece, with statement of sources and commentary . . . . .	55
Summary and Conclusion . . . . .	330
Bibliography . . . . .	339
List of illustrations . . . . .	370
Illustrations . . . . .	377
Index . . . . .	458

## PREFACE

In this study, I have restricted myself to three questions: firstly, what meaning is at the root of these emblems and the texts belonging to them; secondly, on what alchemical sources are these emblems based; thirdly, is it possible to show a mutual connection between the emblems.

He who occupies himself with emblematology sees himself confronted by a remarkable problem: each emblem consists of two main elements: Word and Picture (Motto and Icon). The meaning of these two elements of the emblem is enigmatical. In order to solve this enigma, the author of the emblems introduces a third element, the text, or in Maier's case, the texts. From this follows that, when examining the emblems one is forced to pay attention to the Word as well as to the Picture. An art-historian, who would exclusively restrict himself to an analysis of the Icons, would not be able to obtain complete insight into the meaning of the emblem, no more than the literary-historian, who would ignore the meaning of the Icon.

To me, as an art-historian, the choice of the *Atalanta Fugiens* as subject of my book meant a challenge from the first, and I was conscious of the fact that my task lay in two fields, the literary and the pictorial. In the course of the investigation, it became evident to me that in this case the real problem lay in the field of the Word, as the Motto accompanying Maier's emblems, was, as it were, a title to the Icon; this insight chiefly determined the way in which I approached the analysis of the *Atalanta Fugiens*.

He who turns the pages of Michael Maier's *Atalanta Fugiens* unprepared will be struck by the perfection of Merian's pictures; but at the same time, the slightly strange character of motto and epigram will strike him, and he will probably be annoyed by the all but clear explanation in the two pages of "discourse" following each emblem. The titlepage and the "preface to the reader" are of little value, as long as one does not know the exact purpose of this remarkable book.

So, my first task in treating Maier's work was clear from the

beginning. I had to look for the meaning hidden in these emblems. Beside this, a second question cropped up—and the answer to this finally appeared also to contain an answer to the first question—namely Maier's sources.

It seemed highly improbable that the *Atalanta Fugiens* was the product of the phantasy of a creative artist, who not only combined motto and icon, in a kind of tour de force, but also drew into it musical canons. In the sixteenth and seventeenth centuries, emblem books were not considered and read in quest of new finds, one wanted to be stimulated into thinking and to be taught. Maier turned out to be no exception in this respect either; he not only wanted to teach, but he wanted to do so through ancient wisdoms. Maier was strongly and emphatically bound by old traditions. Therefore, I felt it necessary, in dealing with this book of emblems, to look especially for the sources. The degree of Maier's dependence on his sources astonished me, as they surpassed my surmises by far. A third problem arose from my preoccupation with the sources of Maier's work, namely the necessary investigation into the mutual connection, if any, between the emblems.

In the *Atalanta Fugiens*, the old and the new are firmly united: on the one hand Maier based his views on mediæval, scholastic traditions and on the other hand—in accordance with the scientific tendency of his own time—he looked critically upon truths that had been handed down and insisted on testing them experimentally. At the same time the *Atalanta Fugiens* is a book which marks the ideals of the Rosicrucians, together with a number of other works from the second decade of the seventeenth century. Maier's work can be considered as a manifesto of the Rosicrucian movement of purification and soul-therapy, which culminates in Mozart's *Zauberflöte*, a masonic manifestation.

In order to come to a satisfactory explanation of the meaning of Maier's emblems, and in order to be able to answer the question of their inner meaning, I had to enter the field of the arcane disciplines, especially alchemy and the phenomenon of the Rosicrucians. It was a result of my study of the history of alchemy up to Maier's time that I was able both to identify the alchemical sources our author used and subsequently to clarify the interconnections between the various emblems.

While I hope to have answered the three questions dealt with in this study satisfactorily, I am conscious of the fact that other problems still require a solution of a detailed treatment. I mention the questions which I have only been able to treat superficially: in my efforts to find out the sense of Maier's emblems I arrived at the history of alchemy in general and the motifs used by the alchemists in particular, motifs which were expressed in alchemy as well as outside it, in works of art. A systematic research of alchemical motifs and their representation in art would need a separate study.

I have left out the treatment of the problems mainly art-historical, especially the question how intensively Merian was involved in the depiction of Maier's ideas. A more profound study of Michael Maier and the people with whom he was in touch, or whose work influenced Maier's views, could contribute to widen the insight regarding the place Maier and similar figures held in the spiritual and social life of their time in Europe. Neither have I dealt with the influence Maier exercised with his writings on later periods, in the field of mystics and cabalistic speculations. I have mentioned the figures of the *Atalanta Fugiens* only in passing. In the sub-title of the *Atalanta Fugiens*, Maier makes it clear that he valued music as being equivalent to the word; the two senses which he expressly mentions are sight and hearing, and he stresses the point that the human soul, mind and senses—each in their own way—serve to take in the secrets of Nature. The value Maier set on the symbolism of numbers undoubtedly played a decisive part in his choice of music, the only art which, on account of its numerological foundation, formed part of the mediæval *artes liberales*. An investigation into the hidden symbolism in Maier's fugues probably lies more in the field of the musicologist.

## ABBREVIATIONS AND INDICATIONS

*Art. Aurif.* = *Auriferae Artis, quam Chemiam vocant Antiquissimi Authores*,  
see bibliography sub *Artis Auriferae*;  
quotations and references are from the edition Basel  
1572, 2 vol.

*Theatr. Chem.* = *Theatrum Chemicum Praecipuos Selectorum Auctorum Tractatus De Chemiae Et Lapidis Philosophici Antiquitate continens*, see bibliography sub *Theatrum Chemicum*;  
quotations and references are from the edition Strasbourg 1659-1661,  
6 vol.

*Mus. Herm.* = *Musaeum Hermeticum Reformatum et Amplificatum*,  
see bibliography sub *Musaeum Hermeticum*;  
quotations and references are from the edition Frankfurt  
1678, 1 vol.

Data about the alchemical authors or writings, mentioned by Maier, and about the sources he used for the mottos and epigrams are listed in the bibliography. These sources are marked \*.

Further data and literature about these sources in Denis I. Duveen, J. Ferguson, H. Kopp, G. Sarton, K. C. Schmieder, L. Thorndike (see for this the bibliography s.v.).

The texts placed in brackets, e.g. when summarizing the discourse or in mentioning the sources, do not occur in the source cited, but are additions of H. M. E. de Jong.

Figures nos 1 to 50 correspond to the emblems nos 1 to L from the *Atalanta Fugiens*.



TRANSLATION OF THE TITLE-PAGE (*Fig. 51*)

THE FLEEING ATALANTA

which means

NEW CHEMICAL EMBLEMS

regarding the

SECRETS OF NATURE

partly suitable for the eye and the mind,  
by means of copper-plates and the mottos,  
epigrams and annotations accompanying them,  
partly suited to the ear and the refreshment of the soul,  
by means of fifty musical fugues for three voices,  
of which two correspond to a simple melody,  
which is suited to be sung in strophes of two lines;  
emblems, which lend themselves to being looked at, read,  
contemplated, comprehended, judged, sung and listened to  
with particularly great pleasure:

by

MICHAEL MAIER,

Member of the Imperial Consistory, Doctor of Medicine,  
Knight of the Corps d'élite, etc.

1617

printed at

OPPENHEIM

by Hieronymus Gallerus, at the expense of Johannes Theodor de Bry

## INTRODUCTION

### BIOGRAPHICAL AND BIBLIOGRAPHICAL DATA ABOUT MICHAEL MAIER

The *Atalanta Fugiens* is Maier's main work. A starting-point for an analysis of this work can be made with data out of Maier's life and about people whom he met; one may also take Maier's work—leaving the *Atalanta Fugiens* out of consideration—as a basis for an interpretation; naturally one may also start exclusively from the *Atalanta Fugiens* itself and that in two ways: by looking, reading, contemplating and judging, as Maier advises his readers to do in the sub-title of the *Atalanta Fugiens*, or by inquiring further into the names mentioned by Maier in his discourse. I have applied this latter starting-point in analysing the emblems separately. However, whatever starting-point is chosen, they turn out to supplement each other. Therefore I follow this up with a concise description of the first two points.

Michael Maier was born at Rendsburg in Holstein in 1568. He was a Protestant, studied at Rostock and took his degree as a doctor of medicine there in 1597. Afterwards he devoted himself to the practice of medicine for a number of years and was summoned to Prague by the Emperor Rudolph II in 1608, to become the latter's court physician; soon afterwards he was appointed private secretary and admitted into the Imperial Consistory and honoured with the title of Count Palatine. After the death of Rudolph II, Maier left Prague. After that he stayed for a long time in England. From 1616 he was in Germany and in 1619 he became court physician of Moritz of Hesse. He died at Magdenburg in 1622.<sup>1</sup>

Maier's personal appearance is known to us from a portrait-engraving, occurring in Maier's *Symbola Aureae Mensae* (1617) and in the edition of the *Atalanta Fugiens* of 1618 (Fig. 52). It shows a man of middle age. His age is defined by the inscription "Aetatis suae 49 Ao 1617". This inscription is the only documentation by

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<sup>1</sup> J. B. Craven, *Count Michael Maier, Life and Writings*, Kirkwall 1910.

which it was possible to establish the year of his birth. He was probably of Jewish origin, but professed Christianity, as can be seen from the subheading of his portrait: "Schooling gave me three titles, the emperor granted me three titles, the following things are left to me: to be able to live well and to die in Christ". The subheading further states that Maier was a member of the Imperial Consistory, doctor of Philosophy and Medicine, Count Palatine, knight and former imperial court physician.

As a symbol of his threefold glory, the escutcheon beside his portrait shows a laurel-branch, from which three twigs spring and an eagle is flying up, a symbol taken from alchemy; the eagle is checked in its flight by a toad crawling along the soil and tied to the foot of the eagle by a chain.<sup>2</sup> The coat of arms is crowned by a repetition of the laurel-branch with three twigs and by an eagle with a closed ring in its beak, symbol of eternity and of the circular motion in the Universe.

In *Symbola Aureae Mensae* Maier's portrait is followed by four eulogies on Maier and his honours, and he is advised to continue just like the eagle, the armour-bearer of Jupiter, in order to raise the slow toad from the cold soil. From the texts, it can be seen that the intention is, for the spirit (the eagle) to raise itself and to conquer earthly slowness and heaviness (the toad) by the "art". The "art" is an indication of the alchemical transmutation process in the widest sense, by which the conversion process of lead into gold is understood, but in which fathoming the forces of the Uni-

<sup>2</sup> The chained toad and eagle is an emblem from Francesco Colonna's *Hypnerotomachia Polifili*, Venice 1499, and became famous later by the emblems of Alciati (see L. Volkmann, *Bilderschriften der Renaissance*, Leipzig 1923, p. 43 sq., *ibidem* fig. 8 and 87). Although Maier undoubtedly knew about it, the alchemical emblem of toad and eagle is not necessarily a derivative of this. Toad and eagle occur before the fifteenth century in alchemical symbolism; with Maier they occur in emblem v and XLIII, both taken from earlier sources.

For the toad as emblem of the "Festina Lente", see Guy de Tervarent, "Tortue (II)", *Attributs et Symboles dans l'Art Profane 1450-1600*, Geneva 1958, col. 383 sq.

According to Maier the emblem of the chained toad and eagle originates from Avicenna, with the motto: "Aquila volans per ærem et bufo gradiens per terram, est magisterium". He discusses this and depicts it in *Symbola Aureae Mensae*, p. 199-201, fig. p. 192 (Fig. 53). See also commentary on embl. V.

verse and the purification process of the soul are also included. So this element in Maier's coat of arms<sup>3</sup> points to important factors in Maier's life: efforts of transmutation, of the matter as well as of the spirit; this was the object of the alchemist and the Rosicrucians.

From the subheading under Maier's portrait it is clear that he was in the good graces of Rudolph II. At the Prague court, medicine and alchemy were closely connected with each other. Emperor Rudolph, driven by his own interest in science, astronomy, alchemy, magic and cabbala, collected a circle of interesting people around him: on the one hand brilliant scholars, like Tycho Brahe and Kepler, on the other hand magicians and occultists, like John Dee and Edward Kelley.<sup>4</sup>

After the abdication of Rudolph II Maier left Prague; under Ferdinand II the Counter-Reformation penetrated into the Habsburg countries. It is not exactly known to which country Maier went. He was in Amsterdam and stayed in England for a time, where he came into touch with the ideas of Robert Fludd (1574-1637).<sup>5</sup> Fludd was a physician, interested in natural sciences, alchemy, astronomy and occult sciences. He looked for indications of the natural sciences in the bible and stressed in his books the unity between Macrocosm and Microcosm. It is not known whether Maier and Fludd met personally or whether Maier was influenced by Fludd or the other way round, but it is remarkable that part of Fludd's unfinished work *Utriusque Cosmi Maioris scilicet et Minoris Metaphysica, Physica Atque Technica Historia*, appeared in the same year as the *Atalanta Fugiens*, in 1617 at Oppenheim, and had the same publisher. This work contained a description of the connection between Macrocosm and Microcosm, the influence of the planets and meteors on earth and man, the reflection of Macrocosm in Nature, in mathematics, music, geometry, painting, military science

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<sup>3</sup> I did not succeed in tracing the origin of Maier's escutcheon, but in view of the affiliation, in regard of the motif, with the emblem Maier ascribes to Avicenna (see note 2), it seems probable to me that Maier himself was the designer of his escutcheon.

<sup>4</sup> See R. Gindely, *Rudolph II und seine Zeit*, Prague 1863 and 1865, 2 vol.; and H. C. Bolton, *The follies of Science at the Court of Rudolph II*, Milwaukee 1904.

<sup>5</sup> J. B. Craven, *Doctor Robert Fludd (Robertus de Fluctibus)*, *The English Rosicrucian Life and Writings*, Kirkwall 1902.

and the science of time and motion in astrology and geomancy.<sup>6</sup> After the Fraternity—or perhaps the fictive Fraternity—of the Rosicrucians had become well-known in 1614 by the publication of their first writings, the *Fama Fraternitatis* and the *Confessio Fraternitatis*, Fludd was considered to be one of the most important representatives of the Rosicrucians in England. Fludd as well as Maier defended the Fraternity of the Rosicrucians very convincingly.

There was a second important person whom Maier met in England, the court physician of James I, Sir William Paddy, to whom Maier dedicated his first publication, *Arcana Arcanissima*, a book in which Maier connects classical mythology with alchemy. The book was published without mention of place and date, but the dedication makes us suppose that it was published during Maier's stay in England, probably London in 1614; anyway before 1616, the year in which his book *De Circulo Physico Quadrato*, dedicated to Landgrave Moritz of Hesse, appears at Oppenheim.

A third person whom Maier encountered in England was the alchemist Francis Anthony, the son of a goldsmith, who claimed to have found the aurum potable, usable as a medicine, the method of preparation of which he published under the title *Aurum Potabile*.<sup>7</sup> To him Maier dedicated his book about the confirmation of Mercury as King of all Earthly things; "*Lusus Serius, quo Hermes sive Mercurius Rex Mundanorum Omnium . . . constitutus est*". In this "serious game" Maier, in an allegorical way, treats the polyvalent meaning of Mercury, usual in alchemical literature, which is mercury on the one hand and is considered to be liquid primary matter of the metals, and on the other hand is connected by association with Christ as the Source of Life.<sup>8</sup>

These three figures, chosen as examples, Fludd, Paddy and Anthony, represent the Rosicrucian, the physician and the alchemist, with whom Maier came into touch in England.

In 1619 Maier became court physician to Moritz of Hesse, to whom he had dedicated the above mentioned *De Circulo Physico*

<sup>6</sup> See bibliography sub R. Fludd.

<sup>7</sup> Dr. Fr. Antonie (Francis Anthony) *Aurum Potabile*, printed in: *Collectanea Chymica*, London 1684, p. 73.

<sup>8</sup> See note 20.

*Quadrato* in 1616. Again Maier moved in a circle of people with the same interests. Moritz of Hesse himself was interested in alchemy and attracted alchemists to his Court.<sup>9</sup>

The work of Maier should be seen against the background of these biographical data. His medical-philosophical training defined the level of his education; the surroundings in which he lived—the courts of Rudolph II and Moritz of Hesse—formed a matrix for developing his interests; and the people with whom he mixed and to whom he dedicated his books, stress the fact that Maier was an alchemist, a medical man and a Rosicrucian. These circumstances can be considered as a starting-point for interpreting the problems of the *Atalanta Fugiens*.

The first edition of the *Atalanta Fugiens* was published at Oppenheim in 1617. The editions of 1617 and 1618 are very rare.<sup>10</sup> Later editions are from 1687 and 1708 and published at Frankfurt under a modified title.<sup>11</sup> In 1964 an excellent facsimile-edition was published, which will undoubtedly contribute to this work being popularized.<sup>12</sup>

The *Atalanta Fugiens* has an illustrated title-page, on which the Garden of the Hesperides and the race of Hippomenes and Atalanta are reproduced, with an epigram of 26 lines related to it on the next page. After that Maier's dedication of his book to the members of the Imperial Consistory at Mühlhausen in Thüringen—especially to the jurist and Imperial Count Palatine Christoffel Reinart—follow, followed by a preface to the readers, a portrait of Maier, and the fifty emblems. Each emblem consists of the usual parts, motto,

<sup>9</sup> Moritz, Landgrave of Hesse-Kassel (1572-1632) was surnamed "the Scientist"; he was a member of the *Fruchtbringende Gesellschaft*, an emblematic academy; he founded the "Collegium Mauritanum" and as a Protestant wanted to unite all Protestant sects. Notwithstanding his reserve regarding religion he was discharged from power in 1627.

Among others, he was the Mæcenas, of Heinrich Schütz (1585-1672), an important German composer in the first half of the seventeenth century.

<sup>10</sup> See M. Praz, *Studies in Seventeenth Century Imagery*, London 1947, vol. II, p. 102; or Rome 1964, p. 410 sq. (in one vol.)

<sup>11</sup> See bibl. sub Maier.

<sup>12</sup> Facsimile-edition of the *Atalanta Fugiens*, after the edition of 1618 (with the exception of Maier's portrait identical with the edition of 1617), published by Lucas Heinrich Wüthrich, Kassel and Basel, Bärenreiter-Verlag 1964, with a postscript.

See H. M. E. de Jong, "Michael Maier's *Atalanta Fugiens* etc.", review in *The Art Bulletin*, 1965, vol. XLVII, no. 1, p. 143-144.

picture and epigram, followed by two pages with discourse each time. The pictures are copper-engravings of Merian the Elder, who, as appears from the agreement of form and style, had contributed to the pictures with the emblems of Maier's book *Symbola Aureae Mensae* (1617) (Fig. 53, 62, 66, 68, 76, 77, 78); further the emblems of Lambsprinck (1625) (Fig. 59, 60, 64, 67, 69, 71, 74, 81) are engraved by Merian.<sup>13</sup> Moreover, the title-page and the *Great Allegory* about Macrocosm and Microcosm from the alchemical collective work *Musaeum Hermeticum* (1625) (Fig. 54) are from Merian's hand. These last two pictures are signed "M. Merian fecit", and correspond in part with motifs from the *Atalanta Fugiens*, for instance, the picture of Maier's emblem XLII, in which Lady Nature is followed by a man with a stick, lamp and spectacles; a motif, which also occurs in an identical form on the title-picture of the *Musaeum Hermeticum*.

Motto, icon, staff notation and epigram of each emblem take two opposite pages in each case. The typographical lay-out is of such a nature that the icon corresponds with the staff notation on the opposite page. On the one page is the Latin text of the motto, with underneath it, the icon, and under the icon the Latin epigram; on the opposite page the motto is printed in a German translation, under it the staff notation (hearing being equivalent to sight) with the first lines of the epigram in Latin text, and under it again the epigram in a free German translation. The Latin discourse, following it, also takes two opposite pages.

<sup>13</sup> Lambsprinck's *De Lapide Philosophico Libellus* appeared for the first time in 1599 in the work of N. Barnaud, *Triga Chemica, De Lapide Philosophico Tractatus Tres*, Leiden 1599, p. 11, without pictures; in 1625 Lambsprinck's emblem booklet appeared at Frankfort with engravings from the hand of Merian.

According to Kopp, *Die Alchemie in älterer und neuerer Zeit*, II, 311 and 318, Lambsprinck and his work, which, according to Kopp, was provided with pictures from the first, date from the first half of the 15th century. M. Maier deals with Lambsprinck's work in *Symbola Aureae Mensae*, p. 272. Although Maier speaks about Lambsprinck's emblems and although he gives a description of a number of them, which are found in the engravings of Lambsprinck's work by the hand of M. Merian, it cannot be definitely established from Maier's text that Maier set eyes on Lambsprinck's pictures. As long as no illustrated text of Lambsprinck from before 1625 is found, it is only sure that Lambsprinck's text was known to Maier and served him, among others, as an example of a number of his emblems in the *Atalanta Fugiens*.

The aesthetical quality of the book, the well-considered typographical lay-out, the paradoxical character of the pictures, as, for instance, of emblem xvii, in which the contrast between a quite common river-view with the chain of four fire-balls in the air suggests a relation between Nature and Supernature, ensure the book a worthy place among emblem books.<sup>14</sup>

As second starting-point for an approach to the emblems in the *Atalanta Fugiens* I mentioned, beside the data from Maier's life, are his works. It is not the intention of this work to devote a complete discussion to Maier's other works, but to bring their characteristics to the reader's notice.

Maier's first book was *Arcana Arcanissima* (London, about 1614). In the full title Maier explains to us that these secrets are Graeco-Egyptian hieroglyphs, the meaning of which is not known to the people, but which he will reveal, to show the real origin of the gods, goddesses, heroes, loving couples and institutions of Antiquity, which are wrongly considered to be sacred. They are, however, derived from the one Egyptian "art", directed to the "gold of the soul and the medicine of the body". Out of that art, Maier says, the allegories of the poets, the fables and the errors, which occur here and there in encyclopædic work, can be explained, "in the crystal-clear light of the truth".

Maier starts from the traditional point of view that the origin of alchemy lay in Egypt, the "art" revealed by Hermes to his priests, by which the transmutation of metals was understood, which was made possible by a complete insight into the laws of matter and into the structure of the Universe. According to Maier, this knowledge passed, in the shape of mythological figures, to Greece, Rome, the Arabic world and afterwards to Western Europe.

Maier sets himself to give a detailed alchemical explanation of classic mythology in *Arcana Arcanissima*. Also in the *Atalanta Fugiens* he devoted a number of emblems to this (embl. xii, xxiii, xxxv, xxxix, xli, xliv, xlix).

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<sup>14</sup> The *Atalanta Fugiens* is mentioned by W. S. Heckscher s.v. "Emblem, Emblembuch", *Reallexicon zur deutschen Kunstgeschichte* 5 (1959), col. 180-184, arranged among category III, A, 6, as an emblem book with didactic, encyclopædic, cosmographic tendency; and under category III, A, 15 as an emblem book with didactic, encyclopædic, alchemical tendency.



This conception of Maier was not new. For ages the seven known metals were connected with the seven planets and indicated by the names of Gods; lead—Saturn, copper—Venus, iron—Mars, tin—Jupiter, mercury—Mercury, silver—Luna, and gold—Sol. From the beginning there exists in the alchemical writings a close connection between exoteric alchemy, which is directed to making gold, and esoteric alchemy, which starts from Neoplatonic ideas and bases its allegories on figures from the mystery cults. As such Isis, Osiris, Demeter, Adonis etc. occur in connection with alchemy. In Arabic alchemy these motifs fall into the back-ground, but are not completely lost; in the first half of the fourteenth century Petrus Bonus writes in his *Margarita Pretiosa Novella*<sup>15</sup> that Homer, Virgil and Ovid are among those who have handed down hermetic wisdom. And, to mention a single example from the sixteenth century, W. Mennens, author of the alchemical *Aureum Vellus*, who asserts the same and calls his treatise "aureum vellus" after the Golden Fleece of Iason,<sup>16</sup> and at the same time after the Fleece of Gideon,<sup>17</sup> as he says in his preface to the reader.<sup>18</sup> This trend also continues after Maier's death up to, and into, the eighteenth century, undoubtedly under the influence of Maier's *Arcana Arcanissima*.<sup>19</sup>

<sup>15</sup> Petrus Bonus, *Margarita Pretiosa Novella*, 1330, in: *Theatrum Chemicum*, V, p. 639.

<sup>16</sup> The Golden Fleece of Jason is explained by Suidas in the 10th century in the latter's *Lexicon* s.v. Δέρμας as "a book, written on sheep's skin, teaching how gold should be made in a chemical way. The people of the time called this skin a golden one in virtue of the process written on it", see A. J. Hopkins, *Alchemy Child of Greek Philosophy*, New York 1934, 197 and Appendix V.

<sup>17</sup> The association with the Fleece of Gideon is based on Mary. The Fleece of Gideon is a prefiguration of Mary; she conceived Christ in a way as the pure dew descended from heaven into the Fleece of Gideon. The alchemists draw a parallel between Christ and the Philosopher's Stone and between Mary and the retort in which the Stone is formed. Just as the dew descends into the Fleece of Gideon, the purified matter, which first rises as vapour up to the top of the alchemist's retort, descends in the retort in a condensed form. (The Fleece of Gideon, *Judges* VI, 36-40; liter. about Mary see Honorius of Autun, Molsdorf, Timmers, Réau, Vloberg).

<sup>18</sup> *Theatr. Chem.*, V, 244.

<sup>19</sup> E.g. Jacob Toll, *Fortuita, In quibus, praeter Critica nonnulla tota fabularis Historia Graeca, Phoenicia, Aegyptiaca, ad Chemicam pertinere assertitur*, Amsterdam, 1687; and A. J. Pernety, *Les Fables égyptiennes et grecques, dévoilées*, Paris and Berlin 1758 (and 1786 and 1795).

In 1616 appeared Maier's *De Circulo Physico Quadrato*, which I have mentioned, in which he deals with the important place that gold takes in the world and the great medical effect gold has on the human heart. He establishes a concordance between the human hearth, as the centre of the human body, the gold as the perfect centre among the metals, and the sun, as the centre of the planets. Between them there exists a circular connection, by which man and God are in touch with each other: God gives strength to the Sun, the latter ripens the metals in the bowels of the earth into gold, the gold strengthens the human heart, and on account of this, man can live and turn with his living soul towards God. At the same time in 1616 his *Lusus Serius* appeared; this contained an allegory about Mercury, who reigned on earth as King over men and things. In this allegory Maier uses the motifs connected in alchemy with Mercury. The meaning of Mercury in alchemy stretches from mercury (*mercurius*, *argentum vivum*) as an entity from which all metals take their origin, to primordial water (on account of the lasting liquid state of mercury), from which Creation arose, and to the waters of destruction, in which the soul perishes and to the Water of Life. In this last meaning lies the association Mercury-Christ.<sup>20</sup>

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<sup>20</sup> *Mercurius* is the mercury, in which the metals have to be dissolved, reduced to the primary matter before they can become gold. Mercury is water because of its continuous liquid state. In the meaning of water it is polyvalent; it is the primordial water, the water of death, in which metals decompose; and it is the water of resurrection, from which metals, converted into gold, rise again. Mercury is also the winged messenger of the Gods, mediator between heaven and earth. Mercury is a mystery; it is the beginning and the end.

This meaning of Mercury already becomes evident from Greek-alchemical writings. Zosimos writes about mercury, "the divine water", as follows: "It is the divine and great mystery; it is the object one is looking for. It is the Universe. From it the Universe proceeds and by it the Universe exists. Two natures, one Being. . . It is the mercury and the philosophical Mercury, it is the hermaphrodite, who is eternal, who is attracted by its own elements. It is the divine water, not known by the whole world . . . ."; the text is printed in M. Berthelot, *Coll. des Anc. Alch. Grecs*, vol. I, Trad. Zosimos III, IX, p. 146, and vol. II, 143-144.

Later alchemists developed this idea and connected Mercury with the water over which the Spirit of God hovered (*Genesis*, I, 2), with the depths of the water, into which the soul sinks (*Psalms* 69, 2, 3 and 15),—on account of the next verse (*Psalms* 69, 4), this also refers to the sea, in which the king is drowned in emblem xxxi of the *Atalanta Fugiens*—and finally with the

In 1617 two of Maier's books appeared, in which two opposite aspects of alchemy are emphasized. In the one book, "*Symbola Aureae Mensae Duodecim Nationum*", "The symbols of the golden table of 12 nations", a symbolic banquet, Maier describes the alchemical Wise Men. In the other book, "*Examen Fucorum Pseudo-Chymicorum*", "Examination of the falsifications of the pseudo-chemists", he describes the alchemistic Fools.

*Symbola Aureae Mensae Duodecim Nationum* contains the history of alchemy from its legendary origin until Maier's time, divided into twelve books, devoted to twelve countries; the alchemists are grouped around a principal figure of their country. They are Egypt, represented by Hermes Trismegistus; Palestine, represented by Maria Hebraea; Greece by Democritus; Rome by Morienus (it is known that the treatise ascribed to this legendary figure was translated from Arabic into Latin in 1144. See bibl. sub Morienus); the Arabic world is represented by Avicenna; Germany by Albertus Magnus; France by Arnoldus of Villanova; Italy by St. Thomas Aquinas; Spain by Raymundus Lullius; England by Roger Bacon; Hungary by an unknown Melchior Cibinensis; Poland, Russia and other Slavonic countries by an anonymous alchemist.

The book has twelve emblems, one of each of the said figures. In the sub-title Maier explains that he wrote the book to rehabilitate the virgin Chemia and the bona fide votaries of alchemy on the one side, and to disprove the poor arguments of the opponents on the other. Further it is his intention to prove that the chemical secrets were known from the oldest times and were continually expressed in the ideas of the great personalities of each period.

In *Examen Fucorum Pseudo-Chymicorum*, in which Maier turns to the opposite group, the Fools, he distinguishes between the blockheads, the ostentatious and the educated frauds, who all have

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Source of Life (*Psalm* 36, 9: "For with You is the Fountain of Life"). Emblem XL of the *Atalanta Fugiens* alludes to this meaning of Source of Life. In alchemical circles "Mercury" was such a significant word that John Baptista of Helmont (1577-1664) gave his youngest son the names: Franciscus Mercurius van Helmont (1618-1699), and he, like his father, was interested in Natural Sciences and Occult Sciences. It often occurs that names given to children have a cultural-historical meaning; thus, for instance, also the name "Margarita"; see for this, W. S. Heckscher, "Is Grete's name really so Bad?", the *Manitoba Arts Review*, IV, 3, 1945, p. 26-32.

this in common, that they have brought the chemical science<sup>21</sup> or the hermetic wisdom into disrepute. He begins by drawing the attention of the illiterate stupid "gold-makers" to the fact that for the making of gold other things are necessary than their superstition and their so-called chemical tests with dung, blood or hairs. He explains to them that chemistry and the allegories used in it, are based on a combination of many sciences, for which great wisdom, great erudition and an ethical attitude towards life are required.<sup>22</sup> The foundations on which chemistry is based are, according to Maier: the art of poetry, which deals exclusively, but in a hidden form, with chemistry and is supported by grammar, rhetoric, dialectics, arithmetics, geometry, astronomy and physics. By physics Maier also understands music. So Maier bases chemistry on the artes liberales, just as the alchemists living in the centuries before Maier. Considering that mediæval man, and consequently the mediæval alchemist, thought of the artes liberales—beside the Holy Writ—as the only way to knowledge, and from there to Theology,<sup>23</sup> it becomes clear that Albertus Magnus and St. Thomas Aquinas take an important place in the history of alchemy, which can also be seen from *Symbola Aureae Mensae Duodecim Nationum*. Apart from the artes liberales,—Maier continues his instruction of the illiterate "puffers"—medicine is of exceptional importance and beside it chemical metallurgy, i.e. the science of fire, minerals, ores,

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<sup>21</sup> Maier rather uses "chemical" than "alchemical," a word which in Maier's time was too much connected with deceit. But as Maier bases his work on sources from a time in which a distinction between chemistry and alchemy was not yet made, and Maier aims at the same object as his predecessors, I mainly use the word "alchemy".

Maier reproaches the alchemists for making falsifications instead of bringing about a real conversion of the metals: ". . . . . tum chymia, non Alcumia illa, (tot nebulorum matrix et deceptionum mater, quæ metalla adulterat et non vere transmutat) sed quæ medicinæ aureæ producendæ inservit, Antiquissima et Verissima . . . . .", says Maier in his *Arcana Arcanissima* (1614), (unnumbered p. 4).

<sup>22</sup> *Examen Fucorum Pseudo Chymicorum*, p. 13 sq. This particular ethical attitude to life is clear, for instance, from the rule of the Rosicrucians that the Brethren must give medical assistance as much as possible, free of charge, and from the admonition to discern the laws of Nature in oneself; see note 24.

<sup>23</sup> Maier stresses a connection between the artes liberales and the Holy Writ in the emblems xxvi and xxvii of the *Atalanta Fugiens*, which form the centre of the book.

metals, alloys and colour processes. Finally, with a quotation from Geber's *Summa Perfectionis*, Maier stresses the necessity of discerning the principles of Nature in one's self, as a condition for making progress in "art".<sup>24</sup>

The second group of impostors, upon which Maier turns in *Examen Fucorum Pseudo Chymicorum*, are the lovers of ostentation, who display great riches, giving the impression they owe their fortune to the art of alchemy, while in reality they obtained their wealth by left and deceit. They try to impress people by expensive clothes and gold and silver instruments and a large staff. But when everything is squandered, they are gone (*Ex. Fuc.*, p. 11), Maier ridicules them and wonders why they exert themselves so much to sell their recipes for the transmutation of metals; for if they really knew the art of making gold out of lead, they could make for themselves as much gold as they wanted (*Ex. Fuc.*, p. 20). He who wants to appear more than he is worth cannot be a good chemist, for the characteristic of the true chemist is that he devotes all his energies to virtue and abhors vice (*ditto* p. 29). In this respect also, the true alchemist and the Rosicrucians agree.

The alchemists whom Maier attacks most violently, are the educated people who in a clever way abuse their knowledge in order to distort the truth. Maier goes through the reports of the transmutations and proves their falsity. He states how sometimes gold and silver arise from a combination, but, he adds, the gold and silver have been present before in that combination in an invisible form and have not newly arisen. He enumerates 47 attacks of this kind. Thus he also attacks Edward Kelley, a famous alchemist, who reaped spectacular results at the Court of Rudolph II, but who later fell into disgrace because of deceit.<sup>25</sup> For Agrippa of Nettesheim Maier also has nothing but scorn.<sup>26</sup> From this it could be con-

<sup>24</sup> *Examen Fucorum*, p. 19, quotation from Geber's *Summa Perfectionis*, cap. I: "Sed scias charissime quod qui principia naturalia in se ipso ignoraverit, hic iam multum remotus est ab arte nostra . . ."

In the Middle Ages Geber was one of the most widely read alchemical authors, see bibliogr. sub Geber and Jābir.

<sup>25</sup> *Examen Fucorum*, p. 41, attack on Edward Kelley; about Kelley see H. C. Bolton, *The follies of Science at the Court of Rudolph II*, Milwaukee 1904, chapter V.

<sup>26</sup> About Agrippa of Nettesheim, see: commentary on embl. 1 of the *Atalanta Fugiens*, see p. 62-63.

cluded that Maier regarded alchemical aspirations with absolute disfavour; but this is not the intention of his argument, for he wants to draw attention to the fact that "the true alchemists who prepare the perfect work themselves, rarely come to the fore and that those who do so are usually not the right ones".<sup>27</sup>

Maier is aware of the often insuperable difficulties which confront the sincere investigators of the secret of the Philosophers' Stone, because of the inaccessibility of some alchemical writings and of the insoluble problems that the chemical reactions in the retort present to the investigators. As a guide for these people Maier wrote *Viatorium, hoc est, De Montibus Planetarum septem Metallorum etc.*, "Guide, id est, a useful and clear writing about the seven planet- or metal-mountains, of which each rational, truthloving man may make use as of a herma at the three-forked roads, as of Ariadne's clue in the Labyrinth, as of the Polar Stars in the immense ocean of chemical errors, in order to investigate into the medicine of the Red Stone, so much desired by the physicians". In this book Maier deals with the connection between planets, metals and the medical effect of them, taking Geber's *Summa Perfectionis* as a starting-point.

From the preface of *Examen Fucorum Pseudo-Chymicorum*<sup>28</sup> we see that Maier thinks in terms of a hierarchy of the alchemists, which he expresses in a comparison with the ascent of the Helicon:<sup>29</sup> few reach the top of the Helicon and the *Symbola Aureae Mensae* speaks about them; others aim at the top with great exertion, but only come halfway and the *Viatorium, De Montibus Planetarum septem seu Metallorum* is written on behalf of those;<sup>30</sup> the others roam over the plane at the foot of the mountain, they are the puffers, who are described in *Examen Fucorum Pseudo-Chymicorum*.

In *Silentium post Clamores* (1617) and *Themis Aurea* (1618), Maier

<sup>27</sup> *Examen Fucorum*, p. 43.

<sup>28</sup> *Examen Fucorum*, preface p. 9.

<sup>29</sup> Maier also uses the ascent of the Helicon as a symbol for the alchemical transmutation process itself, which consists of the matter ascending and descending in the retort; besides Maier uses it as a symbol for the spiritual process and the ascent of the soul to God through the seven spheres (*Atalanta Fugiens*, embl. XII and XXVII).

<sup>30</sup> So *Viatorium, De Montibus Planetarum septem seu Metallorum* is mentioned by Maier in the preface of *Examen Fucorum*. Apparently the edition of 1618, mentioned by Ferguson in his *Bibl. Chem.*, is not the first one.

pays attention to the Fraternity of the Rosicrucians, defending and describing it. The writings which Maier further published, do not deviate—in their purport—from the publications already mentioned. In *Tripus Aureus* he edits the publication of three alchemical writings, of Basil Valentine, Thomas Norton and Cremer, about whom alchemists thought that they had lived in the 14th or 15th century; however, these writings probably date from the 16th century.<sup>31</sup>

Finally I mention *Septimana Philosophica etc.*, which Maier composed in the form of a conversation between Solomon and the Queen of Sabah and King Hiram of Tyrus, discussing the secrets of Nature and alchemy and its allegories for a week. Already in alchemical writings of the Middle Ages<sup>32</sup> Solomon was considered to be an adept in hermetic art because of his riches and his wisdom. The conversation between the three of them, Solomon, Sabah, Hiram, refers to *Chronicles*, II, 2 ff about the building of the new temple, in the place of the temporary tabernacle. At the same time, Maier here alludes to the Fraternity of the Rosicrucians, who, on account of their sincerity, piety, mercy and investigation into the laws of the Universe, are the new temple builders. In accordance with the wisdom of Solomon, who mastered all sciences, the following subjects are dealt with in *Septimana Philosophica*, the philosophical working-days (agreeing with the six days of creation); heaven and the elements on the first day, the planets, meteors and meteorological phenomena on the second day; the ores and minerals on the third day; plants on the fourth day; animals on the fifth day; man on the sixth day.

Summarizing, it can be said about Maier's writings that their contents refer to alchemy and to the thoughts expressed in the manifestos of the Fraternity of the Rosicrucians; the tendency of Maier's work is instructive, defensive, critical and polemical. His starting-point is the conviction that the processes which occur in the retorts of the alchemists are a reflection of the material and spiritual transmutation processes in the Universe and that it must be possible for a serious, modest, pious man to get to know the

<sup>31</sup> J. M. Stillman, *The Story of Early Chemistry*, p. 297.

<sup>32</sup> a.o. Petrus Bonus, *Margarita Pretiosa Novella* 1330, in *Theatr. Chem.*, V, 507-713.

structure of matter and through this to get also an insight into the deepest secrets of Creation and into the relationship between God and his creatures. Because such important matters are at stake in alchemy, it is a sacred science, in which the artes liberales, medicine, mineralogy, philosophy and theology are involved; therefore it is a secret science, which is only intended for the élite of the spirit. Alchemy contains one truth, which has found its expression in the alchemical allegories, a truth also hidden behind the classical legends, which are so distorted by misconception that their original meaning is difficult to recognize. This conviction is also the basis of Maier's enthusiasm for the ideals of the Fraternity of the Rosicrucians, which are founded on this sacred science.

However, the fraudulent practices of many alchemists and the development of the natural sciences in the sixteenth and seventeenth centuries, especially the development of astronomy, which undermined astrological views—one of the points of support in alchemical theories—had roused scorn and scepticism in the circles of outsiders to the art of making gold. The Fraternity of the Rosicrucians, which was orientated more in the mystical-chemical field than in that of practical alchemy—and whose important treatise, written by the Lutheran theologian Johann Valentin Andreae of Württemberg, *Die Chymische Hochzeit Christiani Rosencreutz, anno 1459*, was considered as being a persiflage on the appearing of mystical sects—also evoked criticism. This explains why Maier was so determined to describe the true character of alchemy thereby demonstrating the high age of hermetic wisdom, revealed to Hermes Trismegistus, known by classical and Arab philosophers by mediæval theologians and made known to a wider circle by the writings of the Rosicrucians. At the same time it explains the emphasis with which Maier distinguishes the “puffers” from the true adepts. Maier is critical and points emphatically to the “naturalness” of the alchemical process, which expresses itself in an exact balance between reason and experiment; therefore he rejects black magic and experimentation with all sorts of foreign ingredients, the use of which was based on supposed magical properties or on a wrong, literal interpretation of the ingredients mentioned in the alchemical allegories.

It might be asked whether Maier was exclusively a theoretical



alchemist or also a practical one. There are various considerations which make one think that Maier occupied himself with alchemy only theoretically; in particular his statement in *Examen Fucorum* about the artes liberales and his attacks on three kinds of puffers. Moreover, Maier was kindly disposed to the ideals of the Rosicrucians, who exclusively used the alchemical metaphorical language to express their mystical contemplations; the *Fama Fraternitatis oder Entdeckung der Bruderschaft, des hochlöblichen Ordens des Rosenkreutz* (Kassel 1614), even speaks of "the damned art of making gold, which gains ground rapidly in our time".

However, we have to bear in mind that, till the seventeenth century, alchemy was an "art", in which theory and practice belonged together. As an example of this I mention the *Turba Philosophorum*, which, translated from Arabic in the 12th century, became known in Western Europe; the first part of it is predominantly philosophic-cosmological and the second part is of a more practical nature. Another example is a work from the fourteenth century, which was wrongly ascribed to Raymundus Lullius (see bibliogr.), *Testamentum*, which was subdivided in two parts: *Theorica* and *Practica*. This combination of theory and practice is an essential feature of alchemy; the secret of the Universe manifests itself in the matter.

Maier—while an ardent adherent of the Rosicrucians—exerts himself more than anyone else to determine this movement as being a continuation of the old alchemical tradition, in which, as already mentioned, theory and practice belong together.<sup>33</sup> In the *Atalanta*

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<sup>33</sup> As regards this, alchemy takes a somewhat exceptional position among other sciences, which, in the Middle Ages and early Renaissance, stressed the theoretical side; about 1600 there arises a renewed discussion about the relation of theory and practice, in which practice is accentuated. So, for instance, William Gilbert (1540-1603) transferred his technical knowledge about magnetism, which he obtained from navigation and mining, to the scientific plane; but he did not put forward a theory in science before he had demonstrated it ad oculos in the laboratory; for the problem of the relation between theory and practice see E. Zilsel, "The Origins of William Gilbert's Scientific Method", *Journal of the History of Ideas*, I, 1941, p. 1-32.

W. S. Heckscher, *Rembrandt's Anatomy*, New York 1958, note 79, quotes Zilsel (o.c. p. 26), with approval concerning alchemy in which practice always played a big role, as follows: "Zilsel observed quite rightly that alchemy was a case in point, inasmuch as it was a discipline that for obvious reasons made it obligatory for the adept to do his own weighing, measuring, heating, pouring and testing".

*Fugiens*, in the discourse of emblem XI and of emblem XLII, Maier plainly says that "theoria" as well as "praxis" are necessary for the success of alchemical work: "At philosophi unum absque alio non sufficere dicunt, ingenium acutum absque manuum labore, aut hunc absque illo, ut nec theoriam absque praxi et vice versa" (*Atalanta Fugiens*, p. 54). Maier's quoting the "philosophi" means a complete approval of what is cited. And in the discourse of Emblem XLII is written: "Experientia will be the spectacles, with which the things that are far away can be seen close up; they are the optical instruments invented and made by art, which come to the aid of man's weak eyes and correct them. The experiments with mineral matters equal them".

The most convincing proof that Maier valued practice as highly as theory, appears from the frontispiece of his *Tripus Aureus* (Fig. 55), in which a space is pictured divided in two compartments by a furnace. On the burning furnace a tripod is standing, with a chemical retort, in which a winged snake, symbol of the volatile mercury, is locked. The left part of the space indicates the theoretical part of alchemy; the walls are covered with book-cases and Thomas Norton, Cremer and Basil Valentine—the authors of the writings Maier edits in his *Tripus Aureus*—discuss alchemical problems, as appears from the gesture of one of them towards the retort on the fire. The other side of the room is equipped as a laboratory and this points to the practical side of alchemy. Kneeling near the furnace, a laboratory worker is occupied with looking after the fire.

The factors mentioned indicate that Maier himself was actually involved in practical, chemical experiments.<sup>34</sup> It is another question as to how far Maier was convinced of the possibility of really converting base metals into gold. He was critical towards this, as can be seen from his argumentation in *Examen Fucorum*. He was of the opinion that it was possible to bring about a chemical combination, which approached the quality of real gold, or approached it very closely, but, with Avicenna, he was inclined to deny the real conversion of the species.<sup>35</sup>

<sup>34</sup> Ferguson, *Bibl. Chem.*, II, 66, mentions that Maier was a famous chemist in his time.

<sup>35</sup> See commentary on embl. XVIII from the *Atalanta Fugiens* (p. 155-157). In the discourse of embl. XL (*Atalanta Fugiens* p. 155) Maier states that an artificial chemical combination is not of the same quality as a natural

Maier's opera omnia—and this is the reason why I have paid attention to them—should be consulted again and again, in order to come to a clearer notion of the emblems in the *Atalanta Fugiens*. Maier's books give evidence of an erudition and a strong belief in the connection between science and religion. In this synthesis he is a man, in whom the spirit of the late Middle Ages is alive. In his critical attitude in respect of credulity and magic and in his appreciation of the purely critical, experimental, he represents the period in which science releases itself from restraining religious ties; the period, in which science develops out of pseudo-science. I discern in this figure a discord, which he tries to bridge by uniting old alchemical traditions and a critical-scientific adaptation, by which he endeavours to separate sense and nonsense.

Maier's *Atalanta Fugiens* was a striking book on account of its emblems, of a tutorial, but also of a reserved character. Both trends are in accordance with the intentions of the Rosicrucians; the reserve especially with that of the adepts of the hermetic wisdom of generations previous to Maier, although the Rosicrucians did not reveal all their secrets either, as "no pearls should be cast before swine."

The *Atalanta Fugiens* complies with the twofold task of propaganda and reserve also by the form which Maier gave to the book: the emblem book. On account of that it drew, more than most other alchemical books, the attention of an educated public, which was accustomed to dealing with emblem books, and at the same time it formed a barrier, preventing those who were not familiar with alchemical allegories from completely understanding the intention. In the preface Maier himself says about it (*Atalanta Fugiens* p. 8):

"Behold, we have connected that which is Visible with that which is Audible, and the sensory perception with reason; that means we have connected things, which are remarkable to sight and hearing, with chemical emblems, which belong to this science. For when the other arts give emblems, about morals or about other things than about the secret of nature, this seems alien

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combination, because the matters do not penetrate each other up to and into the smallest parts: "De substantiarum mixtione artificiali constat, quod non per minima se invicem ingredientur, quamvis humana industria iterum ab invicem discerni ac separari nequeant". See bibliogr. sub Avicenna.

to their aim and ultimate object, as they want to be, and should be, comprehensible to all, and that is not so with the chemical emblems. . . ."

Therefore it is not astonishing that the idea of an emblem book occurred to Maier. The *Atalanta Fugiens* is one of the finest alchemical emblem books, and, by the combination of emblems and fugues, unique. Another alchemical treatise, highly valued by Maier, was Lambsprinck's *De Lapide Philosophico Libellus*, first printed in 1599 and published in a Latin edition in 1625 with engravings executed by Merian.<sup>36</sup> Further the work of Basil Valentine, *De Magno Lapide Antiquorum Sapientium*, edited by Maier in *Tripus Aureus*, was of an emblematic nature, in spite of the fact that motto and epigram have been replaced by a longer text. Emblematic representations also occur in the *Rosarium Philosophorum*. The emblematic representations in the printed editions. Also in the *Rosarium Philosophorum* emblematic representations occur. The emblematic representations in the printed editions sometimes originate from the manuscripts; thus, for instance, a number of pictures from *Pandora: Das ist, Die edelste Gab Gottes* (1582) originates from the alchemical manuscript, the *Buch der Heiligen Dreifaltigkeit*.<sup>37</sup>

When, in non-alchemical emblem books, alchemy is mentioned, it is mainly with a sneer, as appears from J. van der Veen's *Adams Appel* (1642),<sup>38</sup> in which alchemy is reckoned among the vices with the motto:

<sup>36</sup> See note 13.

<sup>37</sup> *Das Buch der Heiligen Dreifaltigkeit*, München, Bayer. Staatsbibl. Cod. Germ. 598, from 1420.

Two other alchemical manuscripts with pictures—mostly in symbolic colours—of the alchemical king, the hermaphrodite, the leper metals and further alchemical symbols, which also occur in the printed alchemical emblematic representations, are:

*Aurora Consurgens*, Leiden, Univ. Bibl., Cod. Vossianus Chemicus, no. 29, 16th century. The manuscript mentions St. Thomas Aquinas as the author; time of origin before about 1450. The picture of embl. xi from the *Atalanta Fugiens* is inspired by a picture from the *Aurora Consurgens* (Cod. Voss. Chem., folio 43 v).

A third important alchemical manuscript with coloured pictures is *Splendor Solis*, London, Br. Mus., Harleian ms. 3469, 16th century; the original is ascribed to Salomon Trismosin 1490.

<sup>38</sup> Jan van der Veen, *Zinne-beelden oft Adams Appel*, Amsterdam 1642

"The greed for gold is a terrible plague,  
Much worse than a stomach ache".

The picture shows a farm with a child chasing birds:

"Celui qui biens et temps pour l'or en vain consume,  
Pour le Demon la lampe ou le flambeau allume".

The alchemists' work is considered to be as useless as the efforts  
a child makes to strew sand on a bird's tail:

"Still worse is the business of the shrewd alchemists,  
Who squandre knowledge, time and sense, and waste gold for gold,  
Who are continually fed by hope, year after year,  
And, in their imagination, they have already the goods of a Prince  
The Philosophers' Stone, called Philosophorum,  
Is impressed upon the soul, it is fiat clink-clank clorum,  
Suddenly some glass explodes on the fire —  
O dear! What are we to do? an earldom in ashes".

After a further description of the alchemist and his work he adds:

"There is a greater treasure (than the Lapis)  
O you uninventive blind men;  
If you want to look for it, under divine guidance,  
It is God's Kingdom and his justice,  
Which is invaluable and safe to find".

This is one of the examples, how alchemy was judged in non-  
alchemical emblem books. We find such a way of ridiculing the  
alchemical practices in Ben Jonson's *The Alchemist* (1610). More-  
over, he there includes alchemical speculations in the field of music.

It is really no wonder that Maier, who cared so much for exoner-  
ating alchemy from all blame the "puffers" had given it, takes up  
the gauntlet and uses the instrument that was handled in intellec-  
tual circles of his time to bring to notice ethical, moral and religious  
views: the emblem book.

However much disputed and jeered at, there were deeper forces  
active in alchemy than exclusively the greed for gold: forces and  
convictions, from which, in spite of repeated failure, alchemists  
took courage to continue their search for the Lapis Philosophorum;  
in Maier's time alchemy was already based on a tradition of more  
than one and a half thousand years.

## THE HISTORY OF ALCHEMY

The period from which alchemical writings are known ranges from the 2nd century B.C. till the end of the 18th century; that is the moment in which scientific chemistry begins to develop, along lines deviating from the alchemical elements theory. Modern chemistry is based on the work of figures like Antoine Lavoisier, Joseph Black and Joseph Priestley. They arrived at an exact notion of the elements, out of which matter is composed and discerned the true ins and outs of the process of combustion, and the part of oxygen therein; the alchemists were of the opinion that in combustion the combustible element fire, which was considered to be present in every substance, escaped from the combination. From 1780 onwards, the rôle of alchemy is played out, as a consequence of the new views. The difference between alchemy and chemistry is that alchemy distinguished the substances by the quality in which fire, earth, air and water (taken as the four elements from which all substances are composed) were present in the combination, and the chemistry thinks in quantity and weight. Alchemy may be seen the first, qualitative phase of modern, quantitative chemistry.<sup>39</sup>

Just as chemistry, alchemy is a science, in as far as their common starting-point is obtaining data from Nature, arranging them, drawing conclusions therefrom and building theories on them. In contrast to magic practices, which tried to break through the laws of Nature by means of magic formulae, the alchemists always aimed at discovering, theoretically and practically, those laws of Nature, by imitating the forces which are active in the Cosmos, in their retorts. That, at the end of the 18th century, chemistry used other, more exact theories, by which a rather late, but very rapid development took place, was the consequence of an intensive, appropriate examination of matter; an examination which was also prepared by the stubborn, centuries long search of the alchemists.

That alchemy and chemistry have different philosophical and religious backgrounds is a phenomenon that also appears in the history of other sciences. Alchemy was a Natural Science and a Natural Philosophy, and was overgrown in the course of its long

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<sup>39</sup> R. J. Forbes, "Modern Chemistry and Alchemy", *Ciba Review* 5 (1961) p. 2-16.

history by gnostic, mystical and allegorical elements. In some periods this was more obvious than in others; I will only mention the work of the Alexandrian-Greek alchemist Zosimos from the fourth century, or of the alchemist Stephanos and his school in the seventh and eighth century, or the alchemists in the course of the seventeenth century. The time of Stephanos and the seventeenth century correspond to each other, because at those times the writings of the alchemists almost exclusively use alchemical allegories in order to express religious intentions.

However, no matter what period they are from, the alchemical sources on the whole are not particularly clear. Nevertheless, handed down from generation to generation, they form a source for the alchemists, for their theory as well as for their practice. The reason is to be found in the position the alchemists were in respect of their predecessors; they thought that the Egyptians once knew the secret of the Philosophers' Stone, with which the transmutation of metals could be brought about, and that at the same time, they, or at least a privileged group among them, had had a complete insight into the structure of the Universe, and that that knowledge had been handed down in the alchemical writings from the oldest times. That is why words ascribed to Hermes or to the "philosophi" are weighed and tested and why they give cause to ever repeated commentaries.<sup>40</sup>

The word "alchemy" originates from the Arabic word "alkimia." By this word, of which "al" is the article, the art of metal transmutation was indicated. That our word "alchemy" has been derived from the Arabic word "alkimia" shows how strong the influence of Arabic alchemy was on Western European Latin alchemy, in which the art of transmutation was called alchemia, alchimia or chimia. In Greek-alchemical writings the word alchemist does not occur, but σοφός, φιλόσοφος, τεχνίτης or προφήτης are used here. In Suidas' *Lexicon* the word chemeia s.v. χημεία occurs for the first time. The origin of the word is not clear. At all events the possibility that it is derived from the Old Egyptian "k.m.t" (Copt.kēme), which means "black", is

<sup>40</sup> See as introductory literature about alchemy: J. Read, *Prelude to Chemistry*, London, 1936; E. J. Holmyard, *Alchemy*, Edinburgh 1957; F. Sherwood Taylor, *The Alchemists*, New York 1949.

rejected; this word is usually used in the meaning of the "black earth" of Egypt, so called in contrast with the red colour of the desert. Of the hypotheses about the origin of the word *χημεία* that of Diels<sup>41</sup> is most approved of. He derives it from *χῦμα*. This hypothesis is supported by the fact that the melting of metals and the making of metal alloys plays an important part in Greek-alchemical writings.<sup>42</sup>

Although a mention of alchemy in China is known from the same time as in the West, it is an established fact that the most important line of development of alchemy started from Hellenistic Egypt, from Alexandria and from other towns in the Nile-Delta.

Chinese alchemy had a strongly mystical character—under the influence of Taoism—which was in strong accordance with the alchemical mysticism from the West. Besides, the Chinese emphasized the point of preparing the medicine of immortality, the elixir of a long life, the theory about the contrasts, and not so much the preparation of the gold itself. It is possible that Chinese alchemy influenced later Arabic chemistry, which also paid much attention to the aurum potable and the elixir of life. The earliest known piece of information about Chinese alchemy dates from the 2nd century B.C.; it concerns an imperial edict from 144 B.C., in which coiners of alchemical gold are threatened with public execution. The nature of this information implies that a long alchemical tradition must already have existed.<sup>43</sup>

The earliest document about alchemy in the West is the book about the secrets of Nature by Bolos Democritos of Mendes, about 200 B.C. However, many factors contributed to the rise of alchemy. The contribution of Egypt in this was twofold. On one hand it enriched the theories and allegories of the alchemists by the veneration

<sup>41</sup> H. Diels, *Antike Technik*, Leipzig 1920, p. 130 sq.

<sup>42</sup> R. J. Forbes, s.v. "Chemie", *Reallexicon für Antike und Christentum*, 1954, II, col. 1061-1073.

<sup>43</sup> See about Chinese alchemy: E. J. Holmyard, *Alchemy*, Edinburgh 1957 p. 31-40; O. S. Johnson, *A Study of Chinese Alchemy*, Shanghai 1928; A. Waley, "Notes on Chinese Alchemy", *Bulletin of the School of Oriental Studies*, London Inst. 6, (1930), I, p. 11; A. Waley, *The travels of an alchemist: The journey of the Taoist Ch'ang ch'ung from China to the Hindukush at the Summons of Chingiz Khans*, London, 1931; T. L. Davis, articles in *Isis*, 1932, and *Journal of Chemical Education*, 1934; H. H. Dubs, "The beginnings of Alchemy", *Isis*, vol. 38, part III and II2.



of Isis and Osiris, of the Sun and the Nile (symbols of life and death, rise and setting, growth and decay). On the other hand the practical knowledge of many techniques, which had developed before the rise of alchemy under the influence of many Greek, Persian, Babylonian, philosophical and religious trends, played an important part in the origin of alchemy. In Greece, the development of these techniques was hundreds of years old, and in the East thousands of years, and they yielded a wealth of data. The remarkable thing about chemical techniques is that the expression of them points to their origin from the kitchen. Expressions about cooking washing etc. remain a part of the daily usage, also in later alchemical writings.<sup>44</sup> The development of the techniques of preservation, such as drying, smoking, salting, was important as well as the knowledge obtained in mummifying; further, pharmaceutical and medical techniques, based on vegetable and animal materials. The development of the cosmetic industry and the preparation of aromatic matters, first for religious purposes and later for profane use, helped to develop chemistry and through that to the rise of alchemy. Metallurgy developed by purifying, melting and alloying ores and metals and had great influence on later alchemy. In Hellenistic times, the possibility was added of winning mercury and the refinement of paint and colour techniques; the winning of purple from murices was a prosperous industry.<sup>45</sup> The empirical development of the chemical techniques without as yet being supported by a theoretical natural science yet, collected an extensive factual knowledge, which was the foundation of early chemistry. Moreover, in these technical foundations of chemistry, thoughts are present which are united into a system in early chemistry, and are characteristic for alchemical conceptions. The working methods applied were calcination, changing a solid matter into fine powder by heating; further melting, crystallizing and distilling. The idea that each change was possible, if the heat of the fire could only be forced up high enough, caused the alchemists to set a high value on fire and to experiment with various kinds of furnaces. Upon this also the word "puffer" or

<sup>44</sup> Even in Maier's *Atalanta Fugiens*, where in emblems III and XXII the alchemical magisterium is represented as women's work, consisting of washing and cooking.

<sup>45</sup> A. Lucas, *Ancient Egyptian Materials and Industries*, London 1948. R. J. Forbes, *Studies in Ancient Technology*, Leiden, 1955-1963, vol. I-VII.

“souffleur” is based, a nickname from later times, used for the alchemist who was busy blowing the fire with bellows.

Beside the development of the techniques in Egypt, astronomy and astrology made important contributions to the formation of alchemy. This takes us to Mesopotamia. Astrology, which tries to establish the character and fate of people from the position of the sun, moon, planets and stars at the time of their birth, was a late form of astrology, the oldest document of which date from 568 B.C. during the reign of King Nebuchadnezzar. This was preceded by a development since old-Sumerian times, in which the visible celestial and meteorological phenomena, like comets, rain-bows and such, were considered to be forewarnings of coming events. About 1000 B.C. Assyrian and Babylonian priests drew up lists of “astrological phenomena”, the celestial omnia, which, however, were part of many forms of prophecies, which were maintained in classical times as well as in the Middle Ages, but had little influence on the development of astronomy. The horoscopic astronomy, which was based on the belief in invisible forces linking planets and men, could only develop, when astronomical knowledge had progressed so far that the rotation periods of the planets could be calculated and the division of the zodiac—the imaginary course the planets complete—had been subdivided into twelve houses. Astrology had a religious character. The planets were considered to be divine, and the supposed influence of planets and stars on earthly situations implied a belief in the connection between Macrocosm and Microcosm. This old-Babylonian belief was strengthened by the Persian *Avesta*, according to which the human soul descends from a star into the body at its birth and returns to it after death. According to the relation heaven-earth, the celestial bodies were associated with plants, metals, minerals and stones specially belonging to them.<sup>46</sup>

A third factor—beside the influence of chemical techniques and conceptions about astrology influenced by eastern religions—which contributed to the rise of alchemy, is Greek philosophy, Democritus theory of the elements, Aristotle and views taken from Plato's *Timaeus*.<sup>47</sup>

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<sup>46</sup> F. Boll, *Stern Glaube und Sterndeutung*, Berlin 1926; O. Neugebauer and H. B. van Hoesen, *Greek Horoscopes*, Philadelphia 1959.

<sup>47</sup> A. J. Hopkins, *Alchemy Child of Greek Philosophy*, New York, Col.

Hellenistic Alexandria, where these trends came together, was soon the focus of a new science, alchemy. The earliest known alchemical work in which the above factors mentioned occur, is the book about the secrets of Nature by Bolos Democritos of Mendes, one of the first leaders of the Neopythagorean school. His *Φυσικά και Μυστικά* is dated about 200 B.C. and describes in four books the making of gold, silver, precious stones and purple. His data are from Egyptian, Babylonian, Persian and Jewish sources. His work is distinguished from the recipes of the common artisan by the interest in the transmutation possibilities of substances, in which changes in colour were regarded as a feature of an essential change. Beside irrational elements, the main thought of the Ionian Natural Philosophy was also inserted into his work: the idea that substances come from one primary matter, and that changes result from a change of four qualities. That is why Bolos Democritos tries to dissolve the "spirit" of his substance and transfer it to another substance.

Two centuries after Bolos Democritos the latter's work was commented upon in a Neopythagorean sense by Anaxilaos of Larissa in his treatise about "colouring".<sup>48</sup> Another document consists of two papyri, which were been found in a tomb at Thebes together with magic papyri. They date from a time about 300 A.D. and are partly kept at Leiden, partly at Stockholm and called after that the *Papyrus Leidensis*<sup>49</sup> and the *Papyrus Holmiensis*.<sup>50</sup> The latter comprises 152 recipes for making silver, precious stones and for winning purple, the former deals also, with gold alloys. At first sight the recipes seemed to be purely practical instructions, but on second examination they appear to be parts of a more extensive work about alchemy.

A more convincing indication that alchemy was practised in the centuries after Bolos Democritos, appears from the work of the

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Univ. Press 1934; I. H. Jensen, *Die älteste Alchemie*, Copenhagen, 1921; F. Sherwood Taylor, "A Survey of Greek Alchemy", *Journal of Hellenic Studies*, 50, (1930), p. 109 sq.

<sup>48</sup> H. Diels, *o.c.*, 135; J. Bidez and F. Cumont, *Les mages hellénisés*, Paris 1938, I, p. 201 sq., II, p. 311 sq; M. Wellmann, "Die Physica des Bolos von Mendes und der Magiër Anaxilaos aus Larissa", *Abhandl. der Berl. Akad.*, phil. hist. Kl. 1928, 7.

<sup>49</sup> *Pap. Gr. Leidensis X*, edited C. Leemans *Pap. Gr. Mus. Lugd. Bat.*, 2, (1885).

<sup>50</sup> *Pap. Gr. Holmiensis*, edited, transl. and commented, O. Lagercrantz, Uppsala 1913.

Greek-alchemical author Zosimos of Panopolis, who, about 300 A.D., wrote an encyclopædic work in 28 books about alchemy. In the writings of Zosimos one finds an almost overwhelming mixture of Egyptian magic, Greek philosophy, gnosticism, Neoplatonism, Babylonian astrology, Christian theology and pagan mythology, mixed with alchemical, allegorical ways of expression.<sup>51</sup> He describes the transmutation of metals in visions of death, mutilation, resurrection and enlightenment of the spirit.<sup>52</sup> A quotation may illustrate the character of Zosimos' way of writing:

"I fell asleep and saw a sacrificing priest before me, on top of a bowl-shaped altar. Fifteen steps led up to the top of this altar. Then the priest rose and I heard a voice from above, saying to me: 'I have accomplished the action of descending the fifteen steps towards the darkness, and the action of ascending the fifteen steps towards the light, and he who sacrificed renews me, casting out all coarseness of the body in doing so; and, ordained by necessity, I became a spirit'. When I heard the voice of him who stood on the bowl-shaped altar, I put a question to him in order to get to know who he was. He answered me in a weak voice: 'I am Ion, the priest of the sanctuary and I have survived intolerable violence. For somebody came impetuously in the morning, cleaving me with a sword and tearing me entirely to pieces according to the hard law of harmony. And flaying my head with the sword which he held, he mixed my bones with my flesh and burnt them with the fire of the treatment. Thus I have learned to become a spirit by the transformation of the body'".

In his vision Zosimos gets several of such "lessons"; the third lesson ends with the words:

"When I woke up again, I said to myself: I have understood it well; it concerns the liquids in the art of the metals. He who carried the sword said further: You have accomplished the ascent of the seven

<sup>51</sup> F. Sherwood Taylor, "The Visions of Zosimos", *Ambix* I (1937), p. 88-92; B. Karle, *Der Alchemistentraum des Zosimos*, thesis Freiburg 1929; Zosimos edited and transl. by M. Berthelot, *Coll. des Anc. Alch. Grecs*, Paris 1888, vol. I and II, s.v. Zosimos.

<sup>52</sup> The same tendencies are shown in the king allegories which Maier uses in the *Atalanta Fugiens*, to depict material and spiritual transmutation processes, as in emblem xxviii the *king Duenech allegory*, in embl. xxxi the allegory about the sea-king, in embl. XLIV about the death, mutilation and resurrection of Osiris, in embl. XLVIII the *allegory about king Merlinus*. The allegory of the Rosicrucians in the seventeenth century, *Die Chymische Hochzeit Christiani Rosencreutz anno 1459*, Strasbourg 1616, has taken many factors from such alchemical allegories.

degrees. The other resumed in the same time in which he made the lead dissolve by means of all liquids: "The work is done".<sup>53</sup>

However inaccessible it may be, chemical knowledge underlies Zosimos' work. In the development of alchemy after Zosimos, in Byzantine alchemy, chemical foundations begin to fade away. In the Greek-chemical writings between the time of Bolos Democritos and Zosimos many legends arose concerning the origin of alchemy and a great number of writings hide behind names suggesting that the inventor of alchemy himself or somebody of great authority wrote them. Gods, kings, and prophets were elected for this purpose, differing, according to the fact whether they originated from Egyptian, Jewish, Greek or Oriental tradition. Thus there are writings in the name of Thoth, Hermes Trismegistus, Horus, Isis,<sup>54</sup> and Cleopatra from Egyptian tradition, Moses, Mary the Jewess and Solomon from Jewish tradition, and in the name of Aristotle, Appollonius of Tyana and others from Greek tradition.<sup>55</sup>

Since the time of Bolos Democritos, four schools of thoughts can be distinguished: firstly, the chemical-technical school, secondly the school which sets itself to the conversion of one substance into another, thirdly a Neoplatonic school, in which alchemy is part of religion and philosophy and fourthly the school in which alchemy has no chemical foundation at all. The two latter schools dominated after the time of Zosimos.

From the 7th century alchemical poems are known in the name of Heliodoros, Theophrastus, Hierotheios and Archelaos.<sup>56</sup> In the writings of Stephanos from the 7th and 8th century already mentioned,<sup>57</sup> alchemy gets completely stuck in mystic speculations. Stephanos and his school believed in the transmutation of metals

<sup>53</sup> M. Berthelot, *Coll. des Anc. Alch. Grecs*, II, p. 107-112, 115-118.

<sup>54</sup> Letter of Isis to her son Horus in M. Berthelot, *o.c.* II, p. 28-33 and 33-35.

<sup>55</sup> E. O. v. Lippmann, *Entstehung und Ausbreitung der Alchemie*, Berlin 1919-1931; R. P. Festugière, *La Révélation d'Hermès Trismégiste*, Paris 1950-1954, 4 vol., vol. I, Chapter VII.

<sup>56</sup> C. A. Browne, "The poem of the philosopher Theophrastus upon the Secret Art", *Scient. Monthly*, 1920, p. 193-214, ed. G. Goldschmidt, *Religions-geschichtliche Versuche und Vorarbeiten*, 19, (1923), 2.

<sup>57</sup> Published in L. Ideler, *Physici et medici Graeci minores*, 2, (1841); F. Sherwood Taylor, "The Alchemical Works of Stephanos of Alexandria", *Ambix*, I, (1937), p. 116-139 and 2, (1938), p. 39-49; E. Wellesz, "Music in the treatise of Greek Gnostics and Alchemists," *Ambix*, 1951, 4, p. 145-158.

as a symbol for the transmutation of the human soul by religion. Stephanos did probably not work in a laboratory. They consider chemistry and music as being two fields, which, each in its own way, give expression to cosmic harmony, and they write down their music with the help of vowels, which represent at the same time numbers, or the seven planets or the strings of a lyre. The music accompanying the chemical process, serves to benefit the harmony between body, soul and the music of the spheres.<sup>58</sup> The work of Stephanos and his school is the end of a development in Greek-alchemical writings.<sup>59</sup>

In the Western part of the Roman Empire alchemy had met with little response. That is also the reason why alchemy remained unknown for such a long time in Latin Western Europe and penetrated Latin-Christian Western Europe only in the 12th century via Arabic sources.

The rise and spread of the Islām gave a new turn to the history of alchemy. Arabic became the language in which alchemists from Spain as well as Persia wrote. Alchemy is supposed to have been first practised at the court of the Umayyads of prince Khālid ibn Yazīd in the second half of the seventh century, at whose initiative Greek writings were translated into Arabic. As time passed, legend credited Khālid with ever more alchemical works.<sup>60</sup> A very important name

<sup>58</sup> This thought also occurs in Maier, as can be seen from his words at the end of discourse VI of the *Atalanta Fugiens*: "Nam si Musica ornavit tantum Heroa, quidni et nostrum hoc opusculum magis variegatum et acceptum reddat: Canunt nam Angeli ut sacræ testantur literæ, canunt coeli, ut Pythagoras statuit, et enarrant gloriam Dei, ut Psalmista ait, canunt Musæ et Apollo, ut poëtæ, canunt homines etiam infantes, canunt volucres, canunt oves et anseres in instrumentis musicis, si ergo et nos canamus, non abs re facimus". See for this: C. de Tolnay, "The music of the Universe" *The Journal of the Walters Art Gallery*, Baltimore, 1943, vol. VI; Z. Ameisenowa, "Some neglected representations of the harmony of the Universe", *Essays in honor of Hans Tietze*, New York 1958, p. 349-363.

<sup>59</sup> Greek-alchemical writings are published in M. Berthelot, *Collection des Anciens Alchimistes Grecs*, Paris 1888, 2 vol.; and J. L. Ideler, *Physici et Medici Graeci Minores*, Berlin 1841. The manuscripts of the European libraries have been catalogued and published by the Union Académique Internationale at Brussels; *Catalogue des Manuscrits Alchimiques Grecs*, Brussels 1924-1932, 8 vol.; Dorothea Waley Singer, *Catalogue of Latin and Vernacular Manuscripts in Great Britain and Ireland, dating from before the sixteenth century*, Brussels 1928-1931, 3 vol.

<sup>60</sup> G. Sarton, *Introduction to the History of Science*, Washington 1927-1947,

in Arabic alchemy is that of Jābir ibn Hayyān (about 720-815). His posthumous work is extensive, and the number of writings attributed to him is numerous. In the Middle Ages the Latin alchemist Geber was identified with him. Jābir ibn Hayyān bases his theories on Greek alchemy, for instance on the four-elements-theory as regards the composition of matter. He further develops the theory about mercury and sulphur, according to which view sulphur and mercury are the foundation of all metals. His work is characterized by a great chemical knowledge and a critical, investigating mind.<sup>61</sup> The belief in the possibility of changing base metals into gold was a general one. Another great figure, from the 9th, and beginning of the 10th century, was Al-Rāzī (Rhazes), a physician famous in Islām and the Middle Ages.<sup>62</sup> He applied the results of alchemical investigations to the medical field and on account of this, he became an early predecessor of iatrochemistry, which came to maturity in the 16th century through Paracelsus. Just as any other scholar and philosopher of his time, Avicenna, in the first half of the 11th century, was confronted with posing the problem of alchemy. He, however, was an exception among his contemporaries, denying a possible transmutation of metals. He was of the opinion that a chemical approach was possible but that no conversion of the species took place thereby.<sup>63</sup> Beside the work of the said alchemist, physician and philosopher, Jābir, Rhazes and Avicenna, two writings have been of particularly great importance for the further history of alchemy, the *Turba Philosophorum*<sup>64</sup> and the *Tabula Smaragdina*;<sup>65</sup>

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3 vol., 5 parts; L. Thorndike, *History of Magic and Experimental Science up to the XVIIth Century*, New York 1927-1958, 8 vol.; see vol. II, p. 214 sq.

<sup>61</sup> P. Kraus, *Jābir ibn Hayyān, Contributions à l'Histoire des Idées Scientifiques dans l'Islam*, Cairo 1942 and 1943, published in Mémoires présentés à l'Institut d'Égypte, vol. XLIV and XLV, resp. *Le Corpus des Écrits Jābiriens and Jābir et la Science Grecque*.

<sup>62</sup> J. Ruska, *Al-Razi's Buch "Geheimnis der Geheimnisse"*, Berlin 1937.

<sup>63</sup> J. Ruska, "Die Alchemie des Avicenna," *Isis*, no. 60, vol. XXI, (1934), I, p. 14-51.

<sup>64</sup> J. Ruska, *Turba Philosophorum, ein Beitrag zur Geschichte der Alchemie*, Berlin 1931, published in: *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, Band I. M. Plessner, "The Place of the *Turba Philosophorum* in the Development of Alchemy", *Isis*, no. 142, vol. XLV, (1954), 4, 331-338.

<sup>65</sup> J. Ruska, *Tabula Smaragdina ein Beitrag zur Geschichte der hermetischen*

the earliest mention of both is found in Arabic, but they are probably inspired by Greek-chemical texts.

In Western Europe, alchemy was, as yet, still unknown. The various techniques, connected with alchemy had been developed, it is true, but the few Latin manuscripts about chemistry are collections of recipes. In the 12th century Arabic culture penetrated Western Europe; Sicily, captured from Islām by the Norsemen in 1091, became a centre from where Arabic science spread. Spain became a mixing-pot of Islamic and Christian learning; Toledo, Barcelona and other Spanish towns became centres where the Arabic writings were translated into Latin and thus spread over the Christian world. In 1144 Robert of Chester completed the first Latin translation of an alchemical writing from Arabic. It is the treatise, ascribed to Morienus, "about the composition of alchemy".<sup>66</sup> The translator adds to his translation, that he has rendered this treatise about alchemy from Arabic into Latin, because the Latin world does not yet know what alchemy and its composition contains.<sup>67</sup> This is followed by more translations, among others Rhazes' book about alums and salts;<sup>68</sup> the *Turba Philosophorum*, the *Tabula Smaragdina*, which was of great influence, but did not offer any starting-points for experiments on account of its mystic contents; in the 2nd half of the 12th century Avicenna's *Kitāb al-Shifā*,<sup>69</sup> a work which kept the critical mind alive. Avicenna's denial of the transmutation possibility did not prevent many alchemical writings appearing in Avicenna's name; the denial from his authentic work

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*Literatur*, Heidelberg 1926, published in: *Arbeiten aus dem Institut für Geschichte der Naturwissenschaft*, 16, IV (1926).

<sup>66</sup> *Liber de Compositione Alchemiae quem edidit Morienus Romanus, Calid Regi Aegyptiorum; Quem Robertus Castrensis de Arabico in Latinum transtulit*, printed in: *Artis Auriferae quam Chemiam vocant Antiquissimi Authores*, Basel, 1572, vol. II, p. 3-58. See Thorndike *o.c.* II, p. 214 sq. and see bibliographically sub Morienus, which data are taken from Sarton, *Introduction to the History of Science*.

<sup>67</sup> *Art. Aurif.*, (*o.c.*), p. 5: "Et quoniam quid sit Alchymia et quæ sit sua compositio, nondum vere vestra cognovit latinitas, in præsentis sermone elucidabo".

<sup>68</sup> J. Ruska, *Das Buch der Alaune und Salze ein Grundwerk der Spät-lateinischen Alchemie*, Berlin 1935.

<sup>69</sup> E. J. Holmyard and D. C. Mandeville, *Avicennae de Congelatione et Conglutinatione Lapidum, being sections of the Kitāb al-Shifā*, Paris 1927.

Avicenna's *De Congelatione et Conglutinatione Lapidum* is printed in: *Art. Aurif.*, Basel 1572, I, p. 400-409.



was disguised by statements in the Pseudo-Avicenna writings that Avicenna would have reconsidered his view afterwards.

Alchemy had penetrated Christian, Latin Europe, and soon obtained a permanent place there.<sup>70</sup> It was surrounded by the important philosophical and theological currents of the 12th and 13th centuries, the elements of which were adopted and fused into alchemical, symbolic statements. The 12th century is characterized by Averroës and Maimonides, who draw the attention to Aristotle. Besides, there originates in Jewish circles in the South of France the beginning of cabbalism, a mystical syncretism, the origin of which is to be sought in the Babylonian and Hellenistic period.<sup>71</sup> In Calabria lived Joachim di Fiore (1132-1206),<sup>72</sup> seer and mystic, whose prophecies based on the Holy Writ exerted influence up to, and into, the sixteenth century; in the history of the world, he distinguished three periods, that of the Father, the Son and the Holy Spirit and he was of the opinion that the third period, the time of the end of the world and the Antichrist, would soon come. There also existed feeling of discomfort at the end of the 16th century, which expressed themselves in prognostications about an approaching end of the world. Notwithstanding its condemnation on the part of the church, Joachism had spread; and thoughts borrowed from it, are to be found back in Roger Bacon and Arnold of Villanova, whose writings, the authentic ones as well as those ascribed to him, enjoyed great authority among alchemists. In the North, Hildegard of Bingen<sup>73</sup> belongs to those whose views run parallel to those of the alchemists. She was a Benedictine nun, theologian, physicist and physician. Her work reflects cosmological and physiological views, which are

<sup>70</sup> W. Ganzenmüller, *Die Alchemie im Mittelalter*, Paderborn 1938; beside Sarton, *o.c.*, and Thorndike *o.c.*, and the manuscript catalogues *o.c.* (notes 59 and 60) also bibliographies of printed alchemical treatises are considered worth mentioning in connection with the alchemy of the Middle Ages, because the writings, printed in the 16th century, were for the greater part editions of mediæval alchemical writings, from the 12th century onwards. See J. Ferguson, *Bibliotheca Chemica*, Glasgow 1906, 2 vol.; Denis I. Duveen, *Bibliotheca Alchemica et Chemica*, London 1949, 1 vol.

<sup>71</sup> G. Scholem, *Zur Kabbala und ihrer Symbolik*, Zürich 1960; G. Scholem, *Von der Mystischen Gestalt der Gottheit; Studien zu Grundbegriffen der Kabbala*, Zürich 1962.

<sup>72</sup> Joachim di Fiore is placed in the *Paradiso* (xii, 139 sq.) by Dante.

<sup>73</sup> H. Liebeschütz, *Das allegorische Weltbild der heiligen Hildegard von Bingen*, Leipzig 1930, Studien der Bibliothek Warburg, 16.

governed by a supposed connection between Macrocosm and Microcosm.<sup>74</sup> In the first half of the 13th century alchemy in Western Europe was firmly rooted, but the development of chemical finds proceeded less quickly. In the second half of the 13th century there arose a renewed interest in composing medical potions, and they searched undefatigably for the elixir of life, the aurum potable. Many of these writings are in the name of Albertus Magnus, St. Thomas Aquinas, Arnoldus of Villanova, Raymundus Lullius and Roger Bacon;<sup>75</sup> at that time, still more writings arose in the name of Hermes. At the same time in the 13th century, they reflect on alchemical theory, and in this respect the interest focuses on Aristotle's *Meteorologica* and Avicenna's (980-1037) *Kitāb-al-Shifā'*, both accessible in Latin from the second half of the 12th century.

Everybody, encyclopaedist, physicist, philosopher, theologian or physician, had to form an opinion on the possibility of the transmutation of metals. The traditions made them incline to accept, the method of the impostors, on the other hand, to reject the possibility. In general they came to the conclusion that the alchemical insights contained a kernel of truth, which was overgrown by the practice of sly alchemists. Thus Vincentius of Beauvais († 1264) founded his opinion mainly on Rhazes' *De Aluminibus et Salibus*, translated by Gerard of Cremona, and he believed in the conversibility of the metals, but with some reserve; a reserve that probably came from Avicenna. Albertus Magnus had a greater chemical knowledge than Vincentius of Beauvais, but their views agreed with each other.

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<sup>74</sup> G. P. Conger, *Theories of Macrocosm and Microcosm in the History of Philosophy*, New York, (Col. Univ. Press) 1922; Bernardus Silvestris of Tours (flor. circ. 1150), *De mundi universitate libri duo* (ed. Barach, Biblioth. philosoph. medii ævi, I), Innsbrück 1876; Roger Hinks, *Myth and Allegory in Ancient Art, Studies of the Warburg Institute*, VI, London 1939, p. 51 sq. (summary of the classical theories); F. G. Zorsi, *De harmonia mundi totius* (1525), the first postclassical scientific discussion on this theme, see W. S. Heckscher, *Rembrandt's Anatomy*, note 191 on p. 168 sq; Fritz Saxl, "Macrocosm and Microcosm in Mediæval Pictures", *Lectures*, I, London 1957, p. 58-72; P. Duhem, *Le système du Monde, Histoire des doctrines cosmologiques de Platon à Copernic*, Paris 1914/1958, 10 vol.

<sup>75</sup> Thorndike, *o.c.*, II, chapter LXVIII, Arn. of Villanova; *idem*, II, cap. LXIX, et passim, Raymundus Lullius; *ditto*, II, cap. LIX, LXII, LXIII et passim, Albertus Magnus; etc.; D. Waley Singer, "Alchemical Writings attributed to Roger Bacon", *Speculum*, VIII, p. 80-86 gives about 27 Pseudo-Bacon writings.

He accepted the possibility of alchemical gold, adding that there might be a difference between real gold and alchemical gold (*De Mineralibus* III, 9); St Thomas Aquinas holds a similar view. He adds, moreover, that, if real gold were to come into existence in an alchemical manner, it would not be unlawful to sell it as genuine gold.<sup>76</sup>

An important group of alchemical manuscripts from the thirteenth century is in the name of Geber, who was identified with the Arabic alchemist Jābir ibn Hayyān. Although no original Arabic manuscripts of Geber's work are known, the latter is, nevertheless, inspired by Jābir's writings and he has in common with him the critical disposition and clear elucidation about the nature and properties of metals. Geber's writings form the most important alchemical text books of the Middle Ages. The opinion about alchemy in the thirteenth century was in general that of cautious agreement. Transmutation of metals was deemed to be possible, although one supposed that a difference in quality between natural gold and alchemical gold might come to light. Moreover, it was considered that the alchemists, even if they were not able to find the Philosophers' Stone, might discover other valuable things. After all—in contrast to artisans, who were exclusively interested in a certain process—the alchemists were occupied with the fundamental problems of matter, namely the nature, the properties, the composition and the changeability of matter; and such for the sake of knowledge itself.<sup>77</sup>

So at the end of the 13th century, there was a large quantity of

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<sup>76</sup> St Thomas Aquinas, *Summa Theologiae*, Secunda Secundae, quæst. LXXVII, art. 2, 1: "... quod aurum et argentum non solum cara sunt propter utilitatem vasorum, quæ ex eis fabricantur, aut aliorum huiusmodi: sed etiam propter dignitatem et puritatem substantiæ ipsorum. Et ideo si aurum vel argentum ab alchimis factum, veram speciem non habeat auri et argenti, est fraudulenta et iniusta venditio: præsertim cum sunt aliquæ utilitates auri et argenti veri, secundum naturalem operationem ipsorum, quæ non conveniunt auro per alchimiam sophisticato: Sicut quod habet proprietatem lætificandi, et contra quasdam infirmitates medicinaliter iuvat. . . . Si autem per alchimiam fieret aurum verum, non esset illicitum ipsum pro vero vendere quia nihil prohibet artem uti aliquibus naturalibus causis ad producendum naturales et veros effectos, sicut Aug(ustinus) (lib. III, cap. 2, tom. 3) dicit in 3. de Trinitate de his quæ arte dæmonum fiunt". (ed. Paris, 1644, II, p. 165).

<sup>77</sup> E. Zilsel, "The Origin of William Gilbert's Scientific Method", *Journ. of the Hist. of Ideas*, New York, II (1941), p. 1-31.

alchemical writings in circulation. On the whole, the texts were not very clear. One of the reasons for this was that the alchemists deliberately kept their descriptions vague and expressed themselves allegorically, because their science concerned a mystery that was not to be made accessible to everybody. Another reason for the obscurity originated from ignorance or from inaccurate copying or from interpreting older alchemical writings subjectively. Moreover, certain prescriptions could lead to quite different results with the various alchemists, because there were no fixed standards for indicating various degrees of heat and because it could not always be defined whether the substance used for an experiment was quite free from the addition of other substances.

In the fourteenth century the quantities of alchemically minted gold—accepted as real gold—increased. Pope John XXII (1316-1334) promulgated a decree, by which the minting of alchemical gold was forbidden and by which the property of the alchemists was declared confiscated; especially priests were emphatically warned no longer to have anything to do with alchemical practices.<sup>78</sup> By spectacular forms of deceit the respect for alchemists began to wane, and at the end of the 14th century alchemy had become discredited with the intellectual society.

However, the study of hermetic wisdom seriously continued alongside it, influenced by the mysticism of the first half of the 14th century, which strongly increased as a reaction against the pressure of the dialectism of scholasticism. One of the most remarkable alchemical writings (and at the same time highly valued by the alchemists up to the 17th century) is Petrus Bonus' *Margarita Pretiosa Novella* 1330.<sup>79</sup> It is a compilatory work, in which the fields of believing, thinking and knowing are mixed and brought into relation with alchemy, and in which the Philosophers' Stone

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<sup>78</sup> Thorndike, *o.c.*, III, cap. II and III; translation in E. J. Holmyard, *Alchemy*, p. 145-146.

<sup>79</sup> Sarton, *o.c.*, III, 750 sq; The editio princeps of Petrus Bonus Lombardus de Ferrara's *Margarita Pretiosa Novella* was edited by Janus Lacinius and was published by Aldus at Venice in 1546.

The year 1330, as the date of the work's origin, is accepted as being exact by Thorndike, Sarton, Ruska, Stillman and Holmyard.

M. Maier valued the *Margarita Pretiosa Novella* highly and also the way in which Petrus Bonus discussed the philosophical sulphur (M. Maier, *Symbola Aureae Mensae*, p. 381-382).

is considered to be the key, giving access to all the secrets of Macrocosm and Microcosm:

"The oldest of the Philosophers realized that this stone in its origin, in its sublimity and in the conjunction of its elements, may be compared to all things of the world, tangible ones as well as intellectual ones, and with all things resulting from it; this holds good for all that may be said or written about the virtues and the vices, about heaven and all material and immaterial things, about the creation of the world and its beginning and end, about all the elements and their properties, the first as well as the second properties, about their being mixed together in the primary matter, about their separation and ascent and all their properties and passions, and about all the things that are composed of the elements, animal, as well as vegetable and mineral, and about perishable and imperishable, visible and invisible things, about the spirit, the soul and the body and about their union and separation, about their life and death, about the good and the bad, truth and falsity, oneness and multitude poverty and riches, about volatile and non-volatile, about war and peace, conqueror and conquered, about work and rest, sleeping and waking, about impregnation and birth, about youth and old man, about man and woman, strong and weak, about white and red and about substances of any colour, about hell and the abyss with their darkness and sulphuric acids, and about paradise with its height and lustre, beauty and invaluable glory. In short about all the things that exist and do not exist, about which one may speak or may not speak, all these things may be said about this venerable stone. That is why the philosophers of this art touched on the science of this stone in all sciences and works, by speaking in a mystic way."<sup>80</sup>

<sup>80</sup> Quotation about the Philosophers' Stone from: Petrus Bonus, *Margarita Pretiosa Novella.....compositus 1330* in: *Theatr. Chem.*, Vol. V, p. 592-593; "Antiquissimi Philosophorum viderunt hunc lapidem in ortu, et sublimatione sua et conjunctione Elementorum eius, omnibus rebus mundi, tam realibus quam intellectualibus, et eorum accidentibus, posse in similitudinis convenire. Unde quaecunque dici et tractari possunt de virtutibus et vitiis, de coelo, et omnibus, tam corporeis quam incorporeis, de mundi creatione, et eius principio, et fine, et de Elementis omnibus, et eorum qualitatibus, tam primis quam secundis, et eorum confusione in materia prima, et ipsorum distinctione, et ascensione, et eorum proprietatibus et passionibus omnibus, et de Elementatis omnibus, tam animalibus quam vegetabilibus et mineralibus et de corruptibilibus et incorruptibilibus, et visilibus et invisilibus, et de spiritu et anima, et corpore, et ipsorum unione, et sejunctione et de vita et morte, et bono et malo, de veritate et falsitate, de unitate et multitudine, de paupertate et divitiis de volante et non volante, de bello et pace, de victore et victo et labore et requie, de somno et vigilia, de conceptione et partu, de puero et sene, de masculo et femina, de forti et debile, de albis et rubeis, et quibuslicet/coloratis, de inferno et abyso, et eorum tenebris ac etiam ignibus sulphureis,

In his dissertation, Petrus Bonus also inserts the arguments which may be brought up against alchemy and refutes them with counter-arguments; he founds alchemy on Aristotle and on Arabic sources and calls Ovid's metamorphoses a source which treated the secret of the Philosophers' Stone in an esoteric way.

The alchemists of the 15th century base their work on writings handed down to them, compose anthologies from them, but do not add anything new. Some of the alchemical authors from the 15th century who are still quoted with preference in the 16th and 17th century, are Bernhardus Trevisanus and George Ripley. Anthologies under the name *Rosarium*, are either anonymous or are ascribed to Arnoldus of Villanova. Thus the 15th century passes by and these writings are printed in the 16th century.

It is remarkable that the alchemical writings are only printed in the course of the 16th century; an exception to this is Geber's work, which was already published about 1481, probably in Rome.<sup>81</sup> An explanation of the fact that on the whole alchemical treatises exclusively circulated in manuscripts form for a long time is to be found in the tendency for secrecy among alchemists, and beside that the fear of publishing things which were unacceptable for the Church, like the parallel between the Philosopher's Stone and Christ, whose passion, death and resurrection was supposed to be reflected in the processes the alchemists made the metals undergo in their retorts. This supposition is supported by the fact that exactly the writings of Geber were published in early editions; they were the most technical among the alchemical works.

In the 16th century alchemy gets a new impulse from Paracelsus<sup>82</sup> (1493-1541). Theophrastus Bombastus of Hohenheim is supposed to have given the surname Paracelsus to himself (together with

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et de paradiso et eius celsitudine et claritate, ac etiam pulchritudine, et gloria /inaestimabili. Et breviter de iis quae sunt, et de iis quae non sunt, et de iis quae loqui licet et de iis quae loqui non licet, possunt omnia dici de hoc lapide venerando. Unde philosophi huius artis, in omnibus scientiis, et operibus, tetigerunt scientiam huius lapidis, mystice loquendo".

<sup>81</sup> The Catalogue of the British Museum mentions an edition of *the Summa Perfectionis* at Venice (?), 1475 (?) under no. IA, 19199; see also bibliogr. sub Geber and Jābir ibn Ḥayyān.

<sup>82</sup> K. Sudhoff, *Versuch einer Kritik der Echtheit der Paracelsischen Schriften*, Berlin 1894, 1899, 2 vol.; W. Pagel, *An Introduction to Philosophical Medicine in the Era of the Renaissance*, Basel- New York 1958.

Philippus Aureolus)<sup>83</sup> in order to signify that he was more important than Celsus, Roman author about medicine in the 1st century. He had a complicated mind, in which the most conflicting forces were active; he despised traditional Galenian medicine, but, on the other hand, based his views upon speculations of mediæval alchemists. As the son of a physician, he was instructed by his father in medicine and alchemy. In metallurgical respect he was schooled by his stay in the mines of Sigismund Fugger in Tyrol (in 1514). After having led an itinerant life for a number of years, he obtained his medical doctor's degree at Ferrara (1525) and started a practice in Strasbourg. His sensational medical successes, among others with Johann Froben, the Basel publisher, procured him an appointment at the Basel University. He showed his contempt for traditional medicine by burning the writings of Galen and Avicenna in public. His theory was that chemically prepared medicines had to replace vegetable ones; he is the father of iatrochemistry, which gained great influence. As a starting-point, he took three principles: sulphur, mercury and sal, corresponding with spirit, soul and body, but he also stuck to the four elements fire, earth, air and water.

His aggressiveness and licentious way of living made him impossible at Basel, and after some years he resumed his itinerant life. He died in 1541. He was the subject of glorification and vilification. He considered the transmutation of metals to be possible, but this subject had not his full attention. He thinks it more important to apply the chemical results of the alchemical work to medicine. He assumes a firm connection between the planets and the substances out of which medicines have to be made. He considers Nature, bringing death, life, illness and health, as an alchemist; just as a man who prepares remedies is also an alchemist. According to this, the human body is also an alchemist in its way of functioning, the stomach of which is the laboratory in which all processes of conversion, necessary for health and a long life, take place. The medicines of Paracelsus should bring about a harmony between a planetary star and the star in the sick man himself.

Paracelsus' work and views were based on Neoplatonic and Gnostic ideas, the incarnation of which in Renaissance philosophy,

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<sup>83</sup> According to W. Pagel, *o.c.*, this surname was given to him in later life, without he himself using that name.

was Marsilio Ficino (1433-1499). But these ideas had already played a dominant part in alchemical literature from the time of Zosimos onwards, which also served as a source for Paracelsus' work.<sup>84</sup> The most characteristic feature of it is the dualistic way of thinking: a sharp contrast between the obscure matter and the shining divine spirit. Neoplatonism bridges the contrast by means of an intermediary between matter and spirit, the soul. The alchemists consider the completion of their opus in the same way as the Neoplatonists as uniting the two fundamental contrasts into one Unity, by their intermediary, Mercury, or the soul. In the Renaissance philosophy, Marsilio Ficino speaks about the soul as a mediator between the world and Divinity. The soul descends from the stars into an astral body and after the death of man ascends again in order to be united with God. Marsilio Ficino said about this astral body that it was a body but almost a soul, and not a soul, but almost a body".<sup>85</sup>

Paracelsus' influence on the alchemy of the 16th century was such that the interest in it strongly increased again. The result was that in the 2nd half of the 16th century and in the 17th century alchemical mediæval writings, which had circulated till then in manuscript form, were published in alchemical collective works,<sup>86</sup> as a consequence of which they became widely spread. This, added to the influence emanating from the writings of Paracelsus, laid the foundation for the origin of the Fraternity of the Rosicrucians at the beginning of the 17th century.

## THE ROSICRUCIANS

Michael Maier was a devoted adherent of the ideas of the Rosicrucians. In the same year in which the *Atalanta Fugiens* made

<sup>84</sup> W. Pagel, "Paracelsus and the Neoplatonic and Gnostic Tradition", *Ambix*, VIII (1960), 3, p. 125-166.

<sup>85</sup> Marsilius Ficinus, *De Vita Coelibus Comparanda*, lib. III, cap. 3, Aldus, Venice, 1516, fol. 153 r.; D. P. Walker, "Spiritual and Demonic Magic from Ficino to Campanella", *Journ. of the Warburg Institute*, London 1958, p. 38 sq.

<sup>86</sup> Important alchemical collective works: *ALCHEMIA etc.*, Nuremberg 1541; by Joh. Petreius; Guglielmo Gratarolo, *Verae Alchemiae Artis que Metallicae ... Aenigmata, Doctrina etc.*, Basel 1561, by Henricus Petrus and Petrus Perna; *Artis Auriferae, quam Chemiam vocant Antiquissimi Authores*, Basel 1572, by Petrus Perna; *Theatrum Chemicum*, ed. pr. Ursel 1602, 2 vol.; Strasbourg 1659-1661, 6 vol.; J. J. Manget (1652-1742), *Bibliotheca Chemica Curiosa etc.*, Cologne, 1702, vol. I, Geneva 1702, vol. II.



its appearance, he published *Silentium post Clamores etc.* (1617), in which he defended the Fraternity of the Rosicrucians against scoffers and against the misconception that the Rosicrucians propagated magic and necromancy. He points to the fact that Nature contains more secrets than it has revealed, but that in all times there have been Fraternities in which wise man have exchanged their knowledge about God and Nature. Maier factually stresses the point that alchemists and Rosicrucians preach the same truth. From this it follows that the emblems in the *Atalanta Fugiens*, which, in the title of the *Atalanta Fugiens*, are called "New Chemical Emblems concerning the Secrets of Nature", express at the same time the conceptions of the Rosicrucians. Above each emblem in the *Atalanta Fugiens* is written "de secretis Naturae". In *Silentium post Clamores*, the 2nd chapter bears the title: *Naturae Arcana imprimis esse eiusmodi, qualia Fraternitas Germanica confessa est*, "that the secrets of Nature are in the first place of such a character as the German Fraternity (the Rosicrucians) has professed". Consequently, in publishing the *Atalanta Fugiens*, Maier showed his approval of the Fraternity of the Rosicrucians and wanted to give evidence of the long tradition on which the ideas of Rosicrucians were founded, as in the *Atalanta Fugiens* he draws on very early alchemical sources. The conceptions of the Fraternity of the Rosicrucians, fitting in with those of the alchemists, can be summarized concisely: the Bible contains the Revelations of God, but at the same time the bible text provides secret data about the composition of matter and on account of this, it is a guide for good alchemists. Matter in the chemical retort and in the bowels of the earth was, besides matter, also a Revelation of God. The harmony between Macrocosm and Microcosm compelled man to join in with this harmony, as a consequence of which he would obtain an insight into the structure of both and could approach God in Solomonic wisdom. The rule of the Fraternity, the love of one's neighbour—and the giving of medical assistance—is also based on this.

The history of the Fraternity of the Rosicrucians is mainly outlined around two anonymous publications, in which the Fraternity of the Rosicrucians is mentioned for the first time, namely the *Fama Fraternitatis, oder Entdeckung der Bruderschaft, des hochlöblichen Ordens des Rosenkreutz*, Kassel 1614, and the *Confessio Fraternitatis*

*oder Bekandtnusz der löblichen Bruderschafft des hochgeehrten Rosenkreutzes*, Kassel 1615. In these two writings the history and regulations of the Rosicrucians are described. As third important writing of the Rosicrucians the *Chymische Hochzeit Christiani Rosenkreutz Anno 1459* appeared in 1616 at Strasbourg. According to the *Fama Fraternitas*, the Fraternity is supposed to have already led a hidden existence for 120 years. These publications, in which there is mention of a Fraternity of people initiated into secret wisdom, a Fraternity which was supposed to have existed secretly for many years, must be looked upon as a consequence of various trends in the 16th century.

The Reformation had given a stimulus to a new, inner experience of Christianity. Consequently, currents came to the surface, which till then had been active in secret. Sects were formed: the Catholic church began to take vigorous action; the order of the Jesuits was founded in 1540; the Council of Trent consolidates the dogmas and prepares itself for the struggle against Protestantism. Notwithstanding the Peace of Augsburg of 1555 the roused feelings are not to be suppressed any more. Under Maximilian II, Protestantism in Austria reaches its peak; in the reign of Rudolph II there appears an intensification of the situation between Protestants and Catholics; the Counter-reformation pushes forward in the Habsburg countries. At the beginning of the seventeenth century the thirty years' war breaks out. There is a contrast between protestant and catholic; the emperors want a political and religious unity. France and Habsburg are each other's opponents. The turbulent times made prognostications about a near end of the world revive in an intensified manner, which were based on the Apocalypse, Daniel and astrological data about the altitude of the planets. However, the years, which seemed to be so threatening, passed by without disastrous shocks.<sup>87</sup>

In the first half of the turbulent sixteenth century lived Paracelsus, who harmed the traditional Galenian medicine with his iatrochemistry. Paracelsus was a charlatan on the one hand, on the other hand a driving-power behind the revival of pansophy, a view of life and the world, in which cabbalism, belief in a nature populated by spirits, black magic, astronomy and alchemy had their places.

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<sup>87</sup> W. E. Peuckert, *Die Rosenkreutzer*, p. 8-18.

But the vision at the base of it was that of a Unity behind all phenomena; an inner urge to discern the stamp put upon all phenomena by the Creator. He exercised great influence on certain circles in the sixteenth century and was, without doubt, a stimulus to the publishing of alchemical collective works.

In the second half of the sixteenth century these ideas were alive in many scholars, among them, J. Dee (1527-1607), a mathematician, astrologer and practiser of occult sciences. He enjoyed the favour of Queen Elizabeth of England and later of Emperor Rudolph II. In his book *Monas Hieroglyphica*<sup>88</sup> he gives an explanation of the planet sign for Mercury, in which he recognizes a mystic expression of all truth, because the signs of the sun and moon the four elements and the cross are joined in it. The alphabet is also supposed to contain secrets, heaven must be looked upon in a cabalistic way etc.

Another figure already mentioned is Robert Fludd, who was the most important representative of the ideas of the Rosicrucians in England, already before the Fraternity had taken shape by the publication of the *Fama Fraternitatis*. Such a figure in Germany was Heinrich Khunrath (1560-1605), whose *Theatrum Sapientiae* was in great demand.

These are a few trends, which have promoted the origin of the *Fama Fraternitatis* and the *Confessio Fraternitatis*.

The *Fama* and the *Confessio* address themselves to the rulers and scientists of Europe. In the *Fama* the story of Christian Rosenkreutz, the founder of the Fraternity is told. The purport is that the Fraternity wants to draw the attention of European scientists to the old wisdom coming from the East as a lead in chaotic times.

The legend about Christian Rosenkreutz summarily reads, according to the *Fama Fraternitatis*:

"Father Christian Rosenkreutz was born in 1378 of an impoverished German noble family. From the age of five, he lived in a monastery and there he learned Greek and Latin. When he was fifteen, he travelled to Jerusalem with his brother. His brother died on the way, but this did not prevent young Rosenkreutz from continuing alone; but he set off for Damascus with the intention of

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<sup>88</sup> *Theatr. Chem.*, II, 192-215.

later completing on the pilgrimage to Jerusalem, because he had heard wonderful stories about the Wise Men of Damascus on the way. When he comes to them, however, they receive him as an acquaintance and call him by his name and know particulars about his life in the monastery of Germany. In Damascus, Rosenkreutz learns Arabic and goes into natural sciences and mathematics. After some years he travels to Egypt and from there to Fez, where he is initiated into the secrets of magic and learns that, just as in each seed a complete good tree or fruit is present, 'also die gantze grosse Welt, in einem kleinen Menschen were, dessen Religion, Policey, Gesundheit, Glieder, Natur, Spraache, Worte und Wercke, alle in gleichem tono und Melody, mit Gott, Himmel und Erde ginge'.

After two years Rosenkreutz departs for Spain, hoping to pass on the new views, which have had such a clarifying effect on him, to the scientists of Europe, so that they would base their studies on those wisdoms. Alas, this hope proves to be vain and Rosenkreutz, who had also taken all kinds of new plants and animals with him to show them, was laughed at.

Thus he travelled on and returned to Germany. He could have been a striking person, for on his travels he had also learned how to transmute metals, but he did not want to show off. He preferred to devote his thoughts to God and man. He builds a house for himself, devotes himself to mathematics and has a great many instruments for all fields of this art. After five years the thought of the so ardently desired reformation of living and thinking in Europe returns and he decides to put the reformation into practice himself with the help of three brethren from the monastery in which he had lived in his youth. He initiates the brethren into the secret sciences and they devote themselves to curing the sick. They promise secrecy and implicit loyalty to Christian Rosenkreutz. 'Also fieng an die Brüderschafft des R.C. erstlich allein unter vier Personen'. When their new building Sancti Spiritus was finished, they attracted four more brethren. Thereupon they spread to carry out their message all over the world. Before their departure they draw up six rules, which apply to all Brethren: they have to cure the sick gratuitously; they shall not wear any clothes, by which they will be recognizable as members of the Fraternity, but conform to the clothes which are in use in the country to which they are going; they shall collect

annually on day C at Sanctus Spiritus; everybody shall care that at his death a reliable successor is already to succeed him; the word R.C. shall be their token; the Fraternity shall be active in silence during one hundred and twenty years.

Two brethren stay with the aged Christian Rosenkreutz, who dies in 1484 at the age of 106. His grave remains unknown; successors continue the work of the Fraternity. Among the brethren the supposition remains that once the Fraternity will enter into publicity. The immediate cause of the coming into publicity is the wonderful discovery of Rosenkreutz' tomb. During alterations a door appeared behind brass plates, on which the names of the brethren were engraved, and behind that the tomb of Rosenkreutz was found. Above the door was written: "Post cxx annos patebo", after 120 years I shall be open. Behind the door there was a heptangular vault; the space was brightly lighted notwithstanding the lack of sun-light. In the middle was an altar with the inscription: "I, A.C.R.C., made for myself, when alive, this image of the Universe into a tomb". Further inscriptions read: "Nowhere is there empty space; the rigour of the law; the freedom of the Gospel and the inviolate glory of God". Under the altar was lying the undecayed body of Rosenkreutz. In cupboards along the wall, was found work of Paracelsus.

The author of the *Fama* then continues that, even if the Order of the Fraternity were to go to pieces after many hundreds of years, it would be possible to reconstruct it by means of the data of the tomb. They had measured all the sides of the vault, the floor and the height. When the body of Rosenkreutz was found, he had a booklet in his hands, ending with a statement about Christian Rosenkreutz, who, "by divine revelations, by sublime tuition and indefatigable aspiration, had obtained access to all the secrets and mysteries of heaven and human nature. In Arabia and Africa he had collected a treasure, which he guarded for posterity, as his own time was not yet ripe for it. After he had rebuilt the world on a smaller scale with all its movements he died".

The *Fama* confesses the belief in Jesus Christ, which, according to the words of the *Fama*, had begun to flourish again, especially in Germany. Further, the *Fama* stresses the fact that their philosophy was not new but was already professed by Adam, Moses and Solo-

mon, namely the one short truth, which is a representation of Christ, the image of God the Father; and what is the truth in philosophy, cannot be untruth in theology, because both agree and form together a sphaera or globe, all points of which are equidistant from the centre.

Thereupon the *Fama* disapproves strongly of "making the unholy and damned gold in our time". This, however, does not imply that the *Fama* rejects the transmutation of metals. For Rosenkreutz himself mastered this art. The *Fama* explains that making gold is not the highest aim of philosophy, for to the philosopher, for whom the whole Nature is an open book, making gold is only something incidental; it is a "parergon". The serving of God and man and working on one's own soul is the great task, the "ergon". The *Fama* ends with an appeal to the leading figures of Europe to take good notice of this writing.

The *Confessio* is more or less a compendium to the *Fama*. The *Confessio* begins by stressing that it is not the intention of the Fraternity of the Rosicrucians to undermine the secular authorities. They offer their prayers and gold treasures to the head of the Roman Empire and they curse the slander by which East and West, Mohammed and the Pope affect Christ. Their only object is the expansion of philosophy. And by philosophy, pansophy is meant. So the Rosicrucian movement is characterized by anti-papistic ideas of reformation. They are awaiting a new ara, a last era looking forward to the coming of Eliyah. The subscription of Rosenkreutz' biography in the booklet found in the grave, reads: "Ex Deo nascimur, in Jesu morimur, per Spiritum reviviscimus". This gives rise to thoughts of the Joachimites, who also distinguished three periods that of the Father, the Son and the Holy Spirit.

The symbolism of the *Fama* refers to hermetic wisdom: Rosenkreutz gets his knowledge of the Universe by revelations from God, and, by the tuition of Arabic and African masters. The secret existence of the Fraternity alludes to the covert terms in which that hermetic wisdom was handed down in the course of the centuries, inaccessible to outsiders. Just as Maier in his *Examen Fucorum Pseudo-Chymicorum*, the *Fama* dissociates itself from the spectacular makers of gold, whose practices were usually founded on deceit. The idealistic arrangements of the Fraternity appears

from the prescription of offering medical assistance as much as possible without any compensation. Their urge for reformation and their efforts to make religion and sciences into one unity makes them appeal to the leading figures and the scientists of Europe. That unity between religion and sciences existed in the Middle Ages by the supremacy of the church, by which a scientific view, which would be in conflict with theological suppositions, was checked. During the Renaissance various branches of science begin to develop independently and there arises a gap between religion and science. The Rosicrucians want to propagate the opinion that pansophy contains the philosophy of life, by which both are two facets of one truth.

The *Chymische Hochzeit* is an unfinished allegory about a man, also Christian Rosenkreutz by name, who is allowed to be present at the wedding of the chemical king and queen. Along a difficult road Rosenkreutz reaches the king's palace, where the wedding will take place. All the guests are weighed in the balance and most of them are found wanting, except Rosenkreutz. At first the bride and bridegroom did not show themselves to the guests and the latter are received by a young girl, the servant of the bride. Bride and bridegroom are killed and revive. Rosenkreutz is allowed to collaborate in a transmutation process of a fiery, iron bird. The *Chymische Hochzeit* contains many motives borrowed from alchemical allegories, as the title indicates.

The authorship of the *Fama* and the *Confessio* is disputed. Probably the author should be looked for in the circle around Johann Valentin Andreae, Lutheran theologian (1586-1654), who called himself the author of the *Chymische Hochzeit*. The *Fama* and the *Confessio* show a similar trend and probably also originate from the circle of Andreae. The basic idea is a combination of a natural-physical philosophy of life and an inner experience of Christianity. Andreae was very fully alive to the ideas of the Reformation and Campanella's views.

The reactions on the publication of the *Chymische Hochzeit* were of such a nature that Andreae dissociated himself from it and stated that he had drafted it as a persiflage on the occult-alchemical currents of his time.<sup>89</sup>

<sup>89</sup> R. Kienast, *Johann Valentin Andreae und die vier echten Rosenkreutzer Schriften*, Leipzig 1926.

Thereupon Andreae occupies himself with ridiculing the Fraternity. Thus, in his book *Turris Babel sive Iudiciorum de Fraternitate Rosaceae Crucis Chaos*, which appeared in 1619 at Strasbourg, he makes the goddess Fama appear, who summons the people to read the writings *Fama* and *Confessio* and to pass judgment over the "numerous, omniscient and omnipotent Brethren of Rosenkreutz, who want to liberate the world from all idolatry and ignorance". At the summons of the goddess Fama, discussions follow, which are concluded by the goddess Fama as follows: "Hear, mortal ones, you wait in vain for the Fraternity; the comedy has come to an end. The *Fama* (the book) has acted it, the Fama (the goddess) has removed it. The *Fama* says yes, the Fama says no".<sup>90</sup>

This quotation shows the controversy arising from publishing the *Fama* and *Confessio*. Here is not the place to go further into this matter. Whoever might have been the author, he is sure to be found in a circle where pansophy, alchemy and the ideas of the reformation were a subject of discussion. I also pass over the question whether the Fraternity of the Rosicrucians was a real community of like-minded people or that it was only a fraternity on paper.

Fludd and Maier, both very strong adherents of the ideas of the Fraternity of the Rosicrucians, do not mention in their work that they were admitted to or initiated in the Fraternity of the Rosicrucians or know people who are. In *Symbola Aurea Mensae*<sup>91</sup> Maier mentions the *Fama* and the *Confessio*, but not the *Chymische Hochzeit*. Maier says (also note 91) that during his stay in England, he heard of the existence of the *Fama* and the *Confessio*. Maier rebuts the objections which may be brought up against the *Fama* and the *Confessio*. Thus he says concerning the remarkable mistake in the *Fama*, namely the presence of a book of Paracelsus in Rosenkreutz' grave, which would have been closed from 1484 till 1604, that this is not clearly expressed in the *Fama*, but that it is the intention that the book in the tomb agreed with work of Paracelsus, as regards its contents. About the question as to the residence of the Brethren, Maier says that it is to be desired that it remains unknown to the people and the malevolent, whilst the good out of

<sup>90</sup> F. Katsch, *Die Entstehung und der wahre Endzweck der Freimaurerei*, p. 263; W. E. Peuckert, *o.c.* 188sq und 400sq.

<sup>91</sup> M. Maier, *Symbola Aureae Mensae*, 290-296.



the treasures and the secrets of the Brethren accrue to the poor, sick, and wounded anyhow. It is obvious that Maier values the *Fama* for its allegoric importance, in accordance with his interpretation of alchemical writings.

The fact that no entry into the Fraternity of Rosicrucians is mentioned in the work of Maier and Fludd, and no names are mentioned, of people who entered it, makes one suppose that the Fraternity of the Rosicrucians in the 17th century was a fictitious Fraternity, without there being any order with an organized administration. But the *Fama* and the *Confessio* brought to notice a mystic ideal. Maier saw his own conceptions reflected here and considered this idea to be worthy of support by his views and publications. Although he had no part in the publications of the *Fama* and the *Confessio* he was one of the impelling forces on the ideas of the Fraternity of the Rosicrucians. The principal theme of his work was to show the link between the views of the Rosicrucians and the tradition of hermetic, alchemical wisdom.

#### ALCHEMICAL STARTING-POINTS

The alchemists started from the Unity in diversity, "The One is the All", from the theory of the elements in relation to the composition of matter and from the connection between Macrocosm and Microcosm. The elements' theory lies at the base of all alchemical speculations. It is rooted in Greek philosophy, arising out of the quest for the origin and nature of the phenomena; a question put and answered for the first time by the Milesian physical philosophers of the 6th century B.C. Thales of Milete would have considered water to be the basic principle of all manifestations. His contemporary Anaximander adopted the unlimited, the endless, the *ἄπειρον* as the primordial principle, and the four principles hot, cold, dry and moist, and the oppositions arising from them. According to the third great man of the Milesian physical philosophy, Anaximenes, the primary principle was formed by air, the *πνεῦμα*, which is breath of life at the same time, the basic matter of the soul. This air contained all contraries by which worlds come into existence and perish. Heraclitus took fire as a starting-point for the origin and change in Nature. However, this development and the multitude of phenom-

ena takes place within the Unity in diversity. The fire that Heraclitus has in mind, was the primordial fire of creation in alchemical literature, the substance of God and man's soul at the same time. As such fire is dealt with in the *Turba Philosophorum*, one of the sources often consulted by Maier. The theory of the four elements and about the opposites arising from it has been worked out in many varied ways in the emblems of the *Atalanta Fugiens*.

The basic contrast in which the elements are divided, and from which the world of the phenomena differentiates itself, manifests itself in all conceivable and knowable opposites, like light and dark, good and bad, heaven and hell, light and heavy, air and earth, fire and water. They are two aspects of the Unity of the Universe. The phrase written around the picture of the ouroboros in Greek-alchemical writings: "The One is the All", recurs again and again in alchemical literature and also in the writings of the Rosicrucians, which appeared centuries later, and in similar theosophical, cabbalistic, mystically tinted literature, which is based on alchemical literature, until far into the 17th century.

In contrast with the Milesian school, which considers motion and change as a reality, the Eleatic school of Southern Italy, with Xenophanes, Parmenides and Zeno as its most important representatives, posits that each change is a phase within the Immutable Being. According to Parmenides, Not-Being is inconceivable. The Ratio is the only way to approach Being. The consequence of Parmenides' ideas, if only Being is, and Not-Being is not, is, that no movement or change is possible. (As attack on this is made by Maier in the beginning of the discourse of embl. VII.) The Eleatic school further stresses the element earth.

Until the time of Empedocles only one element had been taken as primary principle in Physical Philosophy. In the 5th century Empedocles of Akragas summarizes the existing theories. According to him, fire, earth, air and water are all four of them equally important as materials of the Universe. On account of this he becomes the founder of the theory of the elements, as it remained until, and into, the 17th century; connected with it was the theory of the four saps of life which agreed with the four elements in the human body, according to Hippocrates and Galen. Empedocles qualifies the opposite forces between the elements as *φιλία* and *νεῖκος*, love and

hate, the attracting and the repelling forces, out of which the Universe is formed, and which are the origin of all action and change. In alchemical literature these opposite forces are represented as scenes of battle and of love between the metals, between Sun and Moon, between man and woman, between animals or between mythological figures, with the intention of making clear the fundamental forces of the Universe, with, as a starting-point, Empedocles' tenet that the like can be known by the like; in alchemy the expression "*simile simili gaudet*", is a winged word. At the same time, the parallels between the alchemical process and other processes of growth and origin in nature, like the growing of wheat or the genesis of man and animal, are based on it.

Leucippus and Democritus of Abdera (about 460-370) developed a system in which—contrary to Parmenides, who denied the Not-Being—the Not-Being was inserted. They set the full and the empty against each other. The emptiness was filled by the atoms, which are taken to be indivisible, unchangeable and imperishable. Out of this substance all phenomena are constructed, also the human soul. The difference between the manifestations is determined by the size and the arrangement of the atoms, not by the difference in nature. Maier has also depicted this thought in embl. XLIV in the shape of Osiris, who fell apart into infinitesimally small parts (the atoms), which Maier calls "*scintillæ albæ*", the purified sparks, from which a new world and a new soul, a reborn Adam may arise.

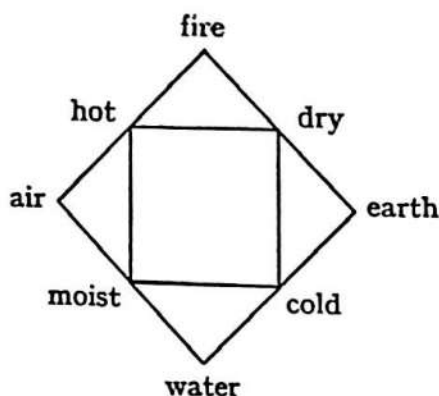
As the only essential property of the atoms Democritus considers their hardness, impermeability and density. This is their primary property. Colour and warmth are secondary properties, tied to sensory perception. In alchemy a property of the Philosophers' Stone is amongst others hardness and impermeability, with the result that the Stone cannot be attacked by water and fire. This hardness and impermeability may, however, only be reached when the elements, which first occur in an unsteady combination, from which it is possible to decompose them, return to the primary matter, after which the elements in a purified state are brought to such a degree of fusion, also called the *quinta essentia*, that they cannot be decomposed from it again. This final result, the Philosopher's Stone, is resistant to the influence of whatever element, by

its impenetrable hardness. This factor indicates the possible influence of the atom theory on alchemical conceptions.

However, at the same time, the Philosophers' Stone must show warmth and colour as properties. These are properties, which, according to Democritus, are of a secondary nature. But warmth is the primary property of fire; fire, which according to Heraclitus is the root principle of the Universe, and consequently of the highest importance to the Philosophers' Stone, in spite of the inferior position of the property warmth in Democritus' philosophy. Colour, as the highest indication of the quality of the Philosophers' Stone, originates from another field, from which alchemy took root, namely the painting- and colouring techniques of Antiquity. Much value was set upon dyeing the materials purple; purple became an essential property of the Philosophers' Stone. The red colour, as a sign of the high dignity and perfection of the Stone, was supported by several factors, like the dignity of the royal purple. In the Middle Ages, when the passion, dying and resurrection of Christ was made analogous to the transmutation process, from which the Philosophers' Stone would arise, the red colour of Christ's blood, by which the world was redeemed, counted for that reason also as the colour required for the Philosophers' Stone. A third parallel between the red colour of the Stone and the red colour as a sign of order and perfection was found in medicine. Red blood counted as a sign of equilibrium between the four saps of life, and that meant health. Disturbance of that equilibrium, in which, for instance, the black bile would prevail, would also bring about disturbance of the soul's equilibrium; the melancholic temperament would get the upper hand and would check the soul on its way to perfection, to God.

Aristotle adopted an immaterial basic principle as prime principle, *ἐκμαγεῖον*, which could absorb the properties warm, cold, dry and moist. Out of these properties the elements arose, each of them with two of the properties mentioned; fire was hot and dry, earth was dry and cold, water cold and moist, air moist and hot. On account of the fact that each of the four elements had one property in common with two other elements, a conversion from one element into another was possible. On account of the fact that in each element one of the two properties dominated, there arose a circular motion, from which all forms originated. In fire, heat prevails, in

earth, dryness, in air, moistness, and in water, coldness. Fire and water are each other's opposites, because both properties are contrary to each other. These opposites or "animosity" can only be bridged or converted into "love" by a mediator, namely the element in between, which has one element with both in common. The difference in the mixture proportion of the elements explains the variety in phenomena. This philosophy was the base on which the alchemists founded their efforts of changing lead into gold. The alchemists measured the quantity of fire, present in a certain combination, by the combustibility of the substance; they measured the amount of moist by the fusibility; the amount of air by the rising vapour or smoke in burning; the quantity of earth by the ashes remaining after the burning.



Aristotle divided the elements into an active and a passive group. In alchemy these contrasts were depicted allegorically as the active and passive principle in nature. The Greek alchemists transferred the theory of the elements to the material plane for their transmutations of metals.

Further Aristotle's view of the way in which minerals and metals originate in the bowels of the earth was of importance for the alchemical representations of them (Arist. *Meteorol.* III, cap. VII). Aristotle was of the opinion that there are two evaporations in the earth. One is predominantly cold and moist, and arises when the sun-beams fall on water. Out of this the metals arise; they are fusible and malleable and they have become a solid substance by the drying activity which the earth exercises on the vaporated moisture contained in it. The other evaporation is predominantly hot and dry and arises when the sunbeams fall on dry soil. The dry evaporation

becomes non-fusible minerals in the bowels of the earth. As the first evaporation is not quite cold and moist, but slightly hot and dry at the same time, the metals formed out of it consist of all the four elements, of which, however, water and air prevail, and of these two water predominates. In the same way the second evaporation is not quite hot and dry, but slightly cold and moist at the same time, and consequently also the minerals formed out of it consist of four elements, of which earth and fire predominate, and of these two fire most.

A modification of this theory is found back in the Arabic alchemy from the 8th century, in the work of Jābir ibn Ḥayyān. According to him, metals were formed in the earth, under the influence of the planets, out of the union between sulphur and mercury; sulphur represented the properties hot and dry, mercury the properties cold and moist; outwardly at least, for hidden in the mercury were the properties hot and dry. Thus lead is cold and moist outwardly, but its hidden nature is hot and dry, that is to say, in its hidden nature lead is equal to gold, for gold is hot and dry in its outward nature and cold and moist in its inner nature. In the alchemy of the Middle Ages and in Maier's work, the theme of the outward and the hidden nature of things is applied to the composition of the soul, which—just as lead, the imperfect, humble metal, is equal to gold in its hidden nature—is equal to the Divine Light in its hidden nature.

According to Jābir the difference between the metals is defined by the extent of the purity of their component parts, sulphur and mercury, and further by the balanced equilibrium, in which they occur in a metal. By the balanced equilibrium he did not mean an equal quantity of both, but an equilibrium between the properties or "natures", hot, dry, cold and moist. By mercury and sulphur he did not understand common mercury or common sulphur, but a hypothetical substance, the nature of which was most closely approximated by sulphur and mercury. Jābir's views obtained a dominant place in alchemical literature of Western Europe by the work of the Latin Geber, and then found their way into Maier's work. Pre-socratic philosophy is recognizable, in a degenerated way, in Arabic alchemy, in the writing *Turba Philosophorum*, which, become having known in Western Europe also in a Latin form, obtained an important, lasting place in the history of alchemy.

Maier wanted to express this sulphur-mercury theory, in the title of his emblem book, in the form of the legend of Atalanta and Hippomenes. Atalanta represents the volature mercury, Hippomenes symbolizes the force of sulphur. It is the alchemist's task to unite these opposites.

THE EMBLEMS NOS I - L  
WITH STATEMENT OF THE SOURCES  
AND COMMENTARY

EMBLEM I

(fig. 1)

MOTTO

The wind carried him in its belly.

EPIGRAM

When the unborn child, which lies hidden in the womb of the North  
wind,  
One day will rise to the light, alive,  
He alone will be able to surpass all deeds of heroism  
With his art, his hand, bodily strength and spirit,  
Let him not be born for you like a Coeso, and not as a useless  
abortion,  
Not as an Agrippa, but under a lucky star.

SUMMARY OF THE DISCOURSE

In the *Tabula Smaragdina*<sup>1</sup> Hermes wrote briefly about the work of Nature. He says among others: "The wind carried him in its belly". By this he means, as it were: "He, whose father is the Sun, and whose mother is the Moon, will be carried, before he is born, by wind and vapour, just as a flying bird is carried by the air". From the vapours or winds, which are nothing else but wind in motion, water proceeds, when condensed, and from that water, mixed with earth, all minerals and metals arise.

Now I am asked who it is that has to be carried by the wind. To him I answer: "In chemical respect it is the sulphur, which is carried in mercury", as Lullius states in *Codicillus*<sup>2</sup> chapter 32. He

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<sup>1</sup> *Theatr. Chem.*, I, 362.

<sup>2</sup> R. Lullius, *Liber, qui Codicillus, seu vade mecum inscribitur, in quo fontes Alchimicae artis et reconditoris philosophiae traduntur, ante hac nunquam impressus*, Cologne 1563, ed. pr.



further says in Chapter 47: "The Stone is the fire, carried in the belly of the air". In physical respect it is the unborn child that will soon be born, I also mention it with respect to arithmetic, as it is the root of the cube; in the field of music it is the fifth; in the domain of geometry it is a point, that starting-point of the straight line; astronomically it is the centre of the planets Saturn, Jupiter and Mars.

But I put the matter more clearly as follows: "All Mercury is composed of vapours, that is to say of water, which the earth raises along with it into the thin air, and of earth, which the air compels to return into watery earth or earthy water. As, however, all elements are contained in them and mixed and each in turn is reduced to a watery condition, they cannot easily be decomposed again, but they follow the volatile elements upwards or they stay below with the solid elements; the first is to be seen in the common Mercury (mercury), the second is to be seen in the philosophical Mercury and in the solid metals".

Therefore it is not without reason that Mercury is called the messenger of the Gods and the mediator, winged at his head and feet. He flies through the air like wind itself. Because Mercury carries the double caduceus, which takes the souls from the bodies and brings them back again, and effects many other such compositions, it is he who best expresses the thought of the philosophical Mercury.

So Mercury is the wind, which receives the sulphur, or Dionysus, or, if alternatively, Aesculapius, as the unripe fruit from the mother's womb, or from the ashes of the burnt mother's body and takes it to a place where it may ripen. The embryo is sulphur, engendered by the heavenly Sun and the North wind, to ripen and to procreate twins in due time, one of whom is whitehaired and is called Calais, the other red-haired and called Zetes. These sons of Boreas—as the chemical poet Orpheus wrote—were with Jason and the Argonauts, who went to Colchis in search of the Golden Fleece. However, the blind seer Phineus, pestered by the Harpies, could not set himself free without the assistance of these sons of Boreas. As a reward Phineus showed the Argonauts the way. The Harpies, however, are nothing but the destroying sulphur, expelled by the sons of Boreas, when they have reached the right age, and when

perfection has emerged from the noxious vapours; this perfection then shows Jason the way for obtaining the Golden Fleece.

In *Clavis* 6<sup>3</sup> Basil Valentine writes about these winds: "For there must come a twofold wind, named Vulturnus, thereafter a single wind, named Notus, which will blow boisterously from East and South, so that, when their motion stops, water has proceeded from air; be confident that then the material arises from the spiritual". And in *Porta* 8 Riplæus says:<sup>4</sup> "Our Child shall be born in the air, that is in the belly of the wind". Similarly the *Scala Philosophorum*,<sup>5</sup> gradus 6, writes: "And be it known that the Son of Philosophy is born in the air", and gradus 8: "And may you know that the volatile spirits rise into the air and love each other, just as Hermes said: the wind carried him in its belly, because the birth of our son takes place in the air, and to be born in the air is to be wisely born; for he rises from the earth into heaven and descends again to the earth, in order to unite the higher and lower forces".

#### SOURCE OF THE MOTTO

*Tabula Smaragdina*, ascribed to the legendary Hermes Trismegistus. Printed in: *Theatr. Chem.* I, 362 (see alchem. bibl. Hermes Trismegistus),

"Portavit illud ventus in ventre suo",  
 "The wind carried it in its belly".

#### COMMENTARY

The source which Maier chose for the beginning of his *Atalanta Fugiens* is one of the most ancient, shortest and most authoritative works in the history of alchemy.

The *Tabula Smaragdina* was attributed to Hermes Trismegistus, or to the Egyptian Thoth, the god of mathematics and sciences. The earliest known manuscript of the *Tabula* occurs in the work of Jābir ibn Ḥayyān, an Arabic alchemist from the 8th century; Jābir de-

<sup>3</sup> Basil Valentine, *Practica Cum Duodecim Clavibus et Appendice, De Magno Lapide Antiquorum Sapientum*, in: *Mus. Hermet.*, 406.

<sup>4</sup> G. Riplæus, *Liber Duodecim Portarum*, in: *Theatr. Chem.* III, 814.

<sup>5</sup> *Scala Philosophorum*, in: *Art. Aurif.*, II, 159 and 168 respectively.

clares he is quoting Appollonius of Tyana, a Neopythagorean and magician of the 1st century. Study of the sources has proved that the *Tabula* probably goes back to a Syrian source of the 4th century and that it is not impossible that behind this was a Greek original.

There are various legends about the way in which the *Tabula* was found. Sarah, wife of Abraham, was said to have found the tomb of Hermes Trismegistus in a cave, a long time after the Flood, and, in the hands of Hermes Trismegistus, an emerald table, in which the text of the *Tabula* had been engraved. Another legend speaks about Noah, who is said to have kept the *Tabula* in the ark during the Flood. Alexander the Great and Apollonius of Tyana are also mentioned as having discovered the *Tabula*.

The legends about the origin of the *Tabula*, as one of the oldest works of alchemy, are connected with the legends about the Philosophers' Stone. According to Morienus, a fictitious Christian alchemical author, whose work was translated from Arabic into Latin in the 12th century, Adam is alleged to have taken the Philosophers' Stone with him from Paradise. Since that time the Philosophers' Stone is said to be present in everybody.<sup>6</sup>

The text of the *Tabula* is clearly intended to express the quintessence of the changes which take place in nature, and deals with the connection of heavenly and earthly affairs and with the one origin which is at the root of all phenomena and which penetrates into Macrocosm and Microcosm. These ideas are, at the same time, the starting-points of the alchemical transmutation of metals and they explain the important place the *Tabula Smaragdina* takes in the alchemical literature. After the *Tabula* had become accessible to Western Europe in Latin many *Tabula* commentaries came into existence; although very different, they all agreed on this point, that the forces of the cosmic soul had to be brought together into one solid matter called the Philosophers' Stone, or the Elixir or the *Tinctura Rubra*, by which everything that was imperfect, ignoble or ill could be brought to perfection.

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<sup>6</sup> M. Maier, *Verum inventum*, 87, quotes Morienus: "...Adamum hunc lapidem secum portasse e Paradiso, et quemlibet eum secum habere, in me, in te, et in quolibet alio, ut Morienus ait".

The text of the *Tabula Smaragdina* reads as follows:

“True it is, without falsehood, certain and most true.  
 That which is below is like to that which is above,  
 And that which is above is like to that which is below,  
     to accomplish the miracles of one thing.  
 And as all things were by the contemplation of one;  
     so all things arose from this one thing by adaptation.  
 Its father is the Sun, its mother is the Moon.  
 The wind carried it in its belly,  
 The Earth is its nurse.  
 It is the father of all the perfection of the whole world.  
 Its power is complete, if it be cast on to earth.  
 You shall separate earth from fire,  
 the subtle from the gross, in a smooth way, with great sagacity.  
 It rises from earth to heaven, and descends again from heaven to  
     earth,  
 and receives the force from things that are above and from things  
     that are below.  
 Thus you will possess the glory of the whole world,  
     and all obscurity will flee from you.  
 This thing is the strong fortitude of all strength.  
 Because it will overcome each refined, subtle thing  
     and it will penetrate each substance.  
 In this way the world was created.  
 From this marvellous adaptations will arise, of which this is the  
     manner.  
 For this reason I am called Hermes Trismegistus, because I possess  
     three parts of the wisdom of the whole world.  
 That which I had to say about the operation of Sol is completed”.<sup>7</sup>

<sup>7</sup> Text of the *Tabula Smaragdina*, from *Theatr. Chem.* I, 362: “Verum est sine mendacio, certum, et verissimum. Quod est inferius, est sicut id quod est superius. Et quod est superius, est sicut id quod est inferius, ad perpetranda miracula rei unius. Et sicut res omnes fuerunt ab uno, meditatione unius; sic omnes res natae fuerunt ab hac una re, adaptatione. Pater eius est Sol, mater eius Luna. Portavit illud ventus in ventre suo. Nutrix eius Terra est. Pater omnis Thelesmi totius mundi est hic. Virtus eius integra est, si versa fuerit in terram. Separabis terram ab igne, subtile a spisso, suaviter, magno cum ingenio. Ascendit a terra in caelum, iterumque descendit in terram, et recipit vim superiorum et inferiorum. Sic habebis gloriam totius mundi. Ideo fugiet a te omnis obscuritas. Haec est totius fortitudinis fortitudo fortis. Quia vincet omnem rem subtilem, omnemque solidam penetrabit. Sic mundus creatus est. Hinc erunt adaptationes mirabiles, quarum modus est hic. Itaque vocatus sum Hermes Trismegistus, habens tres partes philosophiae totius mundi. Completum est quod dixi de operatione Solis”.

Besides forming the immediate source for the motto of emblem 1, the text of the *Tabula* also forms the background for the first part of the epigram and of the discourse. The first paragraph of the discourse alludes to the hierarchy of the elements: earth is the coarsest and heaviest element; when earth becomes finer, it passes into water; water, which becomes finer, turns into air; air, which becomes thinner, turns into fire; fire is divine and the most exalted, earth is material and has sunk deepest on account of its heaviness.

The last paragraph speaks about the Son of Philosophy, who will be born, and R. Lullius (2nd paragraph) calls him the Stone (the Philosophers' Stone) and equates him with fire. In the 2nd paragraph Maier enlarges on the domains in which the Son of Philosophy may manifest himself. In the chemical field he is sulphur, carried in mercury; this relates to the transmutation theory, as developed by Jābir in Arabic alchemy. He considered sulphur and mercury as being the component parts from which all elements had been built up; the various differences between metals were caused by the different proportions in which sulphur and mercury were mixed.

"The root of the cube" refers to mathematics, in which the key of solving the riddle of the cosmos is contained. In the field of music Maier mentions the fifth; a pointer to the number system which is at the root of the structure of the cosmos and finds its expression in the numerical intervals, from which earthly music and the harmony of the spheres originate. With regard to geometry, it is the point from which the lines proceed (see embl. XXI, last line of the epigram: "You will understand everything, if you understand the theory of Geometry", as an encouragement to the searcher for the Philosophers' Stone). In astronomy, it is the centre of the planets Saturn, Jupiter and Mars, that is to say it is Sol, the solar force, into which all planets and the metals, called after them, should develop.

The third paragraph deals with the rise and descent of the elements, as they become thinner or heavier.

After that Maier compares the volatile, common mercury and the heavy, philosophical Mercury with Mercury, the messenger of the Gods, who also occupies a mediatory position between heaven and earth (4th paragraph).

In the fifth paragraph Maier continues the comparison with mythology. Of the sons of Boreas, Calais was white-haired and

Zetes red-haired. This is an allusion to a chemical meaning. White and red are the two stages in the colour process for preparing last the Philosophers' Stone. (This colour symbolism occurs in several emblems of the *Atalanta Fugiens*, e.g. embl. VI, IX, XI, XXII, XXXII, XLI). It is said of Zetes, one of the two brothers, that he is winged; this is an allusion to the contrast winged—wingless, a symbol for the evaporation and ascent of the matter in the retort, and the depositing of it at the bottom of the retort, or, more generally, for the ascent of the light elements and the descent of the heavy elements. By showing a connection between a light element and God, and a heavy element and man, it becomes a symbol for the rising of the soul to God and the descent of the soul into the substance. (The contrast winged-wingless recurs in several emblems of the *Atalanta Fugiens*; e.g. embl. VII, XVI, XLIII).

The relation between alchemy and the legend of Jason and the Golden Fleece reaches back to at least the 10th century; the Golden Fleece was thought of as a sheep's skin, on which the formula for the transmutation of metals was written.<sup>8</sup>

In the last paragraph of the discourse Maier quotes three alchemical sources, all of them in connection with the *Tabula Smaragdina*. In the last sentence it becomes clear that the "Son of Philosophy" holds the connecting position between the sky and the earth, because the birth of our son takes place in the air, and to be born in the air is to be born after the manner of the philosophers; for he ascends from the earth to the sky and again descends to the earth, in order to unite the higher and lower forces. (The theme of birth in the air and returning to the earth is given in embl. xxxiv).

From the very first alchemy and natural philosophy were synonymous. Hermes wrote about the "work of Nature", Maier says. The emblems in the *Atalanta Fugiens* deal with the secrets of Nature, just as above each of the emblems "*De Secretis Naturae*" is written. The Fraternity of the Rosicrucians tries to approach God by penetrating the secrets of Nature. Maier emphatically writes in *Silentium Post Clamores* that the secrets of Nature are of the same kind as the secrets the Fraternity professes.<sup>9</sup> Hence it follows that Maier

<sup>8</sup> See the commentary of embl. xxxix quotation from Suidas, *Lexicon*.

<sup>9</sup> M. Maier, *Silentium Post Clamores*, heading of Chapter 2: "*Naturae Arcana inprimis Esse Eiusmodi, Qualia Fraternitas Germanica Confessa est*".

—here as in his book *Symbola Aureae Mensae*—puts the doctrine and wisdom of the Fraternity of the Rosicrucians on a par with the contents of the *Tabula Smaragdina*, the oldest alchemical-esoteric source ascribed to Hermes, with which Maier starts the emblems in the *Atalanta Fugiens*.

In *Symbola Aureae Mensae* Maier shows a relationship between the time in which alchemy came into existence, and his own time; he does not, however, accept all the individuals who were engaged in this field as "brethren in the chain". He rejects those who exercise magic practices and who practise without thorough knowledge of the subject, pushing themselves forward with unfounded claims. In his book *Examen Fucorum Pseudo-Chymicorum* he bitterly attacks such people. One of them is Agrippa of Nettesheim, who lived in the first half of the 16th century and who had devoted himself to occult sciences. Agrippa led an itinerant life; his restlessness and the resistance he aroused, drove him from town to town. As far as medicine was concerned, he opposed the settled, rational, Galenic medicine and preached his own practical application of it. He was aggressive in an unsettled time and wanted to replace settled ideas with magic and cabbalism. He was a typical contemporary of Paracelsus. Agrippa of Nettesheim had a great reputation as a magician, was well versed in many kinds of sorcery and was in touch with devils and demons.

Agrippa did not write a book about the transmutation of metals, although he experimented in the alchemical field; the result was that he could not make any gold without gold, and neither could he with the essence of gold increase the original quantity of gold.<sup>10</sup> In *De Incertitudine et Vanitate Scientiarum* he even denies the possibility of the transmutation of metals.

In his work *De Occulta Philosophia* Agrippa alludes to a secret society, the members of which are widely scattered and who are bound by oath not to reveal the whole of their knowledge.<sup>11</sup>

In his *Examen Fucorum Pseudo-Chymicorum* Maier weighed Agrippa of Nettesheim in the balance and found him wanting: "Somewhere Cornelis Agrippa states (see note 10) that he has been able to separate this fine essence from gold; it is evident from his

<sup>10</sup> Agrippa of Nettesheim, *De Occulta Philosophia*, I, xiv.

<sup>11</sup> *Idem*, I, viii, 7.

letters what kind of man he was, a man deeply sunken in poverty and burdened with debts, a man to whom this art, even if he had been acquainted with it, would not have been of any profit".<sup>12</sup> It is to this individual that Maier refers in the epigram of emblem 1. In the last lines of the epigram Maier warns that the "Son of Philosophy" has to be born under a lucky star, and not like a child delivered by a caesarian section, not as a useless abortion, not like an Agrippa. In Pliny's works,<sup>13</sup> Agrippa means a coccyx birth, where the mother suffers pain. In the same way the abortive "Son of Philosophy", Agrippa of Nettesheim, made his mother Sapientia suffer.

So the play on words "Agrippa" represents an attack on Maier's part on Agrippa of Nettesheim, who is typical of the group Maier detested, the "Puffers and Pseudo-chemists", who, with their obscure magic practices, their quackery and ignorance, can be likened to the aborted Agrippa. They are contrasted with the Fraternity of the Rosicrucians and the hermetic philosophers, of whom Maier spoke in the *Symbola Aureae Mensae*; the Rosicrucians, whose only concern was to endeavour to fathom, with their great erudition and wisdom, the natural forces of creation.

## EMBLEM II

(fig. 2)

### MOTTO

His nurse is the earth.

### EPIGRAM

Romulus is said to have been nursed at the coarse udders of a wolf,  
But Jupiter to have been nursed by a goat, and these facts are said  
to be believed:

Should we then wonder if we assert

That the earth suckles the tender Child of the Philosophers with its  
milk?

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<sup>12</sup> M. Maier, *Examen Fucorum Pseudo-Chymicorum*, 41: "Cornelius Agrippa testatur alicubi, se potuisse ex auro hunc subtilem spiritum extrahere; Interim qualis vir hic fuerit, ex eius epistolis apparet, nempe egestate obrutus et obaeratus, cui hoc artificium, si id sciverit, nihil profuerit".

<sup>13</sup> Pliny, *Hist. Nat.*, 7, 9.



If an insignificant animal nursed such great heroes,  
Shall he not be great, who has the Terrestrial Globe as a nurse.

### SUMMARY OF THE DISCOURSE

The Peripatetics and the most sound of the philosophers assert, that food changes into the substance of the one who is nourished, and is assimilated into the one who is nourished, not before, but after this change. This truth is held to be irrefutable. For why should it be necessary for the food to undergo further changes in order to change its own essence, if it was already before it was changed, a part of the one who was fed on it; for it would then no longer be the same as the one who had fed on it. And how could substances such as wood and stones, which could not be assimilated into the one who had to be fed, serve as food? The one proposition is nonsense and the other is unnatural. A young human being may be nourished by the milk of animals, because it can be assimilated, but according to physicians, the mother's milk is the most beneficial, because it passes on to the child the substance and strength of the mother.

This harmony dominates the whole of nature, for the like enjoys the like (see emblem xx, motto and quotation of Democritus in the commentary) and the one follows unquestioningly in the tracts of the other. The same happens in philosophical work; It is regulated by Nature (see emblem XLII), just as is the growth of the child in the mother's womb. So also a father, a mother and a nurse have been attributed to the philosophical child. Just as in the case of man and animal it comes into being from the twofold seed and then grows as an embryo does. Just as a woman must moderate eating, drinking, warmth etc. during her pregnancy in order to prevent a miscarriage, in the same way one must set about philosophical work with moderation.

In philosophical work too, the seeds have to be united. When the seed is found already united, like that of a cock and a hen in an egg, then the philosophical work is still more natural than the coming into existence of living beings (see embl. xxx and VIII). The philosophers say that the one comes from the East and the other from the West, and become one (see embl. XLVI and XLVII); what does this mean but combining in a retort, a moderate temperature

and nourishment? The retort is artificial, it is true, but it makes no difference whether a nest is made by the hen or by the farmer, for the coming into being of the egg will be the same. Warmth is a natural force, regardless of whether it emanates from the moderate fire of furnaces, from putrid manure, from sunlight, from the mother's body or from another source. Thus the Egyptians used the heat of furnaces to hatch out eggs, and silk-worms and especially hen's eggs are said to be hatched by the tepid warmth of girls' breasts. So Art and Nature assist each other; nevertheless Nature appears to be the teacher and Art the servant (see embl. XLII).

One may wonder why the earth is referred to as the nurse of the philosophical child, since barrenness and dryness are the main properties of the element earth. The answer to that is that not the separate element earth is meant, but the whole Earth, in which all elements are present. It is the nurse of Heaven, not because it resolves, washes and moistens the foetus, but because it coagulates, fastens and colours the latter and changes it into sap and blood. For food brings about an increase in length, width and depth. Therefore the nurse of the philosophical child is rightly called Earth. The Earth contains a wonderful juice, which changes the nature of the one who feeds on it, as Romulus is believed to have been changed by the wolf's milk into a billicose individual.

#### SOURCE OF THE MOTTO

The source of the motto is, just as for emblem I, the *Tabula Smaragdina* (*Theatr. Chem.* I, 362):

"Nutrix eius Terra est",  
 "Its nurse is the Earth".

#### COMMENTARY

The discourse is a commentary on the *Tabula Smaragdina*; the first paragraph stresses the assimilation of food into the one who is fed; from the motto and the last paragraph of the discourse this appears to be the assimilation of the earth and the sky into each other.

The important alchemical thought that the process in the retort is the same as the process in nature is most clearly described in the

comparisons with the procreation, growth and nourishment of man and animal. The comparisons which Maier indicates in this discourse were depicted by him in several other emblems, e.g. Nature as a guiding woman in embl. XLII, the alchemical process as a process of nature, in which the alchemist is involved like the farmer in his work in the field, in embl. VI; the father and the mother of the philosophical child in the form of Sun and Moon, as the *Tabula Smaragdina* indicates in embl. XXX; its nurse in embl. V, in which the philosophical child appears as a toad; the comparison with an egg in embl. VIII, the union of the two seeds from East and West in the embl. XLVI and XLVII, represented by two eagles, a dog and a wolf respectively.

To the short indication of these themes in the discourse of embl. II Maier adds (in the 3rd paragraph of it): "What does this mean but the combining in the retort, moderate warmth and nourishment"? Warmth is the active force in matter, regardless of the manner in which that warmth is obtained. The retort is the place in which the development and nourishment takes place, independent of whether that retort is artificial or natural, as, for instance, the glass retort, in which the alchemist converts lead into gold, or the field, in which the wheat germinates, or the bowels of the earth, in which the base metals mature into gold, or the egg, in which the chicken develops, or the womb in which the child grows, or the Terrestrial Globe, which feeds the Sky, "because it coagulates, fastens and colours the foetus and turns it into sap and blood" (discourse, paragraph 4).

This passage corresponds with the idea of the *Tabula Smaragdina* that the forces of the cosmic soul should be concentrated into one solid matter, called the Philosophers' Stone, or *Tinctura Rubea*, with which all that is imperfect can be brought to perfection.

### EMBLEM III

(fig. 3)

#### MOTTO

Go to the woman who washes the sheets and do as she does.

#### EPIGRAM

Let not he who loves scrutinizing secret dogmas

Neglect to take as an example everything that can help him;  
 Don't you see how a woman is accustomed to cleaning dirty laundry  
 By pouring hot water over it?  
 Follow her example, so that you will not fail in your art,  
 For the water washes the precipitation of the black body away.

### SUMMARY OF THE DISCOURSE

If the dirt in the linen comes from the earth, it is cleaned with the next element, that is water. After that it is exposed to the air, and thereupon freed from moisture and dirt at the same time by the fire, the fourth element, in this case by the sun-warmth. If this process is often repeated, even the dirtiest things become clean again. Women have taken this over from Nature. For animals' bones, which were first black and unclean, became repeatedly drenched by rain, dried by sun-warmth, so that at last they became completely white, as Isaac<sup>1</sup> states.

The same happens to the philosophical subject: first it is coarse and dirty, but the philosophers cleanse it with philosophical water, till it is white and perfect. The whole process of calcination, ascending, dissolving, distillation, precipitation, coagulation, hardening and the other processes are prepared by one washing; for he who uses water to wash something which is unclean, does something that is also achieved in many other ways. "For the clothes of king Duenech (symbol xxviii) which are dirty with sweat, have to be washed by fire", says the *Rosarium Philosophorum*, "and they have to be burnt by water". Thus fire and water seem to possess each other's properties, but philosophical water and fire are not the same as common water and fire.

Unslated lime and Greek fire ignite by water and are by no means extinguished by it. This is against the nature of combustibles. Thus it is also said that camphor ignites in water, and the Gagatestone is more easily extinguished, according to Anselmus de Boodt,<sup>2</sup> by oil than by water, because oil blends with it and suffocates the fiery body; but water and fat do not mix and water gives way to fire, unless the water sweeps over the whole burning object, but fat floats on water, just as oil does; therefore water is useless for ex-

<sup>1</sup> Isaac Hollandus, see bibl. under Hollandus.

<sup>2</sup> see bibl.

tinguishing a petroleum fire or other such burning substances. Burning coal has to be extinguished with dust and grit. Also Tacitus says something about fire which cannot be extinguished by water, but must be suffocated by throwing carpets over it. So there appears to be a considerable variety of types of fire and of ways of kindling and extinguishing them.

There also exists a great variety of liquids; there are many differences between milk, vinegar, spirit of wine, brandy, aqua regia and common water. And that is not all; solid matter can sometimes endure fire for a long time, as is known from Antiquity. Rich people then may have clothes made of byssinus,<sup>3</sup> which were cleansed by fire, until the stains had been removed and the material had obtained its former freshness. The story about the incombustible hairs of a salamander is improbable. Some consider the story about an Antwerp woman having made a dress out of tallow and such products and also purifying it by fire, to be true.

However, we are not here discussing combustible matters; nevertheless the philosophical work has to be considered in these various aspects. In the philosophical work, fire, water and matter are not of an everyday nature; for the philosophers water is fire; and fire is water. The philosophical water washes and coagulates at the same time; the same is true of their fire. Their sheets or clothes have the character of silk or prepared tallow: for the method of preparation is not known to everybody. In order to wash them the philosophers have a lye, not from the ashes of oak-trees, but from the ashes of metal, because the latter is more durable, and from water, which is not common water, but water hardened under the sign Aquarius into show and which should be of a finer substance than the water from the marshes; by reason of its fineness it penetrates into the inner parts of the philosophical body, into the black and impure parts, to wash and clean them.

#### SOURCE OF THE MOTTO

I did not find the literal text of the motto. Maier, however, has not drawn the comparison between the alchemical work and women's work from his own imagination, but from the treatise *Tractatus*

<sup>3</sup> βύσσινος adj. to ἡ βύσσιος, a fine, yellowish kind of flax used by the Indians, and the linen made from it. With Strabo it has the meaning of cotton.

*Opus Mulierum et Ludus Puerorum* (in: *Art. Aurif.*, II, 184-219), a writing in which the alchemical process, consisting of mixing, washing and cooking the elements of fire, earth, air and water, is compared with women's work and child's play, just as in Maier's emblem III. The source for that motif is the *Turba* (in *Art. Aurif.* I, 10): "..... Nunc autem plumbi albi, dispositionem monstravi, quo noto nihil aliud sequitur, quam Opus mulierum et Ludus puerorum", "..... Now, however, I have demonstrated the systematic arrangement of the white lead, and when that is known, nothing else follows but Women's work and child's play", (this quotation is the source of embl. XXII connected with embl. III).

### COMMENTARY

In the epigram Maier encourages one to use as an example anything which may be of help for discovering secret tenets; the alchemical literature gives more than enough examples and that is the reason why alchemical literature is sometimes more obscure than is necessary, because factual simple tenets appear in the most different shapes and the details of them vary from one to another.

In the first paragraph of the discourse Maier illustrates the washing process with the example of bones bleaching under the influence of the elements, becoming progressively more refined; the black colour and superfluous liquid disappear and the outcome is pure white colour and dryness. In the second paragraph he applies this to the alchemical process; in the third paragraph he mentions some examples of matters, from which he draws the conclusion that there are many kinds of fire. In the fourth paragraph he points to the differences between the various liquids and between the various solid matters.

In the last paragraph Maier stresses the fact that philosophical water, fire and matter are no common fire, earth and water. The philosophical water thoroughly purifies the philosophical matter.

Maier has depicted washing and making white in various emblems; from the way in which he did so, the polyvalent meaning of it appears. The making white, as one of the stages of the transmutation process, goes back to the time in which alchemy came into existence, when by making gold, making metals goldcoloured

was understood. Consequently the conceptions, accepted in the dyeing and colouring technique of matters and metals, were introduced in alchemy. The development of the alchemical process could be established by the colour that appeared: black characterized the initial stage, white the stage of purity; a purity that ought to be reached before adding the dye, as a result of which a red colour appeared, which was proof that the *tinctura rubea* had come into being. The washing of the sheets in embl. III was, then, reminiscent of the dyeing of materials which had to be bleached well before they went into the dye-bath.

This was not only true of the dyeing of materials but also of metals; before gold was acquired by the transmutation, silver, or white lead came into being; this white lead is spoken about in embl. XXII, with the explanation in the epigram that that whiteness should be obtained by expelling the black; expelling the black is represented by: "throwing snow in the black face of Saturn" (epigr. embl. XXII). Still looking for the explanation in the chemical field this means: making the lead white; for lead belonged to the planet Saturn. This planet symbolizes coldness, inertia, sombreness, *atra biliousness*, because of all planets Saturn is farthest away from the life-giving sun; these properties of Saturn are rediscovered in the human constitution, coldness, inertia, sombreness, *atra-biliousness*. Thus the contents of embl. III—washing, removing the blackness—extend to the medical field, for the Saturnian melancholy, the *atra biliousness* must be driven away by washing; now Maier expresses this in embl. XXVIII, in the allegory about king Duenech, who is washed in a steam-bath and is freed from his black bile in this way.

Another variant stands out from embl. VI; gold should be sown in white earth, in other words the perfect should be sown in the purified, or gold in white lead. Beside the chemical meaning it appears from the source of that emblem, that the emblem also refers to man's soul, which, cleansed of the black of sin, is susceptible to the divine light. (Also embl. XI has such a double meaning).

Finally the purifying meaning of the water and the washing (again a polyvalent meaning) appears from embl. XIII. It deals with the philosophical ore, which is dropsical, and, in order to be freed afterwards, wants to be washed seven times in the Jordan. The philosophical ore is compared with the Old-Testament Naaman,

who also bathed in the Jordan to be freed from his illness. But the history of Naaman is a prefiguration of baptism; the Jordan water expels the illness, the baptismal water purifies the soul.

These emblems, mentioned in connection with embl. III, explain the meaning of it: the earthly, atrabilious man with his soiled soul, is like the linen, to which the dirt of earth sticks (embl. III, discourse, paragraph 1); he is redeemed in the steam-bath from his melancholy (embl. XXVIII) and from his sins by baptism (embl. XIII). Fire and water both have a purifying effect, the fire expels dirt and moisture (embl. III, discourse, paragraph 1); water expels dropsy from the philosophical ore, cures Naaman and purifies his soul; the heat of the fire (God) makes it white, just as the heat of the fire (Sun) makes the black animals' bones white and dry (embl. III, discourse, paragraph 1).

#### EMBLEM IV

(fig. 4)

#### MOTTO

Join brother and sister, and hand them the cup with the love potion.

#### EPIGRAM

The human race would not be so numerous now in the world,  
 If not, as first wife, the sister had been given to the brother,  
 So join two descendants of one pair of parents with confidence,  
 That they may live in marriage as husband and wife,  
 Drink to each of them from the cup with the sweet love potion,  
 And their love will raise the hope of a fruit.

#### SUMMARY OF THE DISCOURSE

A divine and a human law rightly forbid marriage between near relations. When, however, the philosophers speak about a marriage between mother and son, or between father and daughter, or between brother and sister, they are not in defiance of this law; for the philosophical figures that marry each other are to be compared with the sons and daughters of Adam, who also married each other, because there were no other human beings at the time.

The reason why in the art of the philosophers a brother marries



his sister is that they are identical in substance, so that like is united with like. In essence and birth they are one, in sex they are two, and their love is as necessary as that of Adam's children. The brother is hot, dry and choleric; the sister is cold, moist and phlegmatic. They are very different in temperament; in love and fertility they are very well matched. Fire cannot be struck from two hard stones, nor from two soft stones, but it can be done from a hard and a soft stone. No more is fruit to be expected from a man and a woman who are both burning or both cold, but it *is* from a burning man and a cold woman. In his book *De Occulta Natura Miracula*, Lev. Lemnius asserts that a very hot man is still better than a very cold one. Therefore, according to the philosophers, the union of brother and sister is right.

If offspring of a nanny-goat, a female dog or a hen is desired, they should be united with a billy-goat, a male dog or a cock; for like should be united to like; this rule is also true in the case of vegetation and also as regards metals. However, they should be given a love potion, to make them love each other, just as the daughter of Lot, who fell in love with her father, when through drunkenness, she had lost her sense of shame. People are greatly indebted to medicine; thousands of human beings would not exist if medicine had not taken away the cause of the sterility of their ancestors, or had not protected women from miscarriage.

For the same reason the love potion is given to these newly-married couples, to strengthen their love, to remove sterility and to guard against miscarriage.

#### SOURCE OF THE MOTTO

(Pseudo)Aristotle, *Tractatulus Aristotelis de Practica Lapidis Philosophici*, in: *Art. Aurif.* I, 387-399, p. 389:

"Accipe ergo filium tuum charissimum, et sorori suae albae aequaliter coniunge: propina illis poculum amoris".

"Therefore take your most beloved son and unite him with his white sister: hand them the cup of love potion to drink".

## COMMENTARY

The fundamental idea in alchemy that all manifestations emanate from one primary matter, includes the thought that everything that is united, is related. This is the basic thought of the incestuous representations in alchemy. The classic incest between brother and sister was of old the example for the *Opus Alchemisticum*. In addition to embl. iv the theme of incestuous relations occurs in several other emblems of the *Atalanta Fugiens*: in embl. xxxix as marriage between mother and son with the motto: "Oedipus, having conquered the Sphinx and having killed his father Laius, married his mother".

As union between father and daughter—to which Maier also alludes in embl. iv, discourse, paragraph 3, speaking about Lot—in embl. xli (epigram, 1st line): "From her own father, Myrrha received the beautiful Adonis".

As a marriage of mother and son or brother and sister in embl. xliv, with the motto: "Typhon kills Osiris by a ruse, and after that he scatters his limbs far and wide, but the famous Isis collects them" and the epigram, 3rd line: "Isis is the sister, wife and mother of Osiris".

To these emblems Maier's words from the discourse of embl. iv (1st paragraph) are applicable, where he speaks about a marriage between mother and son, father and daughter, brother and sister.

As a reason for their marriage he mentions (2nd paragraph) the union of like with like. This is inspired by the statement of the Greek alchemist Democritus: "Nature enjoys nature", ἡ φύσις τῆ φύσει τέρπεται,<sup>1</sup> a recurring theme in alchemical literature. Offspring are exclusively to be expected from a union of the like with the like, which are of one essence, but of two sexes. Thus a chicken comes from a cock and a hen, and this rule applies to the animal, vegetable and mineral fields (discourse, 3rd paragraph).

Brother and sister are the personifications of the contrast between the elements, as appears from Maier's words (discourse, 2nd paragraph): "The brother is burning hot, dry and choleric, the sister is cold, moist and phlegmatic". Their properties are the properties of the contradictory elements, fire and water; fire is hot and dry,

<sup>1</sup> M. Berthelot, *Coll. des Anc. Alch. Gr.*, II, 43-60.

water is cold and moist. The temperaments correspond with the elements; the choleric man is classified under the element of fire, the phlegmatic one under the element of water. "Brother and sister are one in essence and birth", that is to say, the elements have arisen from one primary matter. "In sex they are two", that is to say the properties of the elements group themselves in a pair of contrasts. This alchemical theory is based on the theory of elements of Empedocles of Akragas, who considered the attracting and repelling forces, *φιλία καὶ νεῖκος*, love and hate between the elements, as the strength which forms the Universe.

So brother and sister were the symbols of the contrast between the elements: the contrast or hate between the elements, however, must be converted into unity or love and the means by which this is to be done, is the love potion. The source from which Maier borrowed the motto gives a further explanation of this love potion: "Pour the honey sweet liquid over them, till they are satisfied and disintegrate into extremely small pieces".<sup>2</sup> It further appears from the aforementioned source that there the first stage of the preparation of the Philosophers' Stone is represented, namely the "dissolutio lapidis", the solution, the destruction, the "putrefactio" of the matter from which the Philosophers' Stone is to be composed.

The alchemical theory of this is that matter, as it presents itself to man, is a composed matter, which should first be dissolved and destroyed, in order to discover the primary matter. Out of this primary matter the Philosophers' Stone can evolve. The expression: "to disintegrate into extremely small pieces" with reference to the primary matter, makes one suppose that he is here considering the atomistic theory of Leucippus and Democritus, according to whom atoms are the smallest, indivisible, invisible particles of matter. Out of this all forms are composed. So destroying the matter, in order to find the primary matter, out of which the Philosophers' Stone should evolve, would mean the splitting up of the combined atoms. Maier also symbolizes this disintegration into "partes minutissimas" in embl. XLIV, which deals with Osiris' death.<sup>3</sup> Maier also depicts the solution of matter after the contrasts have been united in

<sup>2</sup> in: *Art. Aurif.*, I, 389: "Superfunde illis mulsum donec inebrientur et in partes minimas dividantur".

<sup>3</sup> See Commentary on emblem XLVIII, note 10 and 12.

embl. L: the woman and the serpent, who both die after their union and dissolve in each other's blood. In embl. XLVIII the return to primary matter is represented by an allegory about a sick king.<sup>4</sup>

So the love potion of embl. IV contains a dissolving power, by which brother and sister, symbol of contrast, unite into their origin, the primary matter.

### EMBLEM V

(fig. 5)

#### MOTTO

Put a toad to the breasts of a woman, that she may feed it,  
And the woman may die, and the toad grows big from the milk.

#### EPIGRAM

Put a cold toad at the breast of a woman,  
So that it may drink from the source of milk like a child.  
Let it swell into a large growth,  
And let the woman become ill and die.  
Make a noble medicine from it,  
Which drives the poison out of the human heart and takes away  
destruction.

#### SUMMARY OF THE DISCOURSE

All the philosophers agree that their work is nothing but men's and women's work; for it is manly to beget and to rule over the woman; and it is womanly to conceive and to be pregnant, to bring forth, to feed, and to submit to the man. At first she feeds her child with her blood, after that with her milk and, when it gets bigger, with more solid food. It seems horrible when the philosophers say that a woman should feed a toad; it is a poisonous, hostile animal. Through nursing the toad, the woman dies and the toad becomes big. The woman dies in the same way as Cleopatra did: because the toad poison gets into her veins. In the *Turba*, Theophilus mentions a woman, who is united with a dragon (embl. L). The words of the philosophers about nursing a toad sound cruel, but the poisonous

<sup>4</sup> *Ditto*, like note 3, and p. 292-294.

animal is the son of the woman, and therefore, of course, it must be fed by her milk. But how did she come by such a son?

In his commentaries Guilielmus Novobrigensis, an English author, wrote—may others judge how reliable he is—that, in a quarry in the bishopric of Vinton, a large stone was cleft, in which a living toad with a gold chain was found. At the order of the bishop, however, he was locked in eternal darkness again, because it was feared that this was a bad omen.

In the same way, *this* toad is distinguished by its gold; not artificially, on the outside, it is true, with a gold chain, but at the inside in a natural way, like the stones Borax, Chelonite, Betrachite and others. This toad, seen as a *stone*, however, far surpasses these said stones in its activity, as a remedy against all kinds of animal poisons and usually it is enclosed in gold as in a wrapping, so that it cannot be damaged or destroyed. But it must be obtained from the animal domain; if, however, it is obtained from subterranean quarries, and its form composed of stone taken from here and then used in its turn, it is chosen from the best minerals, which can aid the heart. For in these things the true Philosophers' Stone is found, and not in a quarry, as that story-teller claims, and moreover, the Philosophers' Stone has the gold within and not as an ornament on the outside. For why should the Philosophical Toad adorn itself, whilst it lives locked in fetters and darkness? Perhaps to be greeted in full pomp by the dung-beetle, if it happened to meet the latter in the darkness? And what subterranean goldsmith would have made that gold chain for him in that case? Perhaps the father of the two boys, who sprang from the earth of San Martinus, or from the earth itself? or the two dogs from the quarry? Should all this be accepted on the word of the one author?

#### SOURCE OF THE MOTTO

(Pseudo)Aristotle, *Tractatulus Aristotelis de Practica Lapidis Philosophi*, in: *Art. Aurif.*, I, 394-395 (also the source for the preceding embl.)

p. 394: "Liga ergo mulieri ablactanti manus post tergum ut non possit affligere filium: appone super mammas eius bufonem, ut ablactet eum donec moriatur, et fuerit mulier mortua in igne, erit bufo grossius de lacte".

"So tie the hands of a nursing woman behind her back, so that she cannot harm her son; put a toad to her breasts, that she may feed it, till she dies, and the woman will die in the fire and the toad will get bigger from the milk".

### COMMENTARY

In the writing that Maier uses as source for the motto of this emblem, the preparation of the Philosophers' Stone is represented by four stages: in the first stage the matter is decomposed (see embl. iv), in the second stage the purification and cleansing takes place, in the third stage the matter should be formed into a slightly solid, pliable substance and in the last stage this substance should be hardened into stone, the *Lapis Philosophorum*.

The woman who suckles the toad represents the third stage, where the purified, very dry earth should be made pliable by adding water to it. The drier the earth, the more water should be added, and finally all water is absorbed; that is to say the toad, which represents the element earth, grows, and the woman, who represents the element water, dies.

To this can be applied a quotation from Lullius *Codicillus*<sup>1</sup> also. He compares the suckling of the Stone with suckling a child at the mother's breast (Maier uses this motif also in embl. xxxv, represented by Ceres, who suckles Triptolemus by day and puts him into the fire by night to be hardened), by which the child grows and the mother dissolves: "Coagulatio unius naturæ non fit absque dissolutione alterius", the toad coagulates, becomes pliable substance, grows and the woman dies; "forma advenientis non potest fieri absque corruptione præexistentis", so the subsequent form proceeds from the previous one: the toad and the woman are son and mother. The whole substance of the one who feeds, changes into food and the food changes into the fed one "sicque omnis solutio mortificatio est (the woman), sicut omnis congelatio vivificatio est, et causa vitæ propinquissima" (the toad).

Another starting-point for discovering the significance of the toad is the story in the discourse of emblem v (2nd paragraph), about a toad found in a quarry and making its appearance alive and with a

<sup>1</sup> Quoted by D. Lagneus, *Harmonica Chemica*, in: *Theatr. Chem.*, IV, 755-756.

gold chain, out of an unhewn stone. Maier sneers at the author of this story, who represented it as a true story. The motif, however—a humble animal adorned with a chain of gold, locked in the darkness of an unhewn boulder and appearing alive in the light—is a useful symbol for portraying the thoughts of a man like M. Maier; that is to say the Philosophers' Stone lives hidden in rough, dark matter; or the Light, the Spirit, striving after its origin, is locked up in matter.

In his coat of arms Maier has a toad, chained to an eagle (*fig. 52*). The coat of arms occurs in Maier's portrait, in *Symbola Aureae Mensae* followed by eulogies of Maier and of his distinguishing marks by various authors.<sup>2</sup> Here Maier is compared with "the eagle, which, as the winged armour-bearer of Jupiter, successfully raises the slow toad from the cold earth". And in another: "The eagle flies up above the stars and leads virtue to the Deity without paying attention to the heavy weight of the earthly mud which is attached to it. The toad crawling along the ground resembles the rough, unformed man, who, in his wingless state, strives for Jupiter's golden ether. Maier is raised together with the eagle by heavenly virtues". Here the ideals of the Rosicrucians come to the fore.

Maier uses the emblem of the toad chained to the eagle in *Symbola Aureae Mensae* also as an emblem,<sup>3</sup> belonging to Avicenna, trained in astronomy, medicine, physics, mathematics and chemistry, "illius ingenium sublime et in rebus tam medicis, quam chymicis summa perfectio ex eius operibus satis elucescit . . .". This emblem bears the motto: "The eagle flying through the air and the toad crawling along the earth are the master" (*fig. 53*), and thereupon Maier describes the eagle as the mother of the Sun or Toad, meaning that the insignificant toad will at some point develop into the Sun, the darkness into light, the dark, black earth into light fire. For the toad is the earth, and the earth contains all elements necessary for the process of transmutation. For the earth is represented by a toad exactly for the reason that

"the toad moves slowly and walks with its head turned to the ground. It represents the philosophical earth on which, as on its foundation, the gold house should be built, for without the earth,

<sup>2</sup> M. Maier, *Symbola Aureae Mensae*, preceding the numbered pages.

<sup>3</sup> M. Maier, *ditto*, 192.

philosophical work would not be possible, because the earth prevents the air from volatilizing, because the earth provides tinder for the fire, by which it can be kindled and provides a cask for the water, in which it is preserved. In short, the earth contains all elements and holds them together in an inseparable bond. But may nobody think that this earth is pure; there is fire in it, it is true, but it is mixed with earth, air and water. In a certain sense it is a Chaos of earthly form; staying in hidden places and quarries and it should be prepared for use (just as the toad of embl. v)".<sup>4</sup>

The toad is chained to the eagle, just as the Microcosm is chained to the Macrocosm by a gold chain, a "Cathena Aurea". It is God who forged this chain, which connects all elements in a circular course. Thus R. Lullius says: "This is the gold chain and the circular course of the whole world, by which wise Nature guides all its instruments, namely by a circular course, which the highest creator has willed and still wills in his divine miracles and his infinite power"<sup>5</sup> (see also embl. x).

So emblem V depicts a phase out of this circular course. In embl. xv Maier symbolizes this circular course of the elements by the potter's work, in embl. xvii by the connection between four kinds of fire.

In alchemical literature the depiction and conception of the cathena aurea are associated with the cathena aurea mentioned by Homer in a speech of Jupiter to the collected gods and goddesses. Jupiter warns that he will throw anybody who will not obey him into the darkness of the Tartarus, into the deep abyss under the earth, bolted by iron gates and a copper threshold, as far under the nether world as heaven is above the earth. And in order to give an example of how much he surpasses gods and men in power, Jupiter thereupon incites the gods and goddesses to make a "gold chain" hang down from heaven and all to go and hang from it. Then they will see that they are not able to draw Jupiter from heaven to earth, but if Jupiter wished to give a pull at the gold chain, he would pull them all upwards, together with the earth and the sea and he would tie the chain around the top of the Olympus, so that the Universe would be suspended on high.<sup>6</sup>

<sup>4</sup> M. Maier, *ditto*, 199-201.

<sup>5</sup> R. Lullius, *Testamentum*, in: *Theatr. Chem.*, IV, 116.

<sup>6</sup> Homer, *Ilias*, VIII, 13-27.



Maier cites Homer's words about the gold chain in his book *Arcana Arcanissima* and interprets them in the sense already mentioned.<sup>7</sup> From this follows, that the other gods are previous stages of Jupiter. As Maier says: "Jupiter is the same as Pluto, Sol and Dionysus . . . . . ." (enlightening for the meaning of embl. xxiii), "Jupiter itaque et Juno, ut sunt frater et soror (embl. iv), maritus et uxor (embl. xliv), agens et patiens (the active and passive principle of nature, personified in embl. xxx), de uno eodemque subjecto intelligentur, de quo ante Saturnus (embl. xii) et Rhea, Osiris et Isis (embl. xliv), eiusdem conditionis et prosapiæ Hieroglyphicæ" (as mentioned in embl. xxxv, xxxix, xli and xlix).<sup>8</sup>

So the gods are analogous to the various phases in the preparation of the Philosophers' Stone; the gods of the nether world correspond to the killing and dissolving of matter, the nature gods correspond to the vivification and feeding of the Stone, the Sun-god agrees to the completion of the Stone. Moreover, the seven well-known metals correspond to the seven planetgods. It is obvious that, for expressing his thought about Macrocosm and Microcosm and about the connection between them, Maier had ample choice.

To sum up, the toad with the gold chain from emblem v symbolizes the connection between the elements, and the motto indicates the circular course, through which the one element changes into the other. Thus gold originates from lead, thus Macrocosm and microcosm are connected, thus the spirit rises out of matter into the light; this is also the meaning of Avicenna's emblem—the toad chained to the eagle—and the meaning of Maier's coat of arms. When the earth has been turned into water, and water into air and air into fire, the fire returns to the purified earth, in order to unite, as the *Tabula Smaragdina* puts it, the forces of the "inferiora et superiora".

In this sense the *cathena aurea* is represented in an allegoric picture of M. Merian<sup>9</sup> (*fig. 54*). They are two chains, fastened to the wrist of Sol and Luna.

<sup>7</sup> M. Maier, *Arcana Arcanissima*, 96.

<sup>8</sup> M. Maier, *ditto*, 107-108.

<sup>9</sup> Signed "M. Merian fecit", in the collected works *Musaeum Hermeticum*, folder 4.

*EMBLEM VI*

(fig. 6)

## MOTTO

Sow your gold in the white foliated earth.

## EPIGRAM

The farmers entrust their seed to the fat earth,  
 After having foliated it with their mattocks.  
 The philosophers have taught that gold must be scattered over  
 white fields  
 Which react like a light leaf.  
 When you undertake this, pay good attention to it,  
 For from the wheat you see, as in a mirror, that gold germinates.

## SUMMARY OF THE DISCOURSE

According to Plato the body of citizens is composed of a physician and a farmer, because their work consists of imitating and perfecting Nature; for they add something to what is given by Nature, or they take away something superfluous, as Hippocrates teaches in his medical science. The same is true of the farmer, who also adds something: ploughing, dunging and sowing; and further he anticipates the effect of nature, sun and rain, that is, the increase of the seed. The farmer pulls out the weeds and reaps the ripe fruit. The physician acts in the same way—as does the chemist from his standpoint—: he protects health and, if necessary, repairs it with medicines, he takes away the causes of diseases, he removes superfluous blood by bleeding the patient, gives strengthening food to the weak and removes noxious fluids by purging (the resemblance between the physician's work and that of the alchemist is further expounded by Maier in the discourse of *embl.* XIII (last part) and in the discourse of *embl.* XXVIII). In this way the physician imitates Nature in countless ways (*motto* *embl.* XLII) and corrects Nature, by the activity of his mind and his art.

Agricultural activities in particular reveal the secrets of Chemistry. The farmers have their fields, which they dung and in which they sow. The chemists also have dung, with which they fertilize their fields. The farmers use seed, in order to be able to reap. And

if the chemist did not use seed, he would, according to Lullius, resemble somebody who wants to paint a portrait of a man he does not know and of whom he never even saw a picture. The farmers expect sun and rain. In the same way chemists regulate their work with warmth and precipitation (by more or less warmth the matter evaporates in the retort or condenses). What more is necessary; chemistry runs parallel to agriculture; the latter portrays all chemical activities in an allegorical manner.

Therefore man in antiquity created Ceres and Triptolemus (embl. xxxv), Osiris (embl. xliv), Dionysus, the golden gods, connecting them with chemistry, but representing it as if those gods taught agriculture and vineculture to mortals. All these things were wrongly connected with the farmer's work by the ignorant. For these things are the most secret mysteries of Nature, which remain hidden for the common man under the allegorical veil of agriculture; but these secrets are explained by the Wise.

Therefore the philosophers say that their gold should be sown in the white, foliated earth, because they want the sowing of corn to be seen as an example, and this example to be followed. Jodocus Greverus in particular stressed this. The farmer, it is true, prefers fat, black earth and the philosopher white, foliated earth, but he also knows how to dung that well-prepared earth in an efficient manner.

Plants, animals and man multiply by means of seed, hermaphroditically (embl. xxxiii and xxxviii) and bi-sexually respectively.

In metals, however, this process comes about in quite another manner; for there a line originates from a point, a surface from a line, and a body from a surface. Now the stars have produced the point before the line, the surface and the body; for the point is the origin of all these things (embl. xxi, epigram, last line: "Know then that you will understand everything, if you understand the theory of Geometry"; and astronomy, as "geometry of heaven" is connected with this). Nature extends this process over quite a long period (metals grow in the earth and ripen from lead into gold after thousands of years); that is to say: "The heavenly Phoebus (fire as divine substance) generated a son under the earth, and mercury (the wind of embl. i) handed him over to Vulcan to rear him (the fire as food for the Stone), and to Chiron, that is to the artisan

(the alchemist) to form him, just as Ceres put Achilles into the fire to harden him" (embl. xxxv).

Chiron instructed this son of Phoebus in music and citherplaying. Achilles, however, is nothing but the philosophical subject—for he had a red-haired son Pyrrhus; if it were not for these two the Trojan war would not have been fought, as we have amply shown in our sixth book about the hieroglyphs.<sup>1</sup> For this reason we have also justifiable dealt with music in this book, in which we speak about the life and heroic deeds of Achilles.

For if music did great honour to such a distinguished hero, would it not make this little book more attractive? For angels sing, as the Holy Writ declares, Heavens sing, as Pythagoras states, according to the Psalmist, they sing of the glory of God, according to the poets, Apollo and the Muses sing, man sings, even when he is still a child, birds sing, donkeys and geese sing at their musical instruments, and consequently also we sing, and we do not do so without reason.

#### SOURCE OF THE MOTTO

(Pseudo)Aristotle, *Tractatulus Aristotelis de Practica Lapidis Philosophici*, in *Art. Aurif.*, I, 397:

"Seminate aurum vestrum in terram albam foliatam",  
"Sow your gold in the white, foliated earth."

This is the same source which Maier used for embl. iv and v. Like embl. v, embl. vi belongs to the third stage of preparation of the Philosophers' Stone. Therefore there is a connected meaning in embl. v and vi.

Besides in *Tractatulus Aristotelis*, the motto of embl. vi occurs in a great many alchemical writings; either literally or nearly literally; inter alia in: *Clangor Buccinae*, in *Art. Aurif.*, I, 550; and in: *Rosarium Philosophorum*, in *Art. Aurif.*, II, 312.

#### COMMENTARY

The first part of the discourse and the picture of embl. vi leave no doubt of Maier's intention of drawing a clear parallel between "chemistry and agriculture". The seed the farmer in the picture

<sup>1</sup> M. Maier, *Arcana Arcanissima*, book VI; Maier considers the Trojan war to be an alchemical allegory.

sows over the fields, is shaped like coins, and a number of them show the shape of the alchemical sign for gold, namely a circle with a dot in the middle. This tallies with the passage in the discourse (5th paragraph) which states that metals originate from a point and from there develop into a line and a surface (referring to embl. XXI). Maier further extends the parallel between agriculture and chemistry to the gods of agriculture, viniculture, earth and fertility, which, however, would contain chemical secrets in their essential meaning. Moreover he points to the resemblance between agriculture, medicine and chemistry.

The comparison between agriculture and chemistry occurs in alchemical literature as frequently as the comparison between chemistry and the man-woman relationship. A comparison with the work of agriculture occurs amongst other places, in:

Senior, *Tabula Chimica*, in: *Theatr. Chem.*, V, 212;

*Gloria Mundi*, in: *Musaeum Hermeticum*, 248-249;

Rasil Valentine, *Clavis VIII*, in: *Musaeum Hermeticum* 409-414, fig. p. 409.

White is the symbol of purity; when the alchemists have reached this, they are near their ultimate goal. That it is meant in various senses, appears from the following quotations:

*Clangor Buccinae*:

"Hermes said, sow your gold in the white, foliated earth, which means: sow the vapour and the colour-giving force in the white earth, which should be made white and pure by preparation, and in which no dirt is present".<sup>2</sup>

This picture comes from the colouring and dyeing technique in Antiquity; metals which had to undergo a change of colour, were exposed to metal vapours, which precipitated on the metal to be coloured and attached themselves to the surface. The meaning, however, developed from colouring the surface into colouring and changing the metals thoroughly. Maier symbolizes this thorough purifying and making white in emblem XI, with the motto: "Make Latona white". Maier represents Latona as the Goddess Latona, but, according to the source of that emblem, Latona is derived from "laton", which means electron, yellow silver, and as such conse-

<sup>2</sup> *Clangor Buccinae*, in: *Art. Aurif.*, I, 550.

quently has a bearing on the transmutation process of metals; namely changing black lead, by way of many transitional stages, amongst them electron, into white silver, changing white silver into yellow or red gold. On the other hand, for the transmutation process the colour symbolism—black, white, red—has been borrowed from the technique for dyeing substances, as mentioned above in emblem III.

A starting-point for another direction taken in the meaning of the motto "Sow your gold in the white, foliated earth" is to be found in the *Rosarium Philosophorum*,<sup>3</sup> in the text with an emblem under the motto:

"Hie schwingt sich die Sele hernider  
Und erquickt den gereinigten leychnam wider".

(Here the soul swings down  
And comforts again the purified body).

In the picture of that emblem (*fig. 56*) we see a tomb, on which a crowned hermaphrodite is lying; a small human figure dives down from the clouds to the hermaphrodite and in the foreground two black crows are seen, one of which is buried in the earth up to its head. The black crows represent the "putrefactio" or the "mortificatio" (in Maier's embl. XLIII the putrefactio is also represented by a black crow with clipped wings), the hermaphrodite represents "der gereinigte leychnam" or "the purified white earth" and the descending human figure "die sele", "the soul", seen against the background of the rotation of the elements, represents the risen element which descends into the purified matter, or the gold which has to be sown in the white earth, or the soul which returns into the matter and resuscitates the body, or in the words of the *Rosarium*: "mortuum vult vivificari et ægrotum curari", "the dead wish to be resuscitated and the sick want to be cured". The rotation of the elements and the uniting of material and immaterial again brings to mind the union of "inferiorum et superiorum" from the *Tabula Smaragdina* (see embl. I), as was mentioned in emblem V, which, in view of the fact that the mottoes of emblem V and VI both come from one source, is connected in meaning with emblem VI.

Death and resuscitation as symbols of the transmutation of mat-

<sup>3</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 311-313; fig. p. 311.

ter, combined with the comparison between alchemical work and the germination of the grain of corn (embl. VI, last line of the epigram) brings to mind Christ's words, which he spoke when he came to Jerusalem, knowing that crucifixion awaited him: "In truth, in very truth I tell you, a grain of wheat remains a solitary grain unless it falls into the ground and dies, but if it dies, it bears a rich harvest".<sup>4</sup> The passion, death and resurrection of Christ are reflected in the alchemical transmutation process; the Philosophers' Stone increases the gold by changing base metals into gold; wheat multiplies, when the grain dies in the earth, and Christ is the salvation of man by his death and resurrection. For the alchemists the death and the resurrection of Christ, the king of Heaven, is analogous to the death and resurrection of the Chemical King (as e.g. in embl. XXIV and XLVIII).<sup>5</sup> Microcosm and Macrocosm are united to each other by the rotation of the elements, by a "cathena aurea", by which Jupiter draws the whole Universe to himself (*Ilias*, see embl. v, commentary). In the same way, Christ draws everybody to him by his death and resurrection saying: "And I shall draw all men to myself, when I am lifted up from the earth".<sup>6</sup>

A single example may demonstrate that this association is really rooted in the alchemical literature. Riplæus, for instance, cites said bible text about the grain of wheat when discussing the necessity of the "putrefactio". The decay of matter is the only way of separating the elements:

"For bodies, all bodies, cannot be changed in a natural manner without the putrefactio, just as Christ testifies, saying: If the grain of wheat does not die in the earth, it will by no means multiply, and in the same way matter cannot be changed properly in any way, unless it perishes and unless the elements are separated in a natural manner and they are parted from each other". From the continuation of Riplæus' argumentation it appears that this separation of the elements in the first stage, the stage of the putrefactio, consists of separating darkness and light, good and evil: "So you have to go through a gate of darkness, if you want to acquire the light of Para-

<sup>4</sup> *New Testament*, John XII-24.

<sup>5</sup> H. M. E. de Jong, "Michael Maier's *Atalanta Fugiens*; commentary to embl. XLVIII," *Ned. Kunsthist. Jaarb.*, 1964, 168 sq.

<sup>6</sup> *New Testament*, John XII-32.

dise in purity". Further Riplæus represents the putrefactio as submerging into the diluvial waters, and perfecting the Philosophers' Stone as "reaping the red grapes from the vineyard of Noah". In the legends about the origin of alchemy Noah it was, who preserved the Philosophers' Stone from destruction in the ark. The harvest from Noah's vineyard is "the red lead, and just as the souls, freed from temporary punishments, enter the Elysium, where they live happily, in the same way our Stone will be cleansed from darkness in the purgatory fire and come to the light of Paradise".<sup>7</sup>

Lastly, to illustrate various aspects mentioned in emblem VI, I want to point to a picture from the work of Basil Valentine<sup>8</sup> (fig. 57). M. Maier values this work, *Practica Cum Duodecim Clavibus*, so greatly, that he attended to the first edition of the manuscript himself, together with two other works, under the title *Tripus Aureus*. The representation in the picture is as follows: within a walled-in space we see a field, which also represents a God's acre; a farmer sows in the ploughed soil; behind him four black crows are walking and on the ground before him lies a dead man with his head on a bundle of mown corn; in front, in the middle there is a cross; thus, there are the attributes of the putrefactio and of the farmer's work. To the right in the foreground there is an angel with a trumpet to resuscitate the dead and in the centre of the picture we see an opened grave, from which a human being rises and from which also the corn grows up high. In the background there are four crosses on the unploughed soil, probably representing the graves of the four elements. On either side sit two archers, their bows aimed at a target crowned by a key. An arrow has hit the bull's eye. The intention is, to get hold of that key, which gives access to the Arcanum Alchemisticum. Maier speaks about such a key in emblem xxvii and means by it the putrefactio. Thus is expressed in the words of the epigram: "Only one thing of little value is found in the world, which is the key". But he also means the Solomonian Wisdom, necessary for investigating the secrets of Nature; this meaning is clear from the discourse belonging to the aforementioned epigram.

<sup>7</sup> Quotations from: G. Riplæus, *Liber Duodecim Portarum*, in: *Theatr. Chem.*, III, 808-810.

<sup>8</sup> Basilius Valentinus, *Practica Cum Duodecim Clavibus* (key VIII), in: *Musaeum Hermeticum*, 1678, 409-414, fig. p. 409.



## EMBLEM VII

(fig. 7)

## MOTTO

A young bird came into being, flying up from the nest,  
And fell back into the nest again.

## EPIGRAM

The eagle had built a nest in a hollow rock,  
In which it hid and fed its young:  
One of them wanted to rise on its light wings,  
But was kept back by its brother, a wingless bird.  
That was why the bird, flying up, fell back into the nest, which it  
had left;  
Connect them, head to tail, and you will succeed.

## SUMMARY OF THE DISCOURSE

What Hippocrates, the important physician, says about the fluids in the human body, namely that there is not only one fluid, but several, because otherwise no different diseases could arise, *we* say about the elements of the world. If there were only one element, no change from the one into the other would be possible, and there would be no dissolution nor reproduction, there would be no meteors, plants, animals nor minerals; everything would be one, unchangeable.

Therefore the highest Creator has built up this whole organism of the world out of the dry and the wet, so that one passes into the other by affinity, and so that in that way bodies come into existence, which greatly differ in essence, properties, forces and effect. For the manifestations are built up from elements, which are mixed in an imperfect way, namely from the light elements fire and light, from the heavy elements earth and water, which, however, temper each other's effect in such a way, that the one does not flee without the other. Always one lets itself be seized and stopped by an other, following.

Earth and air are each other opponents and likewise water and fire. Nevertheless fire is kindly disposed towards air on account of their common property of warmth, and is also kindly disposed

towards the earth on account of the property of dryness. In the same way air is sympathetically inclined towards water, and the water towards the earth. In this way all elements are in close relation, or still better, connected with each other by bloodrelationship (as in embl. XIX); and they hold together in one composition; when the heavy elements predominate, the light elements are pressed down together with them; when the light elements predominate, the heavy elements rise with them. That is the meaning of the picture of the winged and the wingless eagle, the winged one being restrained by the wingless one (in embl. XVI this theme returns in the shape of a winged and wingless lion).

A clear example of this is found in the struggle between a falcon and a heron: because of its fast flight and its bold wingbeat the falcon has risen higher into the air than the heron; it seizes the heron and devours it, but is drawn down by the latter's weight and both fall to the ground. An example of the reverse situation can be seen from a hollow, wooden pigeon; because of the air, locked in the wooden body, it rises.<sup>1</sup>

In the philosophical work first the light elements have the mastery over the heavy ones, but they are conquered by the strength of the heavy elements. In course of time the eagle's wings get torn, the two birds become one big one—like an ostrich—which can eat iron and on account of its weight walks more on the earth than it flies in the air, although it has wings. About such things Hermes says, according to the author of the *Aurora*,<sup>2</sup> in Chapter V: "I have looked at the bird, which is honoured by the philosophers (embl. VIII), which flies as long as it is in Aries, Cancer, Libra or Capricorn; you will acquire it from pure minerals and rocky mountains the whole year through". In his *Tabula*<sup>3</sup> Senior speaks about the same, when he mentions the winged and the wingless bird, which hold each other, head to tail, and which cannot easily be separated. This is the action of nature, that the light metals are pressed down with the heavy ones, and the heavy elements are lifted together with the

<sup>1</sup> Maier refers to a mechanical flying wooden pigeon, constructed by Ἀρχύτας Ταραντῖνος, philosopher and mechanician circa 400 before Chr.; see Pauly-Wissowa, II, 600-601.

<sup>2</sup> *Aurora Consurgens*, in: *Art. Aurif.*, I, 217.

<sup>3</sup> Senior, *Tabula Chimica*, in: *Theatr. Chem.*, V, 239.

light ones. Thus the author of the *Perfectum Magisterium*<sup>4</sup> compares the mineral vapours with wandering stars; the mineral vapours must be linked to solid metals, just as the wandering stars to fixed stars. And the chemist Aristotle says that, when a gas has dissolved solid matter and liquid, it must be controlled by connection with the solid matter, from which it was initially prepared. By this union the volatile gas becomes solid matter.

Bonus (Petrus Bonus) draws the attention to the fact that in camphor the light elements, fire and air, predominate; that is why camphor evaporates completely, when it is exposed to the air. In mercury, flower of sulphur, antimony, salt of deer's blood, ammonia and such like the earth rises with the air in the receiver of the still and there the earth cannot be separated from the air (a). In gold, glass, diamond, garnet and such like the elements remain together intact for a very long time and also in a flaming fire the element earth, which is there present, binds the other elements (b). In other combustible matter the separation of the elements is of such a nature that the element earth remains at the bottom as ashes, and water, air and fire (c).

You must not pay attention to this last, unequal composition which is not firmly connected (c), nor to the first composition, which is, it is true, connected slightly more solidly, but is still volatile (a). Concentrate on the middle group, which is solid, firm and hard; for in this manner the wingless bird will hold back the winged one and the solid matter will bind the volatile matter and that is what ought to happen.

#### SOURCE OF THE MOTTO

Senior, *Tabula Chimica*, in: *Theatr. Chem.*, V, 191-239; Senior works out the comparison of the birds and of the contrast between winged and wingless and it certainly is the source of Maier's emblem, although the literal text of the motto does not occur there (*o.c.*, 206).

The last line of Maier's epigram, with the advice of connecting the two birds, head to tail, has been taken from Senior, *o.c.*, 239 and from the picture at the beginning of Senior's work, in which

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<sup>4</sup> See bibl. sub Aristotle (Pseudo).

an old man holds an opened diptychon in his hands, in which the winged and the wingless bird occur—connected head to tail, so that they form a ring (*fig. 58*).

For this emblem Maier used, beside Senior, Lambsprinck's *De Lapide Philosophico Libellus*, Frankfurt 1625, embl. VII, with the motto:

“Duæ aves in sylva nominantur;  
Cum tamen saltem una intelligatur”,  
“Two birds are called by name in the wood  
Although only one should be understood by it”.

About this Lambsprinck says in his epigram inter alia:

“Nidus in sylva reperitur  
In quo Hermes suos pullos habet,  
Unus semper conatur volatum,  
Alter in nidum manere gaudet,  
Et alter alterum non dimittit.  
Infimus, supremum sic tenet  
Ut simul in nido manere cogantur”.

“A nest is found in the wood, in which Hermes keeps his young birds,  
The one tries repeatedly to fly, the other prefers to stay in the nest,  
and they do not let each other go.  
The one underneath holds the one on top in such a way  
That they are both compelled to remain in the nest”. (*fig. 59*).

#### COMMENTARY

The meaning of the emblem appears from the contents of the discourse, in which Maier gives an exposition of the elements theory. The flying and the falling bird symbolize the opposite forces which are active in the material and the spiritual spheres. In the first paragraph Maier opposes the opinion that the Universe only consists of one element, because, consequently, all motion, change or development would become impossible. This opposition of Maier refers to the philosophy of Parmenides, who denies the reality of motion and change.

In the 2nd and 3rd paragraph of the discourse Maier explains

the theory about the four elements and the contrast between the properties of the elements. He then gives an example of heavy and light elements from daily life, namely the story about the heron and the wooden pigeon, and returns afterwards to the philosophical work with quotations from alchemical literature. In the last two paragraphs Maier elucidates the composition of the elements by means of certain matters; the birds from the motto should be as solidly linked together as the four elements are connected in gold or diamond; that is the alchemist's task.

Some other emblems from the *Atalanta Fugiens*, in which the connection of the four elements is expressed, are embl. xv and embl. xix. In embl. xv the alchemical process is represented by the potter's work, who creates a form out of earth and water, the form being freed from superfluous fluid in the air and hardened to stone in the fire, just as is the Philosophers' Stone. In embl. xix the four elements are represented by four brothers, who all die, when one of them dies, because each emblem has one property in common with another emblem, so that a circular movement is created by the destruction of one element, and consequently all elements are destroyed and revert to the basic principle from which they originated.

Maier again depicts the contrast winged-wingless in emblem xvi, in the shape of a winged and a wingless lion. As appears from Senior, *o.c.* (206), winged denotes female and wingless male. The first corresponds to the mercury and to the Moon side of the Universe; the second corresponds to sulphur and to the Sun side of the Universe.

But the two contrasts are two aspects of Unity. This appears from the motto of emblem vii of Lambsprinck:

"Two birds are mentioned by name in the wood,  
Although only one is meant by it".

The text under the engraving advises to sublimate Mercury (the liquid) so often that it becomes solid and cannot evaporate any more through the power of the fire. Lambsprinck's epigram corresponds to that of Maier. Lambsprinck also dedicates his following emblem (embl. viii of Lambspr.) to the two birds, which are involved in a fierce struggle in the air but near the ground (*fig. 60*). (Maier apparently had this in mind in his example about the struggle of a falcon and a heron in the discourse). The motto of it reads:

"There are two noble birds of high value,  
Body and Soul, and the one devours the other".

The text elucidates the necessity of dissolution, as a result of which the body becomes white and the spirit red, "The struggle of things is to strive after perfection and is prepared; in the same way the Philosophers' Stone". From the epigram it can be seen that Lambsprinck sees the Phoenix in the two birds:

"In India there is a very beautiful wood,  
Where two birds are linked together:  
One of them is of the whitest white, the other is red.  
They peck each other to death,  
The one lacerates and devours the other;  
Still each of them is changed into a white dove.  
From the new white dove a Phoenix is born,  
Which has thrown off blackness, dregs and death,  
And in this way a new life has begun.  
This strength was given to himself by God,  
That he might live eternally and never die,  
It acquired richness and life for us;  
So that we reveal great miracles in it,  
As the true philosophers clearly describe to us".

In Antiquity the phoenix was believed to be a bird, which lives five hundred years and after that renewed its youth in the fire. In Early-Christian art the Phoenix is the symbol of immortality and resurrection. In the Middle Ages the Phoenix becomes the symbol of the death and resurrection of Christ. Already in Early-Christian art the white dove is the symbol of the human soul. Only occasionally the dove is the symbol of Christ himself. As such it occurs in a verse of Aurelius Prudentius Clemens (348-410):

"Be Thou, o Christ, to me the powerful dove, which makes the bloodthirsty bird of prey (the devil) fall back".<sup>5</sup>

It is clear that in Lambsprinck's emblems there are points of contact with Early-Christian and mediæval allegories, beside influence from Senior's *Tabula Chimica*, which is a pseudonym for an Arabic alchemist from the 10th century, Mohammed ibn Umail, whose writings became known under the name *Tabula Chimica* in the

<sup>5</sup> From J. J. M. Timmers, *Symboliek en Iconographie der Christelijke Kunst*, Roermond, 1947, 147; as place he mentions *Cathemerinon*, III, 166: "Tu mihi, Christe, columba potens, Sanguine pasta cui cedit avis".

Middle Ages. The earliest known Latin manuscripts of it date from the 13th century.

It turns out again that an emblem of Maier represents more than one aspect; and these aspects all come down to the fact that the emblem has an exoteric meaning and refers to the transmutation of matter, and on the other hand, has an esoteric meaning, also influenced by allegories from the Middle Ages regarding the ascent of souls to God and the mystery of Christ's death and resurrection. For instance, an analogy to the resurrection of the Phoenix from the fire is seen in Maier's embl. xxiv, in the person of the King, who rises from the fire.

The contrasts Maier represents by the birds of his embl. vii occur more than once in the *Atalanta Fugiens*, not only in the shape of winged and wingless, as embl. xvi, but also in the form of high and low, or as the peak and foot of a mountain, e.g.: embl. xii, the stone which Saturn spits out is placed on the top of the Helicon; embl. xxvii, epigram, man should try to reach the top of the Parnassus; embl. xliii, a black crow, at the foot of the mountain, an eagle on the top; the eagle was also a symbol of Christ; the eagle of embl. xliii calls itself black and red and in alchemy this means the beginning and the end, or so much as  $\alpha$  and  $\omega$ .

Further Maier represents the contrasts by the opposition East-West, as in the emblems xlvi and xlvii, with the respective mottoes: "Two eagles meet, the one from the East, the other from the West", and: "The wolf, coming from the East, and the Dog, coming from the West, have bitten each other".

The last emblem, that of the wolf and the dog, also occurs in Lambsprinck (Lambspr. embl. v) (*fig. 81*), and in *Symbola Aureae Mensae*<sup>6</sup>. Maier says about the emblem of the two eagles from East and West, that the meaning of it is the same as of the birds from the emblems of Lambsprinck.<sup>7</sup>

<sup>6</sup> M. Maier, *Symbola Aureae Mensae*, 272; Maier praised Lambsprinck's emblems.

<sup>7</sup> The emblems from Lambsprinck, mentioned with this emblem vii of the *Atalanta Fugiens*, are *De Lapide Philosophico Libellus*, Frankfurt 1625 embl. v, p. 15; embl. vii, p. 19; embl. viii, p. 21.

*EMBLEM VIII*

(fig. 8)

## MOTTO

Take the egg and pierce it with a fiery sword.

## EPIGRAM

There is a bird in the world, more sublime than all,  
 Let it be your only care to find its egg.  
 The albumen softly surrounds the golden yolk,  
 Attack it cautiously with a fiery sword, (as is the custom);  
 Let Mars assist Vulcan; the bird arising from it  
 Will be a conqueror of iron and fire.

## SUMMARY OF THE DISCOURSE

Among the countless number of species of birds there seems to be a species in an island of the Ocean which can take an elephant up into the air. However, it is not the intention to enumerate these things. The Egyptians destroy crocodiles' eggs each year with a sword.

The philosophers pierce their egg with fire in order to bring it to life and to let it grow and not to destroy it; no more than the coming to life of a human being out of an egg is a process of destruction, although by this the egg shape is destroyed. It is replaced, however, by a nobler form, a two-footed winged animal. In the egg the body grows out of the yolk, the albumen provides food and the warmth from the outside is the prime motivator, which, with the circulation of the elements and the resulting transmutation of the one element into the other, creates a new form, under the guidance of Nature. For water passes into air and air into fire and fire into earth, which, when they are all united, discard their specific form originating from the stars, and become one individual, an individual of the bird species from which the egg comes.

The egg, however, should be smashed by a fiery sword, which Vulcan uses in his function of a midwife, assisting the young one in being born, just as he helped Athena in her birth from the head of Zeus (embl. xxiii). This is what Basil Valentine declares, when he says that Mercury is locked up in goal by Vulcan at the order of



Mars, and is only allowed to leave when he is quite crushed and dead (a personification of the putrefactio, just as, for instance, in the Merlini allegory, which is the root of embl. XLVIII).

In reality this death is the gate to a new life, just as the destruction or the death of the egg, gives life to a new bird. Just so human life, by his birth, passes from the vegetable life in the womb into a more perfect light; and when we are bereaved of earthly life, we pass into the completely perfect eternal life.

Therefore, in several places, Lullius also calls the fiery sword, the sharp lance. For the fire pierces the bodies as a lance or like a sharp sword and makes them porous, so that the water may penetrate into them and may dissolve the bodies, turning hardness into softness, to make them malleable.

In the stomach of a cormorant, one of the most voracious birds, live slippery worms, which exercise the same function as the fire; with their bodies, which serve as sharp needles, they decompose the animals the cormorant swallows. For, just as heat stings, stinging has the function of heat. Therefore it is right to speak of a fiery sword, with which the philosophical egg should be pierced.

Nevertheless the philosophers prefer that by moderate warmth, the warmth is meant by which an egg is hatched, as Morsoleus states in the *Turba*: "The first moisture should first be expelled, o wise men, by burning it in a gentle fire, as, for instance, we see in the hatching of a young bird. When the fire is intensified, let the retort be well closed, lest the body of the ore and its volatile spirit should escape".<sup>1</sup>

But of what bird is the egg? To this Moscus answers, also in the *Turba*: "And I say to you that there exist positively no instruments except those originating from our white, starry, glittering matter and from the white stone, and out of this white matter the instruments suitable for the egg arise; but still they have not said it is an egg or of what bird it is the egg".<sup>2</sup>

#### SOURCE OF THE MOTTO

*Opus Mulierum, et Ludus Puerorum*, in: *Art. Aurif.*, II, 192: "Accipe ovum, id est, vas, et igneas, percute gladio...".

<sup>1</sup> Morsoleus in *Turba Philosophorum*, in: *Art. Aurif.*, I, 47.

<sup>2</sup> Moscus, in *Turba Philosophorum*, in: *Art. Aurif.*, I, 59-60.

"Take the egg, that is the retort (the vessel), heat it, pierce it with a sword.....".

The author of *Opus Mulierum* etc. says to cite Morienus. The comparison of the alchemical process with the development in an egg already occurs in the *Turba Philosophorum* (*Art. Aurif.*, I, 74-75). This is also the source of emblem VIII, although the text of the motto is not taken from it. It regards the origin and nature of the Universe, treated in the first part of the *Turba*. As fifth speaker in the *Turba Philosophorum*, Pandolphis puts forward the comparison of the egg, in order to bear out his argument that air has a double function in the Universe; air separates the earth from the waters below the earth and at the same time air forms a barrier between earth and fire (Heaven) so that the earth is not destroyed: "To illustrate this let me give the example about the egg in which the four elements are joined; its hard shell is the earth, the albumen is water, the thin membrane on the inside of the eggshell separates earth and water, because, as I said, it is air which separates water and earth; the red of the egg (the yolk) is fire, and the membrane around the yolk is air, which forms a separation between fire and water; yet the inner and the outer membrane are the same: the air, which separates the cold earth from the water, is of a coarser substance than the higher air. The higher air is finer and thinner by nature than the lower air, because the higher air more closely approaches the fire. So in an egg four elements are united: earth, water, air and fire, and the solar point in the middle, the red, is the bird. Just so all philosophers have described the egg in the most eminent of all arts and have taken it as an example for their work".<sup>3</sup>

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<sup>3</sup> Pandolphis, sententia 5, *Turba Philosophorum*, in: *Art. Aurif.*, I, 75. "Huius rei proponam exemplum, Ovum, in quo quatuor coniuncta sunt: eius cortex apparens est terra, et albumen aqua, pellicula vero tenuissima cortici iuncta, est separans terram ab aqua, ut dixi, quod sit ær separans terram ab aqua, rubeum vero ovi est ignis, et pellicula rubeum continens est ær, aquam separans ab igne, et tamen utraque pellicula unum sunt et idem: ær tamen frigidam separans terram et aquam ab invicem spissior est ære altiore. Et ær altior est subtilior et rarior natura ære inferiore, quia igni propinquior. In ovo itaque sunt quatuor, terra, aqua, ær, et ignis, et punctus solis in medio, rubeum scilicet quod est pullus. Ideoque omnes philosophi, in hac excellentissima arte, ovum descripserunt, ipsumque exemplum suo operi posuerunt".

## COMMENTARY

In this emblem Maier compares the transmutation process of the metals with the development in an egg. From the comparison with the worms in the stomach of the cormorant, it appears that he also associates the transmutation process with the transmutation processes in the animal and naturally also in the human body.

The comparison with an egg is also dealt with in the *Turba Philosophorum* in the introductory discussions of the philosophers about the origin and nature of the Universe. So in the comparison of the egg Maier also alludes to the process of the Cosmos coming into existence and developing; for the first ten speakers in the *Turba* render the dissertations of the Pre-Socratics in a degenerated form (see bibliography under *Turba Philosophorum*).

The comparison of the alchemical transmutation process with the development of an egg is already found in Greek alchemical works (Berthelot, *Coll. des Anc. Alch. Gr.*, I, trad. 18-22) in its double meaning of World-egg, from which the Universe originates, and in the meaning of retort, in which the alchemical process comes about. The idea of the World-egg originates from Babylonian and Egyptian myths, like Khnum, the Egyptian God with the head of a ram, who, in order to bring about the Creation, made the Universe emerge from his mouth as an egg and formed men as a potter forms his pot on a wheel (see embl. xv for the analogy with potter's work).

The philosophical egg is the retort and also the womb; the womb of the earth, in the interior of which the metals grow and mature, is also the womb of the Virgin Mary, in whom the Filius Macrocosmi, Christ, grows. Maier's parallel between retort (vas)—Philosophers' Stone and Mary (vas)—Christ, appears from Maier's *Symbola Aureae Mensae*, 509, an emblem, representing Mary, nursing the child Christ, with as a motto: "The Stone should be fed, just as a child, with milk of a Virgin" (fig. 68).

The work, from which Maier has taken the text of his motto, *Opus Mulierum et Ludus Puerorum*, also shows the value the alchemists set to the "vas". In the chapter about "the retort or the philosophical

<sup>4</sup> Title of a chapter from *Opus Mulierum et Ludus Puerorum*, in: *Art. Aurif.*, II, 190; this reads: "De vase sive ovo Philosophorum, in quo lapis noster ponendus est, ut igne et arte perficiatur."

egg, in which our stone shall be laid, so that it is perfected by fire and art"<sup>4</sup> the following statements occur:

"Moriens (said): If the old philosophers had not invented the magnitude of the retort in which our stone ought to be laid, they would never have arrived at the perfection of this mastership. Thereupon King Hali says: Become acquainted with the measure or degree of the retort of our work, for it is the root and the starting-point of our mastership. And the retort is also like the womb in animal beings, for in the retort they engender, conceive and at the same time feed what they create. Just so the retort of our mastership should be the image of the latter, otherwise the whole work will go to wrack and ruin".<sup>5</sup>

The alchemists have to make their retort according to the example of nature, so that heavenly powers may act upon their work:

"Albertus Magnus says the following about the producing of our stone: one place is the starting-point for this, and that place brings about the development of that which is put into it by the properties of heaven, which, through the radiations of the stars, penetrate that which is made to develop. And what the original, heavenly forces accomplish in natural places, destined for procreation, they also accomplish in artificially made retorts; at least if those artificial ones are well formed, in the way the natural ones are. Plato says about this: Just as through the motion of the firmament, a revolution of the elements originates, which causes finer bodies to rise, and the heavy ones to stay down, the same happens in the work of competent alchemists. Therefore it is necessary to secure the retort well, because in it the whole firmament follows its circular course. For that which is looked for in our work, proceeds from the elements".<sup>6</sup>

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<sup>5</sup> *Opus Mulierum etc.*, in: *Art. Aurif.*, II, 190: "Moriens si antiqui sapientes quantitatem vasis non invenissent, in quo lapis noster poneretur, nunquam ad huius magisterii perfectionem pervenissent. Hinc dicit rex Hali: Cognosce modum sive gradum vasis nostri operis, quod vas est radix, et principium nostri magisterii. Et idem vas est tamquam matrix in animalibus quia in eo generant et concipiunt generationem pariter et nutriuntur. Ideo nisi vas nostri magisterii idoneum sit, totum opus destruitur".

<sup>6</sup> *Opus Mulierum etc.*, in: *Art. Aurif.*, II, 192: "Albertus Magnus de Generatione nostri lapidis sic dicit. Locus est principium generationis, et locus generat locatum per proprietates cæli, quæ proprietates influuntur ei per radices stellarum. Et quod ibi virtutes elementales et cælestes faciunt in vasis naturalibus, hoc idem faciunt in vasis artificialibus. Si tamen artificialia bene formantur ad modum naturalium. Hic dicit Plato, Sicut per motum firmamenti fit revolutio elementorum, per quam revolutionem corpora

Emblem VIII also, shows how strongly the alchemists felt a connection between the forces active in their work and those dominating the Universe.

### EMBLEM IX

(fig. 9)

#### MOTTO

Lock the tree with the old man in a bedewed house,  
and, by eating of the tree's fruit, the old man becomes young.

#### EPIGRAM

In the garden of Wisdom stands a tree, which produces gold apples,  
You should take this tree, with our old man;  
Let them be locked up in a glass house, wet with dew,  
And let them stay there together for many days:  
Then, o wonder, he will eat his fill from the tree's fruit,  
so that he, who was formerly an old man, becomes young again.

#### SUMMARY OF THE DISCOURSE

Everything that increases in length, breath and depth, that is everything that comes into being, is fed and multiplies, and also decreases again and dies. We see this in plants, animals and men. Human life can be compared to an oil-lamp, when the oil in the lamp is consumed, the light goes out. Just like a candle the human body consists of a wick, grease and a flame; organs, intestines and limbs form the wick, the fluid of life represents the grease, and the natural, innate warmth represents the flame.

We can observe rejuvenation in some animals, like the snake, which renews its skin, and the deer, which throws off its antlers, but man can only be rejuvenated by death, after which follows eternal life. In his "quinta essentia" Lullius states that he has found a means of outward rejuvenation, making wrinkles and grey hairs disappear and so does Villanova in his "aurum potabile". Physicians

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subtilia nituntur superius ascendere, et id quod ponderosum est manet inferius: sic quoque est in opere peritorum alchimicorum. Necesse ergo bene munire vas, per quod totum firmamentum in circuitu suo revoluitur. Nam id quod quæritur in nostro opere, est illud quod provenit ex elementis".

ascribe marvellous results to the fruits of the Myrobalanus tree; they are said to be good for combatting grey hairs, for purifying the blood and for prolonging life. Marsilius Ficinus advises, letting scientists be nursed daily by a beautiful young woman, in order to prolong their life. Paracelsus writes that it is possible to rejuvenate oneself by imagining oneself rejuvenated; the truth of it, however, exists exclusively in the imagination of that author.

But all these things are not connected with the tree which rejuvenates the old man. The tree bears sweet, ripe fruits, which can easily be absorbed by the blood. They are easy to digest and do not leave anything superfluous or impure in the body. The old man has too much white fluid, because of which his hair and his complexion are white. By eating the fruit of the tree he becomes young and acquires a red complexion. That is why the philosophers say that their stone is first an old man (white) and afterwards a young man (red).<sup>1</sup>

The old man has to be locked up together with the tree in a closed house, and not in the open air; the house should be wet with dew and not dry. No wonder the tree will grow there, for it has its roots in the earth, it feeds itself abundantly with air and vapour (water); every element is present, for the fire is represented by the fire which is in the tree. So the tree has everything necessary for its growth.

The moist vapour, which is beneficial to the tree, also benefits the old man, in consequence of which he rejuvenates himself more easily, by eating the fruit of the tree, so that his shrivelled, wrinkled skin becomes smooth again through the moist warmth. It is the reason why physicians rightly and successfully prescribe tepid baths for people who are shrivelled and emaciated by old age.

If you consider it well, the tree is the daughter of the old man, who, like Daphne, is changed into a tree, so that the old man expects to be rejuvenated by her, and not without reason, because she has sprung from him.

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<sup>1</sup> "Lapis est senex propter albedinem, iuvenis propter rubedinem", a quotation by David Lagneus, *Harmonia Chémica*, in: *Theatr. Chem.*, IV, 726. Lagneus says he is quoting Hermes and refers to the *Margarita Pretiosa Novella*. In the latter alchemical treatise this motif is found in more detail (*Theatr. Chem.*, V, 638).

## SOURCE OF THE MOTTO

Pronouncement of Balgus in the *Turba Philosophorum*, in: *Art. Aurif.*, I, 57:

"Accipe illam arborem albam, aedifica ei domum rotundam, tenebrosam, et rore circumdatam, et impone ei magnae aetatis hominem centum annorum, et claude domum, ne ventus aut pulvis ad eos perveniat: Deinde dimitte eos in sua domo octuaginta diebus: dico vobis in veritate, quod senex ille non cessat comedere de fructu arboris illius, donec iuvenis fiat. O quam miranda natura, quae illius senis animam in corpus iuvenile transformavit, et pater filius factus est, benedictus sit Deus, creator optimus".

"Take that white tree surrounded by dew, build around it a round, dark house, put in it a man stricken in years, a hundred years old, and lock the house, so that no wind or dust may penetrate to them; after that leave them in their house for eighty days: I say to you in truth, that that old man will not stop eating the fruit of that tree, till he becomes a youth. O, how wonderful is nature, which transformed the soul of an old man into the body of a youth, and the father has been made into a son. Blessed be God, the supreme creator".

## COMMENTARY

In the quotation from the *Turba* not only the motto, but also the text of the epigram and the last line of the discourse is included: "The father has been made into a son", is analogous to "the tree is the daughter of the old man". In chemical respect this allegory represents the union of sulphur and mercury; the old man represents the sulphur and the tree the mercury.<sup>2</sup> The glass house, which must be well closed, is a retort or vessel, in which the connection takes place. The glass house should be full of dew (epigram, 3rd line) that is to say full of mercury vapours, which precipitate like fruit on the tree.

That in this allegory from the *Turba* Maier thought of distilling mercury (Mercury) out of mercury ore, appears from the resemblance between the illustration of Maier's emblem and a picture

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<sup>2</sup> J. Ruska, *Turba Philosophorum*, 246.

from Agricola's *De Re Metallica*. The illustration of Maier's emblem (*fig. 9*) follows the text of the allegory and represents a small, round, vaulted building, in which sits an old man, who gathers and eats the fruit of a tree, which is also in the round building. In his illustrated work *De Re Metallica* Agricola gives an idea of the state of affairs in the first half of the 16th century regarding metallurgy and mining. In this work is found a picture of a distilling room, which is used for the distillation of mercury (*fig. 61*). Just as in Maier's emblem, Agricola pictures a round, vaulted space, with a tree in it. On the ground under the tree there are vessels standing on a furnace with rising vapours. As appears from Agricola's explanation, a furnace stands in a round, vaulted distilling room, and on the furnace the mercury ore is heated, causing mercury vapours to rise, which afterwards condense on the foliage of the tree in the distilling room.<sup>3</sup>

The similarity of Agricola's distilling room and the "arbor in rorida domo" of Maier's emblem is such that one may assume that Maier knew the work of Agricola and that the picture of the latter's distilling room was the inspiration of the design of emblem IX. On the other hand Maier has taken the motto and epigram from the *Turba Philosophorum*, one of the oldest known alchemical sources which have been translated from Arabic into Latin which are known in Western Europe.

Agricola (1494-1555) began his study of medicine, physics and chemistry in Leipzig. He started his practice as a physician among miners and because of this he became interested in mining, metallurgy, geology and mineralogy. He does not trouble himself so much about the theories, like the Aristotelian theory of the four elements, or the theory of the three elements sulphur, mercury and salt, the so-called "Tria Prima" of Paracelsus, but he describes tests, arranging and classifying his experiences. In this method is seen the new, rising tendency in the study of science, which is based on observation and the interpretation of it, while the authority of mediæval, Aristotelian, scholastic traditions begins to wane.

From the combination of conservatism (the allegory of the tree in the house is taken from the *Turba*) and of progressiveness, by a scientific approach of the physical and chemical phenomena (fa-

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<sup>3</sup> G. Agricola, *De Re Metallica Libri XII*, Basel 1561, book IX, fig. p. 373.



miliarity with the work of Agricola), Maier's struggle to reach a synthesis on this point is evident.

The tree on which the mercury condenses, however, has a wider meaning. Quicksilver or mercury was considered to be the raw material and substratum for the Philosophers' Stone. In this emblem the mercury is symbolized by the tree. The tree, however, is, like the mercury, the alpha et omega. In the discourse Maier stresses the fact that the tree (paragraph 4) is connected with all the four elements. In the epigram Maier says about the tree: "In the garden of Wisdom stands a tree, which produces gold apples". This motif repeatedly occurs in alchemical writings and in his *Symbola Aureae Mensae*<sup>4</sup> Maier himself depicts it as a garden, in which trees grow, some of which bear fruit in the shape of moons, others in the shape of suns, Saturn (as the first stage of the transmutation process) sprinkles the earth at the foot of the trees with his watering-can (*fig. 62*). In the picture from the *Musaeum Hermeticum*—the allegory signed by M. Merian, about the connection between Macrocosm and Microcosm, discussed under emblem v—, a high mountain is seen on the earth, covered with trees, which bear chemical signs of minerals and metals in their foliage; the signs for the metals correspond to the planet signs and the tree in the middle on the top of the mountain, which bears the sun sign, touches the firmament with its crown (*fig. 54*).

The tree of emblem IX grows in the "gardens of Wisdom", which is pictured by Maier in emblem XXVII, the epigram of which begins as follows: "The rose-garden of Wisdom has an abundance of various flowers"; without a key for unlocking this rose-garden one will try in vain to ascend the Parnassus, according to the epigram. With this, emblem XXVI is connected, the motto of which reads: "The fruit of human wisdom is the Wood of Life". The picture of it shows Lady Sapientia, with a banderole in each of her hands on which stand the words: "Many a long day and health" and "Wealth and honour". The text of the banderoles is from Solomon, *Proverbs* (III, 16), and so is the motto (III, 18): "She (Sapientia) is a tree of life, to them that lay hold upon her and happy is everyone that holdeth her fast". Both emblems, about the rosegarden and the

<sup>4</sup> M. Maier, *Symbola Aureae Mensae*, 555, motto: "Saturnus humectat terram portantem Solis flores et Lunæ".

Wood of Life (embl. xxvii and xxvi) are—with the texts from Solomon—taken from the *Rosarium Philosophorum* and belong together. Regarding the *Rosarium Philosophorum* text, this is taken from the part of the *Aurora Consurgens* not published in print,<sup>5</sup> in which well-known alchemical statements are mixed with texts from Solomon, the Prophets and the Song of Songs, in order to render the transmutation processes of the imperfect into the perfect, which occur in various fields, but which are closely connected; the transmutation of metals, the approach of man to God, by way of Solomonic wisdom, fathoming nature, and Christ's work of redemption, by which man and world are freed from eternal doom.

The Tree of Life is an analogy with the cross, to which humanity owes its salvation (embl. xxvi).

The tree with gold apples in the gardens of wisdom from embl. ix is also the tree that flowers in the closed rose-garden of embl. xxvii. This evokes associations with Mary and Christ; Mary is the closed garden in which the Tree of Life grows.

So it appears that more notions are connected with the tree of emblem ix than with the tree that serves to make mercury vapours condense. It is a cosmic tree, the gold apples of which reach up to the firmament, as appears from the picture of Merian in the *Musaeum Hermeticum* (fig. 54). It stands in the "gardens of Wisdom" (epigram embl. ix), analogous to the "locked rose-garden" (epigram embl. xxvii), a typology for Mary; the tree is the "Tree of Life".

According to the epigram of embl. xxvii the key for entering the rose-garden has to be sought, then one will be able to ascend to the peaks of the Parnassus, in other words to the seat of the Sun-God. (So here several motifs are taken together). Moreover it is the tree that bears gold sun-fruit and silver moonfruit, as in the picture of *Symbola Aureae Mensae*, which are watered by Saturn, the symbol of the first, humble stage of the transmutation process, from which perfection, symbol of the expansion of the Universe, finally arises (fig. 62).

Beside the tree of embl. ix, however, the old man eating his fruit is also a symbol for the Philosophers' Stone, as appeared from note 1: "The Stone is an old man on account of its whiteness, a young man on account of its redness". The explanation of this is that tree and

<sup>5</sup> *Codex Vossianus Chemicus* no. 29 University Library, Leiden.

man are two different stages of the Philosophers' Stone. The one stage always results from the other; that is why Maier speaks about man and tree as father and daughter (discourse embl. ix, last paragraph), in imitation of the *Turba* example, where "and a father is made into a son" is added to the rejuvenation of the old man. The red colour of the rejuvenated man is the sign of the perfect transmutation. Maier also uses this redness in embl. xxxii to indicate the perfect stage of the Stone, for which coral is used as an example; finally coral becomes hard and red, and "therefore it is a suitable image for the Stone" (epigram xxxii). Another example, where the colour of healthy, red blood is the symbol for the perfect Stone, occurs in emblem XLVIII, where the Stone is represented by a sick Chemical King, who is cured by many physicians and medicines, till "both his cheeks were coloured rose-red" (epigram embl. XLVIII). This redness was represented by the alchemists in many forms. Again this motif is associated with Christ and the Philosophers' Stone, namely by the red colour of Christ's blood, which he sacrifices on the cross, sinners are purged from the sins of their ancestors; the faults of the old Adam are wiped out, the old man becomes young, the new Adam. This association becomes evident from the alchemical work *Hydrolithus Sophicus seu Aquarium Sapientum*:<sup>6</sup> "Christus, primogenitus est inter multos fratres", Christ, is the first-born among many brothers, he is the Stone, by which all people are restored to the situation which prevailed before the Fall. The Philosophers' Stone and the Chemical King are so perfect, "ut imperfecta et vilia metalla, tingere et in purum aurum transmutare potens sit: Ita quoque et adhuc multo potius Coelestis ille Rex, fundamentalis, angularisque Lapis Jesus Christus benedicta sua tinctura, hoc est, rosei caloris suo sanguine nos peccatores imperfectosque homines ab innatis nostris Adamacis sordibus et fæcibus solus et unus purificat", "that they can colour imperfect and base metals and transmute them into pure gold: even so and indeed much better, that Heavenly King, Headstone and Cornerstone<sup>7</sup>, Jesus Christ purges us, sinners and imperfect

<sup>6</sup> *Hydrolithus Sophicus seu Aquarium Sapientum*, in: *Musaeum Hermeticum*, 1678, 119-120.

<sup>7</sup> *Acts*, 4-11: "This is the Stone which was rejected by you, builders, but which has become the head of the corner."

men, of our innate impurities and taints, originating from Adam, by his blessed colouring substance, that is by his blood of a rose-red colour”.

In this emblem, the motto of which was taken from the *Turba* and the picture of which is inspired by an illustration of a distilling furnace for mercury of Agricola, Maier has also dealt with analogies between the alchemical process of metal transmutation and the purifying process of humanity by Christ. The mixing together of these themes is characteristic of late-mediaeval alchemical works; its characteristic was derived from them by Maier in the 17th century.

### EMBLEM X

(fig. 10)

#### MOTTO

Give fire to fire, Mercury to Mercury, and it is enough for you.

#### EPIGRAM

The entire Machina Mundi, riveted together, depends on this chain,  
That everything alike rejoices in the like:

In this way Mercury is connected with Mercury and fire with fire,  
May this be given to you as the ultimate object for your art.

Vulcan sets Hermes in motion, but the winged Hermes  
Dissolves you, O Cynthia, but she, your sister, decomposes you,  
o Apollo.

#### SUMMARY OF THE DISCOURSE

Taken literally it is nothing unusual that fire, added to fire, yields a bigger fire, but there are many kinds of fire. Everything alike, added to its equal, shows an increase. Physicians use this knowledge by suppressing diseases by the introduction of opposite ones, just as fire is extinguished by the opposite of fire, namely by water, and is fanned by the addition of fire.

The philosophers, however, are acquainted with many kinds of fire and many sorts of Mercury. The same is applicable to the contrast warmth—cold, in which the like attracts its like, as we may observe in a man, who has burnt his limbs in the fire; he is attracted by the same heat, because by this the burning is drawn out of it.

In the same way frozen limbs, which are nearly dead, are immersed in cold water to put them in order, without adding to it immediate warmth from the outside. The curing warmth or cold, however, which is applied from outside, should be less powerful than that by which the limbs were burnt or frozen in the first place, for otherwise the burning or freezing would become worse. The counteraction of freezing by cold water and of burning by heat is in concordance with nature, because every sudden transformation of anything into its opposite is dangerous, but every gradual transformation can have a satisfactory result.

Thus we say that there is an inner fire, which, imprinted in the philosophical subject, really exists, and another outer fire; the same is true of Mercury. Inner and outer fire correspond to each other in fiery tendency and effect. Consequently outer fire has to be added to inner fire and in the same way mercury has to be added to Mercury.

In cooking and softening hard things both fire and water are necessary, for water dissolves everything hard and penetrates into all its parts, and the fire gives power and motion to the water. An example of this is the softening and cooking of hard salted fish, which finally becomes a soft pulp. Thus the heat of the fire dissolves the coarse parts of fruit or meat, so that they become watery and rise into the air as vapour together with the water. In the same way Mercury and fire are not only water and fire, but also parts of what is ripe and what is coarse, which need to be ripened by cooking, or else the ripe parts, which have to be freed from superfluities by water and fire.

We shall show briefly that two sorts of fire and these two mercuries are essential for philosophical work. Empedocles stated that at the root of everything there are two things, namely combat and friendship. Through combat dissolution results, through friendship construction. This also appears from the relationship between fire and water, for when fire dominates water, the water is driven away and evaporates, and when the water dominates, the fire is extinguished. Nevertheless friendship may arise from the process, for by the heat of the fire a new generation that is, air, comes into existence out of the water, and in the same manner the hardening of the water into stone is brought about. Thus out of the first two elements the

two following ones arise and consequently out of them all things arise.

Water became the matter of the sky and of all material bodies; fire, however, as forma, gave motion and shape to this matter. Thus water, or Mercury, procures the materia; and fire, or sulphur, the forma. In order to put these two factors into operation and to make them interact by dissolving, coagulating, changing, colouring and perfecting, external expedients are used in the work, instruments, as it were, without which no result is possible. Just as a smith cannot work without a sledgehammer and a fire, so the philosopher cannot work without fire and water. Some call this water cloud water, because, like dew in the month of May, it is distilled out of the finest parts.

If one takes an egg, empties it and fills it anew with the dew of the month of May and thereupon exposes it to the warmth of the sun, the dew evaporates and makes the egg rise; in the same way philosophical dew makes the philosophical egg rise and makes it perfect. At the same time that water is the sourest acid, which makes a body into a pure spirit. For just as there exists acid of different quality, the same is true of this water; it makes things dissolve and it coagulates, without being coagulated itself, because it is not of the same substance. This water is the water obtained from the source of the Parnassus, the source, which in contrast with the nature of other sources, rises on the summit of the mountain and which originates from the hoof of the winged horse Pegasus.

But fire is also necessary and this should be tempered by degrees, as it were, restrained. For just as the Sun, proceeding from Aries to Leo, increases warmth for growing things, approaching nearer and nearer, so also in philosophical work fire is needed: for the philosophical Child must be fed by fire, as if it were milk, so that it may grow so much more profusely.

#### SOURCE OF THE MOTTO

*Aurora Consurgens*, in: *Art. Aurif.*, I, p. 230, chapter XIII, "De multiplici argento vivo", about the multiple mercury:

"De primo scribit Turba Philosophorum dicens: Argentum Vivum est ignis, qui corpora comburit. Et iterum, oportet ergo corpus flamma ignis occupare, ut diruatur et debile fiat: hunc enim ignem

oportet extrahere igne connaturali: ut dicit Senior. Ignis noster est aqua: si sciveris dare ignem igni, mercurium mercurio, sufficit tibi”.

“About the first the *Turba Philosophorum* wrote in the words: Argentum Vivum, mercury, is fire, which burns bodies. And once more, therefore it is necessary to bring the body into contact with the flame of the fire, so that the body is destroyed and mutilated: for one ought to draw this fire out of it by means of fire, which is in accordance with nature, as Senior says. Our fire is water: If you have known how to give fire to fire and mercury to mercury, it is enough for you”.

### COMMENTARY

Fire and Mercury present the contrast fire-water, or sulphur-mercury; this emblem is an expression of Geber's Mercury-Sulphur theory. Mercury and Sulphur should be combined into a unity, without Mercury being volatilized by the fire or the fire being extinguished by Mercury. According to Maier's discourse the fire to be added to the fire is the external fire to be added to the hidden fire. Water and fire both have a dissolving effect, by which the coarse substance is refined. Consequently the philosophical fire is equal to water and vice versa.

In the discourse Maier mentions the opposite forces of Sulphur and Mercury in connection with the contrast between the elements which are termed love and hatred by Empedocles. Mercury or the water is the “materia” of heaven and Sulphur or the fire gives it “forma”. Mercury is the “sourest acid”, in which the matter of the Stone dissolves in the first instance, it is also the source in which the matter is then purified and from which it finally rises as the perfect Stone (motif of the *Duenech allegory* and the *Merlini allegory*, embl. xxviii and embl. xlviij respectively).

The *Aurora Consurgens*, from which the motto is taken, says about Mercury: “Mercury is fire, which burns the bodies. And the body should be burnt by fire, so that it decomposes . . . .”. Another stage in which the mercury is active: “By the putrefactio the soul is withdrawn from it, till nothing of it is left, and then you have freed the body from its stains”. About the third stage of the mercury: “You should draw the quintessentia from the mercury, other-

wise your work is in vain. And therefore the mercury is described as threefold".<sup>1</sup>

The first line of the epigram, stating that the entire *Machina Mundi* riveted together depends on this chain, evokes reminiscencies of embl. v, of the woman who nurses with her milk the toad with a gold chain.

In the alchemical treatise *Liber Octo Capitulorum*, ascribed to Albertus Magnus, the meaning of Mercury approaches that of the *fons vitæ*: "The mercury is cold and moist (so it has the properties of water), out of mercury God created all minerals; it penetrates into and purifies all bodies (like baptismal water), it is active like leaven, in consequence of which the mass mixed with it becomes entirely white and red elixir (mediator of perfection), it is the eternal water, the water of life, the source, and he who drinks from it will not die (Christ the source of the living water).<sup>2</sup> In its living form mercury performs certain works; after its death it performs its greatest works. It is the serpent charming itself, fertilizing itself, giving birth in one day, killing all metals with its poison (so analogous to the ouroboros from embl. XIV and to the dragon of embl. L). Mercury evaporates by fire, but wise men make it fireproof, feeding it with its own earth and then it brings about transmutations.<sup>3</sup> Only mercury conquers

<sup>1</sup> *Aurora Consurgens* in: *Art. Aurif.*, I, 230-231.

<sup>2</sup> A parallel between the alchemical process and Christ is found in the emblems XXVI and XXVII, which show a close connection with each other. In the epigram of embl. XXVII the ultimate object is also represented by climbing the top of the Parnassus. The thoughts worked out in the emblems XXVI and XXVII, are also at the root of the passage from the discourse of emblem X: "This water is the water obtained from the source of the Parnassus . . . . ."

<sup>3</sup> Albertus Magnus, *Liber Octo Capitulorum*, in: *Theatr. Chem.*, IV, 842: "Argentum vivum est frigidum et humidum et Deus creavit cum eo omnes mineras. . . Et ipsum est quod intrat quodlibet corpus, penetrat, lavat. . .

Ipsum est fermentum corporibus quibus admiscetur, et tunc erit totum elixir ad rubedinem et albedinem. Ipsum est aqua perennis, aqua vitæ, lac virginis, fons, alumen, de quo bibens non moritur. Cum vivum fuerit habet quædam opera, cum mortuum fuerit alia, habet opera maxima. Ipsum est serpens luxurians in se ipsum, se ipsum impregnans, in die uno parturiens, suo veneno cuncta interficiens metalla. Ab igne fugit, sapientes autem per sua artificia fecerunt ut expectaret ignem, cibantes id cum terra sua, donec expectaret ignem, et tunc facit opera et mutationes. . .



fire and is not conquered by it, but in a friendly way it joyfully finds rest in the fire".<sup>4</sup>

The second line of the epigram "that everything alike rejoices in the like" has a parallel in emblem xx, with the motto: Nature teaches nature, in order to fight fire". The very early source of that motto speaks of nature which "rejoices" in nature, just as the second line of our epigram, where the like "rejoices" in its like. Just as the motto, the third line of the epigram alludes to the union of hidden and external mercury, and of hidden and external fire, by which mercury and fire, the two contrasts, are reconciled. The reconciliation of that contrast is effected by the rotation of the elements, as it is represented in emblem v; the first line of the epigram speaks of the riveted "chain", which occurs in emblem v as symbol of the rotation of the elements, in the shape of a toad adorned with a gold chain.

The last lines of the epigram show the rotation of the elements in the shape of mythological figures and form a parallel to emblem xvii, in which Maier states that there are four kinds of fire. In the discourse of this emblem x he also mentions various kinds of fire and mercury and the rotation of the elements.

In the last part of the discourse Maier puts forward the example of an egg filled with dew, which rises under the influence of the sun-warmth. This example contains elements which are also dealt with in other emblems, namely embl. viii, which depicts the rotation of elements under the motto: "Take the egg and pierce it with a fiery sword", by which the perfect result, namely the philosophical bird, is brought about.

Also dew is mentioned in several emblems as a symbol of cleanliness and purity, e.g. in embl. xxviii, in the allegory about king Duenech and in embl. xlviii, in the allegory about king Merlinus.

The end of the discourse draws a parallel between the philosophical work and the course of the sun through the zodiac; in the same way the philosophical child should be fed with fire, just as embl. xxxv also pictures this motif in the shape of Triptolemus and of Achilles. The philosophical stone must learn to endure the fire, as embl. xx says with the motto: "Nature teaches nature, in order to fight the fire".

<sup>4</sup> *Ditto*: "Ipsum solum est quod ignem superat et ab ea non superatur, sed in eo amicabilem quiescit eo gaudens".

*EMBLEM XI*

(fig. 11)

## MOTTO

Make Latona white and tear up the books.

## EPIGRAM

Everyone knows Latona's twins,  
 Who, according to the legend, were children of Jupiter.  
 Others assert that the twins were a union of the sunlight  
 And the moon, which has black stains on its face.  
 Therefore get yourself ready, to make Latona white.  
 And without delay tear up the unclear books, which harm you.

## SUMMARY OF THE DISCOURSE

The variety of writings of the authors is so great, that searchers after truth would despair of reaching the ultimate aim of the art, as the allegorical stories in themselves are already difficult to understand and are the cause of many errors, still the more so when the same expressions are used for different things, and different expressions for the same things. Anybody who would like to overcome these difficulties must possess a divine inventiveness, by which he sees the truth hidden under so many obscurities, or he must take infinite pains to sift what is truth and what is not.

But the philosophers say that the one without the other is not sufficient, that is to say, a clear intellect is not sufficient without manual labour, nor manual labour without a clear mind; theory is not sufficient without practice and vice versa. For nobody can persist in the right way of Nature, amidst so many wrong ways. According to the philosophers man learns from his errors. At the same time one can distil his whole life, before *Experientia* alone leads him to the truth. Nor can results be expected without *Studio* and *Lectio*.<sup>1</sup> Study removes ignorance and directs the human mind to true knowledge and science. Therefore it is necessary to obtain

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<sup>1</sup> The motto of embl. XLII is dedicated to these four factors, which are of such great interest in the alchemical process. This motto reads: "May Nature, Reason, Exercise and Literature be the guide, staff, spectacles and lamp for him who participates in chemistry".

knowledge of the philosophical art by studying and to sharpen the mind on statements about nature, as that is where the truth is to be found. If the laboratory workers do not neglect study, they will reap the sweet fruits of their exertions. Whoever wants to start work without study, may perhaps see how art is an imitation of nature, but not how art can make nature complete. For it is impossible for them to prepare the secrets of philosophy until the very last. They remain like donkeys which cannot choose between two hay-stacks.

So as not to exhaust anybody too much by this study, which is like an infinite sea of unfathomable depth, so that, in it, he loses his strength, life and wealth, the philosophers have used this emblematic pronouncement that Latona must be made white and that the books should be torn up, so that hearts may not be torn. For many books are written in such an obscure way that they are only intelligible to the authors themselves. The latter have often brought this state of affairs about on purpose to confuse others or to hamper their work.

However that may be, we must investigate what is meant by the making white of Latona. *Clangor Buccinae* writes that Latona is an imperfect body composed of Sol and Luna. The poets and authors of Antiquity say that Latona is the mother of Sol and Luna, or of Apollo and Diana. Others say that she was their nurse. First Diana was born, that is to say the Moon and the white colour appear first, and after that Diana helped as a nurse at the birth of Apollo. Latona, however, is one of the twelve hieroglyphic gods of the Egyptians, who spread these allegories among other nations. However, the real sense and meaning of it was known only to a few Egyptian priests. By others the meaning was associated with all kinds of other things and with various gods and goddesses. Latona has a temple with a gold roof, just as Vulcan, because she was the mother of Apollo and Diana.

But this Latona is dark, with black stains on the face, which can only be washed away by making Latona white. For this purpose some make an ointment, obtained from sublimated mercury, from a mixture of tallow and oil and such things, and rub her skin with it. But this expedient fails, for it does not penetrate into the interior. These colouring-matters are a delusion for the eyes, for they do not

dye the substance through and through.<sup>2</sup> The philosophers want to make the face of Latona thoroughly white and to change the skin. Now you ask in what way this should happen? To this my answer is that Latona should first be sought for and be recognized; if she is brought from a humble place, she should first be brought to a greater dignity and if she is brought from a more worthy place, she should first be immersed in a humbler place, namely in dung.<sup>3</sup> For there she becomes really white and turns into white lead, and from this white lead originates red lead and that is the beginning and the end of the opus.<sup>4</sup>

#### SOURCE OF THE MOTTO

Morienus, *De Transmutatione Metallorum*, in: *Art. Aurif.*, II, 43-44:

"Dealbate Latonem et libros rumpite, ne corda corrumpantur",

"Make Laton white and tear up the books, that your hearts may not be corrupted".

*Rosarium Philosophorum* in: *Art. Aurif.*, II, 305:

"Philosophus ait: dealbate Latonem et libros rumpite, ne corda vestra corrumpantur.

Hermes quoque ait: Azoth et ignis latonem abluunt, et nigredinem ab eo auferunt",

"The philosopher says: Make Laton white and tear up the books

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<sup>2</sup> This reproof applies to the impostors and "puffers"; it also brings to mind the Egyptian conception about making gold, where making the surface gold-coloured was considered as making gold.

<sup>3</sup> Latona should be sought for and be recognized, that is to say the materia prima, the starting-point of the transmutation process should be sought for; if Latona is found in a humble place, she should be brought to greater dignity, which means that the matter must be purified. If she is found in a dignified place, she should be immersed in dung; that is to say if one wants to begin with the alchemical process, one ought to begin with the chaos which is obtained by decomposing matter, the "putrefactio", brought about by a very moderate supply of warmth, namely the decomposition of dung by warmth.

<sup>4</sup> Latona becomes really white, turns into white lead from which red lead originates, and that is the beginning and the end of the opus. The meaning of washing white is explained in embl. III by the example of the washer-woman's work. In embl. XXII Maier treats further the means of achieving white and red lead.

that your hearts be not corrupted. Hermes also says: Azoth and fire wash laton off and take its blackness away”.

*Clangor Buccinae*, in: *Art. Aurif.*, I, 537:

“Dealbate ergo Latonem, id est, aes Mercurio, quia Laton est ex sole et luna compositum corpus imperfectum citrinum . . . .”.

“So make Laton white, i.e. make the ore white with mercury, because Laton is the imperfect, yellow body, composed of gold and silver (sun and moon)”.

“Ergo” refers to the phrase preceding the quotation. That phrase contains the text Maier uses as a motto for his emblem XIII.

Laton is electron, which is yellow in colour. Maier personifies Laton into Latona.

#### COMMENTARY

The advice of washing Latona white implies that the matter from which the Stone should be made ought after the stage of the putrefaction, in which the black colour dominates, to be purified, till it is quite white. Tearing up the books is necessary because, according to Maier in the discourse, many books are written so obscurely that they are only intelligible to the authors. However, Maier advocates an equilibrium between theory and practice; neither theory nor practice alone achieves the desired aim.

The motto used for emblem XI is found in a great many alchemical writings. Maier, however, changed Latonem into Latonam and in the picture of emblem XI, he personified Laton as the goddess Latona, with Apollo and Diana as the Sun-child and the Moon-child at her knee. The phrase from *Clangor Buccinae* calls Laton the “imperfect yellow body composed of gold and silver”, which should be made white. Laton is the same as electron, a natural alloy of gold and silver.<sup>5</sup>

The way in which Laton should be made white, depends on an exact adjustment of the fire, as appears from Morienus’ words in connection with the text of the motto.<sup>6</sup> In the discourse Maier writes that care should be taken not only to obtain a white surface,

<sup>5</sup> M. Berthelot, *Coll. des Anc. Alch. Gr.*, I, 55.

<sup>6</sup> Morienus, *De transmutatione metallorum*, in: *Art. Aurif.*, II, 43-44: “. . . . . Nam et sapiens ait, si recte ignis modum disposueris, Azoch et ignis in hac dispositione, dante Deo, tibi sufficient”.

but a whiteness which penetrates the whole substance. So the making white of metal should take place with water and fire, as Hermes says (see the appropriate quotation in "Source of the motto"). In the picture of emblem XI Latona is washed. After the words of the motto (see above "Source of the motto") the *Rosarium Philosophorum* continues as follows: "Therefore, as the *Turba* says, connect the dry with the moist, i.e. the black earth with its water, and boil till it becomes white. Then you have water and earth by themselves, and the earth made white by the water: that whiteness is called air".<sup>7</sup> The purified, white earth is called air.

The *Rosarium* further continues with an eulogy on this science (alchemy), which has been given as a light in the world, more precious than gold. To confirm this the author compares it with the wisdom of Solomon and quotes *Sapientia* and *Proverbia*<sup>8</sup>:

"For her merchandise (*Sapientia*'s) is better than the merchandise of silver, and the gain thereof than fine gold. She is more precious than rubies; and all the things thou canst desire are not to be compared unto her. Length of days is in her right hand, in her left hand are wealth and honour.<sup>9</sup> Her ways are ways of pleasantness, and all her paths are peace. She is a tree of life to them that lay hold upon her,<sup>10</sup> and happy is everyone that holdeth her fast".

From this it appears that by the making white of Latona, who has black spots in her face, more is meant than purifying a metal alloy. The same is true of the *Rosarium* quotation (note 7) about the black earth which should be boiled white with water into white air. By this the purifying process of the soul is meant, which rises from the dark matter to the white light of God. Maier himself says that colours differ from one another in proportion as they contain a larger or smaller quantity of light and that black contains a minimum of light and white a maximum of light; that, speaking about

<sup>7</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 305-306: "Tungite, ergo ut dicitur in *Turba*, siccum humido (depicted in *Atalanta Fugiens* embl. xv, with the motto: opus figuli consistens in sicco et humido, te doceat) id est, terram nigram cum aqua sua, et coquite donec dealbetur. Sic habes aquam et terram per se, et terram cum aqua dealbatam; illa albedo dicitur ær."

<sup>8</sup> *Ditto*: quotes *Old Test.*, *Sapientia* VIII, 7 and *Proverbia* III, 14-18.

<sup>9</sup> *Proverbia* III, 16 is the text that also occurs in the two banderoles Lady *Sapientia* keeps in her hand in the picture of emblem xxvi.

<sup>10</sup> *Proverbia* III, 18, is the text of the motto of emblem xxvi.

the elements, thinner bodies possess more light than solid bodies and that, considered in that way, fire is not red, but white; that the earth is black and that the hierarchy of black to white runs parallel with the transmutation of earth into water, into air, into fire. It should be borne in mind that fire is the substance of God and earth a very important constituent part of man. Maier makes Solomon say these words in a speech with King Hiram and the queen of Sheba,<sup>11</sup> so just as the *Rosarium Philosophorum*, associating the alchemical discussion with the *Sapientia Dei*.

Emblem XI is, at the same time, an allusion to the purification of sins by baptism. This appears from the text of *Clangor Buccinae*, mentioned in the sources of the motto of this emblem. Here, in connection with the text of the motto for emblem XI, is found the phrase that Maier uses as a motto for his emblem XIII: "The ore of the philosophers is dropsial and wants to be washed seven times in the river, just as Naaman, the leper, washed in the Jordan" (see embl. XIII). The curing of Naaman from leprosy by his bathing in the Jordan is a prefiguration of baptism and the purification of sins. So at the same time this meaning of emblem XIII refers to the meaning of emblem XI.

Without doubt the representation of emblem XI was inspired by the picture in the manuscript of the *Aurora Consurgens*,<sup>12</sup> in which the washing of Laton with Azoch and fire takes place (*fig. 63*). In this picture, just as in that of Maier, Laton is personified, although the text continues to use the word Laton, whilst as well as the pic-

<sup>11</sup> M. Maier, *Septimana Philosophica*, 16-17: "Colores autem differunt secundum maiorem vel minorem abundantiam lucis. Hinc extremi colores sunt, niger, qui minimum, et albus qui plurimum lucis obtinet: Reliqui sunt intermedii: Corpora autem rariora plus lucis, et densiora minus habere animadvertuntur, de elementis loquendo. Hinc ignis flamma per se considerata, non est rubea, sed alba; cum vero carbo ignitus consideratur, rubeus videtur, quia color est mixtus in igne, et terra, idque ideo, quia rarius elementum est ignis, ideoque plus lucens, quam reliqua. Igne in raritate et albo colore succedit ær, huic aqua. Terra per se considerata opaca est, et lucis expers, ideoque nigra".

<sup>12</sup> *Aurora Consurgens*, Codex Vossianus Chemicus, no. 29, Leiden University Library, *fig. folio 43 sq.* This specimen of the *Aurora Consurgens* dates from the beginning of the sixteenth century. See C. G. Jung, *Mysterium Coniunctionis*, Zurich 1957, vol. III: (Aurora Consurgens, Ein dem Thomas von Aquin zugeschriebenes Dokument der alchemistischen Gegensatzproblematik. Herausgegeben und kommentiert von M. L. von Franz).

ture, Maier also personifies the word Laton. The resemblance between the picture of the *Aurora Consurgens* and of the *Atalanta Fugiens* in the way of which the standing figure washes or sprinkles the sitting figure with water, touching the forehead of the sitting figure with the hand, the posture of sitting, standing, and that of the hand, is too great to be accidental. In the *Aurora Consurgens*—ascribed to St. Thomas Aquinas—alchemy is drawn in the direction of Christian mysticism, and the secret of the Trinity and the Hermetic wisdom are interworked into one whole.

### EMBLEM XII

(fig. 12)

#### MOTTO

The Stone that Saturn vomited up after having devoured it in place of his son Jupiter, has been placed on the Helicon as a souvenir for the mortals.

#### EPIGRAM

You want to know the reason why so many poets sing of the Helicon,  
And say that everybody must try to reach the top of it?  
At its summit a Stone has been placed as a souvenir,  
The Stone that was devoured and spit out by Jupiter's father in his  
stead.

If you take these words at their face value, you are out of your  
senses,

For this Stone of Saturn is Chemical.

#### SUMMARY OF THE DISCOURSE

The allegory about Saturn is explained in various ways. According to the astronomers Saturn is the last of the planets. In chemical respect he is the humblest of the metals, lead. The poets consider him as being the father of Jupiter, the son of heaven. In mythology he symbolizes time. It is not explained, however, why Saturn eats his children, but devours a stone instead of Jupiter and spits it out again, and why he is called the inventor of truth, why he wields scythe and serpent as attributes, why he is black and conceited and lame. It is thought to be explained as follows: "Time reveals



the truth and produces it from darkness, just as the serpent, which creeps out of darkness. He carries a scythe because, just as Time, he mows everything he produces”.

The devouring and spitting out of stones, however, remain unexplained. The masters of chemistry have the following explanation about Saturn: “Saturn is the first to be present and is proof of the beginning of the truth having been found, for nothing comes into being without blackness. That is why one reads in the *Turba*, you should rejoice when you see your matter getting black, for that is the beginning of the work, and it is the key without which there is nothing. Thus the *Rosarium* mentions a quotation from Arnoldus, in which he says that you should take care to obtain the black colour, so that you may be sure of having reached the “putrefactio” and are on the right path. Further that this blackness is called Earth, which becomes black by being gently and repeatedly cooked. That is why Saturn means earth, why Jupiter means air, why Mercury means water, and why the Sun means fire.

So the blackness is Saturn, he is the touchstone of truth, instead of Jupiter he devoured a stone. The blackness is a dark haze, which covers the stone in the beginning, so that it cannot be seen. Hence Morienus says that each body which lacks a soul is obscure and hidden. And Hermes says that one has to smash one’s brains with the most caustic acid or with a child’s urine till the brain is darkened. When this has happened he is in the state of putrefaction, and the dark hazes that were above him and in his body, before he died, return. This stone is vomited out again by Saturn, when it becomes white, and then it is placed on the top of the Helicon as a souvenir, as Hesiod wrote. For below the blackness the true whiteness is hidden and the latter is taken out, i.e. taken out of the small belly of Saturn. That is why Morienus says: “Purify the lead (stannum = a mixture of silver and lead) by a special washing, take the blackness and the darkness from it and white, light purity will come out”. And in the *Turba* it is said: “connect the dry with the moist, i.e. the black earth with its water, and cook it till it becomes white”.<sup>1</sup> This is explained in a striking way by Arnoldus in *Novum Lumen*,

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<sup>1</sup> The *Turba* quoted in the *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 305-306.

chapter IV,<sup>2</sup> where he says: "The moistness that cured the blackness, shows itself in a dried condition, when the white colour begins to appear". And a little further on: "And my master said to me that that brown colour emerged because the whiteness was taken out of the womb of the blackness, as is said in the *Turba*. For when you see blackness, then known that the whiteness is hidden in the womb of this blackness, which is the first to appear".<sup>3</sup>

The blackness of Saturn is the same blackness as that of lead. On that account Agadimon<sup>4</sup> says in the *Turba*: "Cook the ore till the blackness, which is called the little penny, gives way, and mix the ingredients of art well, you then will immediately find the blackness which is the lead of the Wise men, about whom they have written much in their books". This points to a statement of Emiganus<sup>5</sup> that "the lustre of Saturn, when he rises into the air, appears only in a darkened state". And it also points to a statement of Plato in the *Rosarium* (5): "The first act of government of Saturn is: destroying and bringing to light". From all this it appears that the philosophers mean quite another thing by Saturn from what the common people mean.

The Saturn of the philosophers produces Jupiter, that is to say he produces the hazy whiteness; Jupiter begets two children with Latona, they are Diana, perfect whiteness, and Apollo, that is perfect redness. And this is the gradual transmutation of all perfect colours. It is said that this stone, which was spit out by Saturn, was placed on the Helicon as a souvenir for mortals, and that communication contains the whole truth.

#### SOURCE OF THE MOTTO

Hesiod, *Theogony*, I,497:

"Πρῶτον δ' ἐξήμεσσε λίθον, πύματον καταπίνων τὸν μὲν Ζεὺς στήριξε, κατὰ χθονὸς εὐρυοδείης Πυθοῖ ἐν ἡγαθέῃ γυάλοις ὑπὸ Παρνησοῖο σῆμ' ἔμεν ἐξοπίσω θαῦμα θνητοῖσι βροτοῖσι."

"First, however, he spit out the stone which he had devoured last.

<sup>2</sup> Arn. de Villanova, *Novum Lumen*, chapter IV, in: *Art. Aurif.*, II, 503-505.

<sup>3</sup> *Art. Aurif.*, II, 505.

<sup>4</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 62.

<sup>5</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 64.

But Zeus gave him a fixed place in the wide land, in the divine Pytho, below the slopes of the Parnassus, as a souvenir for posterity, a wonder for mortal men".

### COMMENTARY

In the discourse Maier cites a number of alchemical statements in order to elucidate the meaning of this emblem. In the beginning of the discourse he mentions that in non-alchemical conceptions Saturn is considered as a symbol of Time, which devours its own products.

Further Maier is supported by the *Turba Philosophorum* and by Arnoldus of Villanova in his elucidation of the classification in the alchemical opus. To obtain the starting-point the matter must be brought to a state of 'putrefactio', characterized by a black colour; this initial stage of the Philosophers' Stone is identified with Saturn, as appears from a statement of Arnoldus of Villanova; "Quando lapis est in putrefactione, tunc vocaverunt ipsum Philosophi antiqui Saturnum".<sup>6</sup> For this purpose Arnoldus of Villanova relies on the "philosophers of antiquity" and means by them the alchemists from Hellenistic times.

In the third paragraph of the discourse Maier pursues the subject of this putrefactio, which is identical with death and which should be obtained by "the most caustic acid", i.e. the first action of mercury, which results in decomposition. By this action the brain is darkened, in other words the light is darkened, when this datum is associated with the human soul.

But Saturn spits out the stone again, when it has become white; the human soul rises again, when it is purified of sins and is able to receive the light of God; or, in the field of metals: out of black lead proceeds the white lead, or the silver. After that the completion of the opus is not so difficult any more, as it is only a question of cooking, as a result of which the red, the colour of the perfection of the Stone, appears. Thus Maier pictures this last stage of the work in embl. XXII under the motto: "When you have obtained the white lead, then do women's work, that is to say, cook".

In the last paragraph Maier personifies the process in the following

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<sup>6</sup> Arn. de Villanova, *Speculum Alchymiae*, in: *Theatr. Chem.*, IV, 519.

way: Saturn (black) produces Jupiter (white, wrapped in black hazes); Jupiter begets with Latona (electron, a mixture of gold and silver, see embl. XI), two children, namely Diana (white) and Apollo (red), the Philosophers' Stone in its radiating sunshape, which is like Apollo.

As regards this mythological frame of the alchemical process Maier has a point of contact in Arnoldus of Villanova, who refers to the classical philosophers (see note 6).

Maier found the source of the motto in Hesiod, as he states of the discourse. Preceding the lines Maier used for his motto, Hesiod narrates how Jupiter was kept hidden in Crete after his birth, in the hiding-places of the earth, to which he was taken by the black night (Hesiod, *Theogony*, 1,477 sqq). This passage gave Maier connecting-points for drawing a parallel with the alchemical opus. Just as the powerful Jupiter was hidden, in his weakly beginning stages of life, in the darkness of the earth, gold is hidden in lead in the alchemical opus, or the divine spark in the human soul, as in principle the coarsest and darkest element keeps the most refined and clearest element hidden in itself.

According to the text of the motto and the epigram the stone spit out by Saturn is placed on the top of the Helicon. In the alchemical opus a mountain-top symbolizes its completion. In the transmutation of metals, putrefaction was deemed to take place on the bottom of the retort and perfection in the upper part of the vessel (emblem XLIII alludes to this).

The Helicon and the Parnassus, mentioned in the motto and the source of the motto, are dedicated to Apollo, the Sun-god—and are at the same time a symbol of the Philosophers' Stone, as appears from Maier's last paragraph of the discourse. The alchemist or the Rosicrucian should aim at reaching the top of the Helicon or of the Parnassus, and to achieve this, putrefaction or Saturn is necessary. Just as in this emblem XII the beginning and the end of the opus are represented by Saturn and Helicon, this beginning and end return in embl. XXVII as "A thing of little value" (putrefactio) and the "Rose-garden of Wisdom" or "the steep top of the Parnassus" respectively. The process of decomposition and resurrection and perfection—independent of whether one considers this with respect to the refinement of metals or to the human soul—is symbolized in embl.

XII by mythological figures and in embl. xxvii by Testamentary imageries.

"On the top of the Helicon Wisdom should be drawn from the source of the Muses", Maier says in his *Arcana Arcanissima*.<sup>7</sup> And when Maier, in his book *Themis Aurea*, speaks about annual secret meetings of the Rosicrucians—the place of which, as he says, he may not speak—he contents himself with speaking of "der Berg Helicon oder Parnassus, mit zweyen Hügeln, darauf dasz Rosz Pegasus einen Brunnen immer fliessendes Wasser, so noch an jeszo fleuszet eröffnet . . .". (Maier also mentions this source-motif in the discourse of embl. x), as this would be clear enough for the initiated and meaningless for the uninitiated.<sup>8</sup>

So it is probable that in the motto of his emblem XII Maier also alludes to the meetings of the Rosicrucians mentioned by him. I leave aside the problem whether such meetings were really held.

Saturn and the Helicon are the two extremes, between which the alchemists seek their way upwards: lead and gold, darkness and light.

### EMBLEM XIII

(fig. 13)

#### MOTTO

The ore of the philosophers is dropsical and wants to be washed seven times in the river, just as Naaman, the leper, washed in the Jordan.

#### EPIGRAM

The sick ore of the Wise is entirely swollen by dropsy,  
 And therefore it yearns for the benefiting waters.  
 Just as Naaman expelled the traces of leprosy in the Jordan,  
 It is washed by its waters three and four times:  
 So throw your body into the sweet water  
 And soon that will bring the strength of health in cases of disease.

<sup>7</sup> M. Maier, *Arcana Arcanissima*, p. 91-92.

<sup>8</sup> M. Maier, *Themis Aurea*, chapter XII.

## SUMMARY OF THE DISCOURSE

That Naaman the Syrian, at the instance of the prophet, went to Judea and washed himself in the river Jordan seven times, is to be ascribed to the belief of Naaman in the prophet; but that by that washing he was freed from leprosy is a miracle of God Almighty. For leprosy, which has its seat in the blood, in the root of the human body, as it were, spreads like a cancer, and cannot be cured by external ablutions and still less by cold Jordan water.

In the same way it is little short of a miracle that the dropsical, philosophic ore is freed from dropsy by the ablution with water and becomes healthy, so that it may even cure other sick persons. No other example of this can be found in Nature; and it is the normal course of affairs that Nature makes the philosophical tincture with the guiding hand of the artist. Thus, for example, a dislocated arm must also be artificially pushed into the socket again. Likewise it is miraculous that, when a human being is about to be born the sacred bone opens through which the young being comes out as if through a gate. Here God effects a miracle beyond Nature, by means of Nature.

Likewise the Stone is perfected and what is in reality natural, may be considered to be supernatural. That is why the philosopher in the *Rosarium* says: "Know then that our Stone is airy and volatile, that in its outward appearance it is cold and moist, but in its hidden appearance warm and dry. That coldness and moistness, which is a visible water-vapour, destroys and devastates itself like all things and flees the fire. Warmth and invisible dryness forms the warm, dry and gold and is the purest oil which penetrates into the body and does not volatilize, because in alchemy warmth and dryness exclusively possesses the force of giving colour. Therefore you should take care that the cold and the watery fluid which is in the visible becomes equal to the warmth and the dryness which is in the invisible, and that in such a way that they come together and become one deeply penetrating, dyeing force (based on Geber's theory about the external and internal properties of sulphur and mercury).

Now this fluid should be driven away by fire and that by several degrees of fire, in a gradual manner. But if what is just said is true, you will ask how water should be driven away by water? (as the motto and the epigram indicate). The answer to this is that some

water, in its effect, is warm and dry, just as the many baths, in which the philosophers bathe the Stone, are hot and dry. From that point of view the statement is understandable: "washing by fire and burning by water". The difference between these two is a difference of words only, the result is the same. For the ore must be purified from redundant water by this water or by this fire, it must be dried up.

We have heard of dropsical people, who were cured by not drinking anything for half a year; or by being buried in hot sand or cattle-manure, or by being locked in a hot furnace and sweating there, or by still other means, for instance desiccating baths, like those of Carlsbad or Wiesbaden. In all these therapies the active factor is warmth, which expels the redundant fluid through the pores and destroys it. For external warmth rouses internal warmth, i.e. the vital spirits, so that they drive away the fluid which is obnoxious to them, as a useless secretion, by which the natural warmth had formerly been suppressed as by an enemy.

One should go to work very carefully with this way of curing, in case in curing one organ another one may be damaged. From the four days' fever we know by experience that coarse slimy fluids, like resin form a tree, collected from all veins and from the blood mass, go down through the hollow or big vein into the lowest part of the back, where they do much damage, because they also block the draining veins which must carry off the mucus from the blood, with the result that mucus accumulates in the blood. As a consequence, the patient may get dropsy, by which the other organs, undamaged till now, are affected. Congealing agents do not help, neither do purgatives, as these also dissolve the solidified substances. Agents for making the patients sweat are indeed obnoxious as the finer parts are excreted by them, whilst the remaining coarser parts continue to exercise their obnoxious effect. For nature only uses the pores as a method of drainage if the way to the bladder is obstructed. Working with purgatives and sudorifics is as dangerous as sailing between Scylla and Charybdis.

When somebody gets dropsy, as a result of a liver complaint or of a milt disease, a cure is extremely difficult; but with the philosophic ore a cure is not impossible as in this case the dropsy is more an incidental phenomenon. However, it has to be treated very care-

fully, as in a patient with a four days' fever, in order to prevent emaciation, setting in as a result of too much desiccation, and of dropsy through too high moistness.

#### SOURCE OF THE MOTTO

*Clangor Buccinae*, in: *Art. Aurif.*, I, 537:

"Aes nostrum corpus habet hydropicum, ut Naäman Syrus leprosum, propter quod quaerit lavacrum regenerationis septies in Jordane, ut ab innatis passionibus et corruptionibus emundetur. Tunc habes sulphur et arsenicum non urens, quo possunt uti alchimisti et cum eo faciunt argentum perfectum. Gratianus dicit: Dealbate ergo Latonem ...". (etc., see source of the motto of emblem XI);

"Our ore has a dropsical body, just as Naaman, the Syrian, has a leprous body, and therefore it seeks a curing bath in the river Jordan seven times, so that it is purified of innate suffering and destruction. Then you have the non-combustible sulphur and arsenic, of which the alchemists may make use and with which they make silver perfect. Gratianus says: so make Latona white".

*Aurora Consurgens*, Codex Vossianus Chemicus no. 29, Leiden University Library: end of the fourth parable; published in C. G. Jung, *Mysterium Coniunctionis*, Zürich 1957, vol. III, p. 84-85: "Nonne dicit scriptura: Lavamini in eo et mundi estote. (*Isaiah*, I, 16). Et ad Naäman (Syrum) dictum est: Vade et lavare septies in Jordane et mundaberis (*II Kings*, V, 10). Nam ipse est unum baptisma in ablutionem peccatorum, ut fides et Propheta testantur (*Luke*, III, 3). Qui habet aures audiendi audiat, quid dicat spiritus (sanctus) doctrinæ filiis disciplinæ de spiritus septiformis virtute, quo omnis impletur scriptura, quod philosophi insinuant his verbis: Distilla septies et separasti ab humiditate corrumpente".

"Does not the Holy Writ say: Wash yourselves in him. And to Naaman the Syrian it was said: Go and wash seven times in the Jordan, and you will be clean. For there is one baptism for the ablution of sins, as faith and the prophet testify. He who has ears to hear, let him hear what the (holy) spirit of the doctrine says to the sons of science about the strength of the sevenfold spirit, with which the whole Scripture is filled, and which the philosophers



indicate by the following words: Distil seven times and you will have obtained a separation of the ruinous moisture”.

### COMMENTARY

As appears from the sources from which the motto is taken, the purification of Naaman refers to the purifying of metals, which are called lepers in impure form; further to the curing of incurable diseases, just as Naaman was cured of leprosy by the salutary water of the Jordan; and further to the purification of sins, for Naaman's healing in the Jordan was considered as being the prefiguration of christening. So the secret of alchemy and the Holy Writ appeared to be mixed together.

The epigram and *Aurora Consurgens* and *Clangor Buccinae* speak of washing seven times. This corresponds with the seven purifications by which the seven spirits are exorcized by baptism.<sup>1</sup>

In *Clangor Buccinae* “Naaman leprosus” and “dealbate Latonem” are mentioned in one connection and are rendered by Maier in the emblems XI and XIII, as already mentioned with embl. XI. The connection of whiteness, purity and baptism also fits in the baptism symbolism; for the Jordan rises in the Lebanon, which is symbolic for whiteness and purity, and the Jordan is the source of baptism, in which sinners wash themselves white.<sup>2</sup>

The discourse of embl. XIII pays much attention to dropsy, a disease which was deemed very difficult to cure; as difficult as the dropsy from which the sick metals suffer. One of the difficult tasks in the transmutation of metals was removing superfluous moisture; that is why the boiling down of the substance is mentioned time and again, which should be done without the matter evaporating entirely or being burnt. These difficulties are equated with the difficulties arising in curing sick people suffering from dropsy.

In this respect Maier holds Paracelsus in high esteem, because he fortunately knew how to cure dropsy, where others did not succeed. “Moreover”, Maier adds to his discussion of Paracelsus, to whom

<sup>1</sup> Ephraem Syrus, *Hymni et Sermones*, ed. Th. Lamy, Mechlin 1902, vol. I, 6: “Septem Elisæi purificationes figura sunt septem spirituum per baptismo expellendorum”.

<sup>2</sup> Honorius of Autun, *Speculum de Mysteriis Ecclesiae*, ed. Migne, P.L., vol. 172, col. 1099.

he grants a place at his "aurea mensa", "Paracelsus' books—if they were only purged of all crafty explanations, just as good fertile fields are purged of thistles—would undoubtedly yield a work worth reading and would contain many things not to be rejected by physicians and surgeons".<sup>3</sup>

*EMBLEM XIV*

(fig. 14)

MOTTO

This is the dragon which devours its own tail.

EPIGRAM

An atrocious hunger taught the Polyyps to gnaw at their own legs,  
And taught men to feed on human flesh.  
Now the dragon, while it bites itself in its tail and devours it,  
For the most part itself, becomes food for itself.  
This dragon will have to be conquered, by the sword, hunger and  
imprisonment,  
Till it devours itself and spits itself out, kills itself and generates  
itself again.

SUMMARY OF THE DISCOURSE

In Antiquity it was said that a serpent which devours a serpent becomes a dragon. For he rages among his fellows as a robber or a murderer. In Africa there were serpents in such a great number and of such a large size that they devoured a great deal of Alexander's army. The Aschæans of Ethiopia have such big serpents that they coil up like baskets; they live in the best pastures with their heads lifted. Indian kings seem to have had snakes of 80 to 90 yards. In

<sup>3</sup> M. Maier, *Symbola Aureae Mensae*, 286:

"..... tamen in medicina morbos aliis incurabiles, nempe cancrum, lepram, hydropem, paralyisin, podagram et id genus alios fælicissime curavit et sustulit medicamentis appropriatis et efficacissimis, quorum permulta in scriptis suis reliquit; at nullus eius discipulorum, quod scimus, hoc curandi fastigium attigit. . . .

Eius libri, si a calumniis omnibus, tanquam boni et fertiles agri a carduis, purgarentur, opus absque dubio efficerent lectu non indignum, in quo multa medicis et chirurgis non rejicienda continerentur".

Angola there are serpents as big as pines. In India and Africa some mountains, which contain much gold, are guarded by dragons, so that nobody may come near it. Then the dragons dwell near the sources or the rivers which flow from the mountains.

This is the reason why also the Philosophers bring so many dragons and snakes into their work, as in connection with the Golden Fleece, the Garden of the Hesperides (motif of the frontispiece of the *Atalanta Fugiens*), and with other chemical persons or objects, as Cadmus, Saturn (embl. XII), Aesculapius and Mercury (embl. X), whose double caducean rod is entwined with a male and a female serpent. For the Philosophers understand by serpents nothing but chemical objects. That is why they say: "The mountains supply serpents for the Rebis and the earth supplies sources" (that is to say the hermaphroditic being—the symbol of the contrast to be reconciled in the *Opus Alchemisticum* and in the *Cosmos*—consists of the contrast sulphur or fire contra mercury or water, and of the contrast heaven contra earth; in the passage just cited represented by mountains and dragons (heaven and fire) contra earth and sources (earth and water). Herewith the four elements fire, earth, air and water are mentioned. The Philosophers indicate the dragon's gluttony by letting it devour its own tail. Although others say that the dragon devouring its tail refers to the year returning upon itself and forming a circle, Chemists connected it in the first place with their work, and by the dragon devouring its fellow, they mean the sulphur proper, just as many authors state in numerous places.

Thus Lullius says in his *Codicillus*, chapter 31<sup>1</sup>: "Sons, this is sulphur, the little snake and the dragon which devours its own tail, the roaring lion (as in embl. XXXVII), and the sharp sword (as in embl. VIII); they separate and destroy everything". And Rosarius<sup>2</sup> says: "The dragon does not die, if it is not killed by its brother and its sister" (motto of embl. XXV). And a little further on: "The dragon is mercury drawn from the bodies, with body, soul and spirit in it". In another place this water is called stinking water (embl. XXXVII), because it is obtained after the separation of the

<sup>1</sup> R. Lullius, *Liber, qui Codicillus, seu vade mecum inscribitur.* . ., in: J. J. Mangeti, *Bibliotheca Chemica Curiosa*, 1702, I, 880.

<sup>2</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 301-302.

elements. About the dragon it is said that it devours its own tail and by this is meant that it digests the unstable poisonous and moist part, so that afterwards, without a tail, it is slower and more solid, as motion and instability are for the greater part contained in the tail.

Most animals move on their legs, but snakes crawl on their belly and are as lively as water, on all sides. Therefore the mercury is quite rightly spoken of as a snake and snakes are given as attributes to Mercury; an attribute, which it carries along as a tail. For just as a snail crawls, Mercury is winged at the head and feet. In Africa there are flying snakes, which, as is told, would depopulate all territories, if they were not destroyed by the ibis. That is why the ibis is considered to be a sacred animal in Egypt, for its use is evident through the region (its effect in manifesto), and it also has a secret reason (its effect in occulto), which is understood only by a few (the "flying snakes" are analogous to the "winged Mercury" or to the "volatile mercury or quicksilver", which should be balanced by an opposite force).

When the dragon has bitten off its tail and has cast off its old skin, it obtains, it is said, a new skin and a new youth, so that crows, ravens, eagles and deer are not the only ones which get a longer life from Nature, for snakes do also. An ant which grows old, acquires wings, but a man who gets old, is committed to the earth; once revived, however, he will be initiated into eternal life.

Out of a burnt snake, a powder arises, which is successfully used in combatting all sorts of poisons. In the same way out of this snake, devouring its own tail, the "Alexipharmacum" should be made, which is the most effective medicine against misfortune and illness. (The Philosophers' Stone, which transforms metals into gold and which, as aurum potable, is a medicine against diseases and a potion lengthening life).

#### SOURCE OF THE MOTTO

*Clangor Buccinae*, in: *Art. Aurif.*, I, 530:

about the distillation processes of Mercury:

"...Et quod inferius in cucurbita remanet, est sal noster, id est terra nostra, et est in colore nigra, draco caudam suam devorans; nam draco est materia in fundo remanens post distillationem

aquæ ab ea, et aqua illa dicitur cauda draconis et draco est eius nigredo, et draco imbibitur aqua sua et coagulatur, et sic devorat caudam suam."

"...And that which remains at the bottom of the cucurbit is our salt, it is our earth, and in the black colour is the dragon which devours its tail; for the dragon is the matter which, after the water has been distilled off, remains at the bottom, and that water is called dragon's tail, and its blackness the dragon, and the dragon is watered by its water and coagulated and in this way the dragon devours its tail".

Senioris Zadith, Filii Hamuelis *Tabula Chimica*, in: *Theatr. Chem.*, V, 233: "Draco autem est aqua divina, et cauda eius est sal eius, et est cinis qui est in cinere. Et de illo cinere ascendit pluvia viva, et vivificans, quæ descendit de coelo post exaltationem ad illud, et pervenit ad illum virtus superior et inferior per attractionem æris. Cumque descenderit super terram vivificabit eam post mortem eius, et vivet per eam, quicquid est in ea. Et per omnia significant hunc lapidem, et ex eo prodeunt omnia illa".

"The dragon, however, is the divine water (that is Mercury), and its tail is its salt, and it is the ash which is in the ash (the earth purified by double burning). And from that ash living rain ascends, which awakens to life, which descends from heaven after being exalted to heaven, and the higher and the lower power reach it by the attraction of the air. And when the rain descends upon the earth, the rain will rouse the earth to life after death, and through that everything that is in it will live. And by all these things they indicate this stone, from which all those things originate".

#### COMMENTARY

From of old the ouroboros represents the unity of the matter in alchemy; under two opposite aspects, however: "draco est nigredo" and "draco est aqua divina". On the one hand the dragon is the symbol of black matter in the stage of destruction and decomposition, on the other hand it is the live-giving rain. In the initial stage of the process it is the poison and in the final stage it is the means of salvation. It is the symbol of the circular movement of the alchemical process, consisting of a repeated dissolving,

evaporating and distilling of matter, in which the finer parts ascend and the coarser ones remain on the bottom of the retort. Both extremes are parts of the dragon, but by a sevenfold purification the perishable has become imperishable: the dragon bites itself in its tail.

In the discourse Maier informs us that, according to others, the dragon devouring its tail refers to the year. The source of that opinion is probably the *Horapollo*,<sup>3</sup> in which the dragon devouring its tail has the meaning of the year. Although Maier says that the Chemists connected it with their work and that by the dragon they indicated sulphur, he did not exclude the circular course of the year as meaning the dragon devouring its tail. This becomes evident from the discourse of embl. XLV:

"Thus the work should begin when the Sun returns from the South side to our Pole, when the Sun is in Capricorn; and the first stage of the work will be completed at the time the Sun stands in Aries; then the women's work commences (see embl. III and XXII), till the Sun stands in Leo; and after that the one work proceeds from the other, till the year seizes its tail with its head, like a snake, that is to say till it is completed".<sup>4</sup>

This is an indication to begin work on the transmutation process in harmony with the circular course of the seasons and in harmony with the various degrees of heat of the sun, that is to say one has to begin with the Sun in Capricorn, with a moderate warmth and to end with hardening the Philosophers' Stone in a very hot fire, in accordance with the Sun in Leo.

The alchemical dragon is related to the dragon of outmost darkness, which separates this world from the outer world; the dragon of the Old Testament (*Job*), which has to be destroyed before the lower world can be redeemed. The meaning fits in with the gnostic

<sup>3</sup> *Hori Apollinis Selecta Hieroglyphica, sive Sacrae Notae Aegyptiorum et Insculptae Imagines*; in 1419 the *Horapollo* was discovered in a Greek manuscript by a Florentine priest and subjected to a thorough study by the Florentine humanists (see G. Boas).

<sup>4</sup> *Atalanta Fugiens*, discourse to embl. XLV:

". . . . Incipiendum itaque Sole a meridionali latere ad nostrum verticem se iterum flectente, in Capricorno; et prima operatio usque ad Arietem erit absoluta, tum incipit opus mulierum, usque ad Leonem; et post labor ex labore provenit, donec annus capite caudam apprehendat, ut anguis, hoc est, absolutus sit".

writing *Pistis Sophia*:<sup>5</sup> "the outer darkness is an enormous dragon with its tail in its mouth; it is outside the world and has quite encircled it". This is the dark, negative side of the dragon. In the *Atalanta Fugiens* this is the dragon that is killed by Sol and Luna (embl. xxv), the dragon of the chaos, which is killed by the light.

The dragon also occurs as a symbol of light in *Pistis Sophia*: "But the sun-disk was a big dragon, with its tail in its mouth, which ascended to seven powers from the left and was drawn by four powers in the shape of white horses".<sup>6</sup> Here the dragon does not belong to the Empire of Darkness, but to the Empire of Light.

The dragon devouring its tail and its ambivalent meaning also appears in the text of Lambsprinck's emblems<sup>7</sup> (fig. 64). The text of Lambsprinck's emblem reads as follows:

"This is truly a great wonder and a swift cunning,  
That the highest medicine is found in the poisonous Dragon".

He proposes:

"Mercurius, recte et chymice praecipitatus vel sublimatus, in sua  
propria Aqua resolutus et rursum coagulatus",

"Mercury prepared and sublimated in the proper chemical manner  
and dissolved in its own water and coagulated again".

In his elucidation Lambsprinck speaks about the poisonous Dragon, living in the wood, for which no single animal is a match; but whosoever succeeds in killing this Dragon, escapes all dangers. After that Lambsprinck says:

"Et fit ex suo veneno summa medicina,  
Suum venenum subito consumit,  
Devorat enim propriam venenatam caudam",

"From its poison the noblest medicine arises,  
It immediately digests its poison,  
For it devours its own poisoned tail".

<sup>5</sup> Thorndike, *Hist. of Magic and Experimental Science*, I, 377-379; G. R. S. Mead, *Pistis Sophia*, translated, London 1896, sect. 319, p. 230.

<sup>6</sup> C. Schmidt, "Koptisch-gnostische Schriften", *Griech. Christl. Schriftsteller*, Leipzig, 13 (1905), p. 262, 24.

<sup>7</sup> See Lambsprinck, *De Lapide Philosophico Libellus*, Frankfurt 1625, embl. VI, with the motto: "Hoc vere est magnum miraculum et cita fraus. In veneno Dracone summam medicinam inesse".

Already in the earliest alchemical texts the ouroboros occurs as a symbol of the Unity of the Universe.<sup>8</sup> The earliest mention of the ouroboros in alchemy occurs in the Papyrus Leidensis,<sup>9</sup> although the associations there are more magical than alchemical. In the *Chrysopoeia*, an alchemical writing in the name of Cleopatra and originating from the time about Zosimos (300 A.D.), representations of the dragon devouring its tail occur, with in the snake the words "The One is the All" (fig. 65).<sup>10</sup>

### EMBLEM XV

(fig. 15)

#### MOTTO

Let the work of the potter, consisting of dry and wet, teach you.

#### EPIGRAM

Look how the potter forms his vessels on the swift wheel,  
 Whilst with his foot he mixes the clay with the water;  
 He always relies on two things,  
 So that by his dexterity the liquid quenches the thirst of the dry  
 substances.

Act in the same way, now wiser by this example,  
 That the water may not dominate over the earth, but neither be  
 dominated by it.

#### SUMMARY OF THE DISCOURSE

Just as the whole terrestrial globe is surrounded by earth and water and formed into a round body, so the potter's work seems to consist partially of the same elements; that is to say of dry and moist and that in such a way that the one tempers the other. The Earth would yield nothing, if there were no water available in the form of the Ocean, the sea, rivers, lakes and the sources. But if water was not imprisoned in the hollow places of the earth, the

<sup>8</sup> See H. J. Sheppard, "The Ouroboros and the Unity of matter in alchemy: A Study in origins", *Ambix* X (1962), 2.

<sup>9</sup> edited C. Leemans.

<sup>10</sup> The *Chrysopoeia of Cleopatra* has remained known from a manuscript from the 10th or 11th century, Venice, St Mark's Library, ms. 299, fig. folio 188 verso; ed. by M. Berthelot, *Coll. des Anc. Alch. Gr.*



water would dominate and cover the whole earth. But if the one penetrates into the other in an amicable manner and if by that mixing the earth tempers the moistness of the water, and if the water tempers the dryness of the earth, fertility results.

In the same way the potter mixes water and earth, till he obtains a kneadable mass, to which he gives shape on his wheel and lets it gradually dry in the warm air. After that he hardens the form in a hot fire, so that it becomes stone, proof against water and fire. The Philosophers advise setting to work in the *Opus Naturale* in the same manner, for as regards earth and water there is a great resemblance to the potter's work.

Now there is undoubtedly a great difference in the way of preparing and of composing the elements, of the matter and the form; for the potter's vessels have an artificial form, whilst the Philosophical Tincture has a natural form, which is the more noble as also its matter is nobler. The potter's work as well as the Philosophical Work is of an earthly nature, it is true, but there is nothing in it which does not seek heaven above, whilst in the potter's work a thick, dirty earth predominates. The object of both is the stone; the potter is after the common stone, the Chemist looks for the Philosophical Stone.

On account of the similarities put forward, somebody arrived at putting a number of bricks into a chest and white pebbles into another one, hoping to change them into gold and silver by diabolical conjurations. In the conviction that he could thus contain the Philosophers' Stone, he meanwhile spent large sums of money, in the expectation of acquiring new gold and silver from those chests. When in course of time it appeared that that expectation was unfounded, he died of shame.<sup>1</sup> For gold and silver should not be sought in a place where it is not to be found by nature, as in

<sup>1</sup> It is possible that Maier here alludes to Julius Sperber, an alchemist from the 2nd half of the 16th century, who has appreciation for Agrippa of Nettesheim; the latter fact would explain Maier's sarcastic tone in the discourse, if indeed he alludes to Julius Sperber, as Maier has only contempt for Agrippa of Nettesheim (see commentary embl. 1).

According to Kopp (H. Kopp, *Gesch. der Chemie*, II, 182, Julius Sperber states in his book *Isagoge* (see bibl. under Sperber) that the Philosophers' Stone has the power of making precious stones out of pebbles and of making one big pearl out of a thousand small ones, and of making glass malleable etc.; the conceptions blamed by Maier.

this divine work there is no room for diabolical magic and is as far removed from it as black magic from the pious man and as hell from heaven.

Although, the Philosophic Stone is, indeed, to be found, let nobody trick himself into believing that on that account the impossible can be effected, as also Isaïc (Hollandus) warns: "For nobody can be compelled to do impossible things, neither by the laws of Nature nor by the laws of the State". If somebody wants to transform precious stones or to make glass malleable, let him first investigate whether it is possible and whether or not it is in accordance with Nature. Also Geber says that the Philosophers say many things in an allegorical form and Geber says about himself that in places where he expressed himself clearly he has said nothing of importance, but that the truth lies hidden as wheat in the chaff in places where he expressed himself figuratively.

With plants and animals it is so, that one shall reap what one has sown. It must be considered whether this also applies to metals, which are not, like plants and animals, propagated by means of seed. For the parts of metals are homogeneous, namely sulphur and mercury; in plants and animals they are heterogeneous and organic. In metals there is no womb in which the seed can be received and nursing is out of the question, but only an increase and expansion in all directions is found. Metals form a mixture of heavy elements, but beside that plants and animals have also a vegetative or sensitive soul. But nevertheless it is a fact that there is something in the places below the earth, which, it is true, is not gold, but which is transformed into gold by Nature in the course of thousands of years, and this cannot be doubted. Who will deny that this is something analogous to the seed of gold? That gold and the power which transforms into gold are of one origin—be it that the latter is of a nobler form—and that therefore the gold seed is known, was already an established fact as appears from the following statement: "The philosophers mix dry with wet, sulphur with mercury, and it is to be obtained in a quite purified form from two mountains". (This statement is partly used as motto in embl. xxxviii).

#### SOURCE OF THE MOTTO

*Scala Philosophorum*, in: *Art. Aurif.*, II, 151:

About the two principles sulphur and mercury, about dryness and moistness:

"Igitur non per tingens donec Sol et Luna, et spiritus et anima in unum corpus, id est, in terram coniunctive convertantur. Exemplum huius est opus figuli, cuius fidentia in duobus consistit, videlicet sicco et humido: sicco ut convertat humidum, humido ut solvat siccum, sicque spiritu cum corpore mixto fit temperamentum, non ita rarum, ut spiritus, nec ita densum ut corpus. Nam solvere et coniungere sunt principalia huius artis et operis exordia et pollis unus. Nam qui non solvit et coagulat, multipliciter errat".

"..... So not dyeing thoroughly till Sol and Luna, and spirit and soul, are transformed into one body, that is to say into earth. An example of this is the potter's work, whose trust is put in two things, namely the dry and the moist; that he may change the moist by the dry and the dry may dissolve with the moist, and in such a way that by joining spirit (vapour) and body (matter) arises a good mixing ratio; not as thin as spirit (vapour) and not as solid as body (matter). For dissolving and coagulating are the foundations of this art and the starting-points and only matter of this work. For he who does not dissolve nor coagulate, often errs".

#### COMMENTARY

The discourse of this emblem speaks for itself; in the work of the alchemists the point at issue is a proper mixing ratio of the elements. As appears from the last phrase of the discourse and from the text of the *Scala Philosophorum* preceding the clause from it which Maier used as a source for his motto of emblem xv, it deals with the proper composition of sulphur and mercury; dry and moist, sulphur and mercury should be mixed in such a manner that there arises an in-between state, not as thin as vapour or spirit and not as condense as earth or body. The meaning points in the direction of the *Tabula Smaragdina* from emblem I, in which the following statements are found: "It rises from the earth to heaven, and descends again to the earth. And receives the strength of the things that are above, and of the things that are below. Thus you will possess the glory of the whole world, and all obscurity will flee from you . . . because

it will conquer each refined, subtle thing and will penetrate into each solid substance (analogous to the example from Maier's discourse that the solid, dry earth only becomes fertile when penetrated by water). In this way the world was created".

By mixing "dry and moist", in the manner in which the potter makes his pottery, the world has been created. Here we think of the Creator as the great potter, whose wheel is the firmament; he kneads man from clay and water and his individuality is defined by the influence of the planets.<sup>2</sup>

With reference to the story of the man who believed he was able to obtain gold by putting pebbles in a chest, Maier stresses, in the discourse of his emblem, the fact that the alchemists' opus cannot be brought about by impossible experiments, but that it is a divine work. At the end of the discourse he points to the theory that gold, originating from sulphur and mercury, ripens in the bowels of the earth in the course of the centuries.

The sulphur-mercury theory of the Arabic alchemist Jābir ibn Ḥayyān (see Introduction p.53) had become known in Western Europe by the *Summa Perfectionis*. Maier depicts the sulphur-mercury theory in his book *Symbola Aureae Mensae*.<sup>3</sup> The motto of that emblem (fig. 66) reads: "Ex sulphure et argento vivo, ut natura, sic ars producit metallas", "Just as nature, art makes metals out of sulphur and mercury". The picture of the emblem is divided into two scenes. On the left the section of a mountain is seen. Below in the hollow mountain, which represents the earth, two streams of vapour rise, which are indicated by the signs of mercury and sulphur and which flow together into the furnace placed on top of the mountain. Near the furnace the alchemist is standing. On the right of the picture stands a priest with a book in one hand and with his other hand pointing to the scene on the left. As appears from Maier's accompanying text, it represents Thomas Aquinas.<sup>4</sup> Maier ranges Thomas

<sup>2</sup> Similar thoughts occur in the world of thoughts of Arabic culture as well as in that of Western-European culture; e.g. in the quatrains of the Persian scholar (2nd half 11th century—1st half 12th century) of Omar Khayyām and in the writings of Hildegard van Bingen (12th century).

<sup>3</sup> M. Maier, *Symbola Aureae Mensae*, liber VIII, fig. on p. 365.

<sup>4</sup> The manuscript *Aurora Consurgens* was ascribed to Thomas Aquinas by the alchemists, a.o. in the manuscript of the *Aurora Consurgens* in the Leiden University Library, the Codex Vossianus Chemicus 29.

Aquinas among the alchemists because of the latter's pronouncement that it is permissible to sell genuine alchemical gold as natural gold.<sup>5</sup>

In his emblem from *Symbola Aureae Mensae*, in which the sulphur-mercury theory is pictured, Maier introduces Thomas Aquinas on account of the latter's commentary on Aristotle's *Meteorologia*, concerning the meaning of sulphur and mercury, from which—in proportion to their mixing—the metals originate. Further Maier says in his *Symbola Aureae Mensae* that with the sulphur-mercury theory Thomas Aquinas has in mind the process as it takes place in Nature, as well as the process in art; therefore in order to make gold and silver, Chemists should take, as an example, the process in Nature, in which the metals proceed from sulphur and mercury as from a father and a mother; in the stony cavities of the earth sulphur and mercury are coagulated from various exhaling vapours and solidified into a metal substance by mineral action.<sup>6</sup>

So this emblem xv from the *Atalanta Fugiens* gives expression to the sulphur-mercury theory; in that way the alchemist may obtain gold and silver. At the same time ideas here are inter-

<sup>5</sup> M. Maier, *Symbola Aureae Mensae*, p. 373: "Si autem, per alchemiam fieret (verum has been left out here) aurum, non esset illicitum pro vero vendere quia nihil prohibet artem uti aliquibus naturalibus causis ad producendum veros et naturales effectus sicut Augustinus dicit in libro III de Trinit. Cap. VIII de his, quæ arte Dæmonum fiunt". Maier cites this text from Thomas Aquinas, *Summa Theologiae*, secunda secundæ quæst. LXXVII, art. 2, 1.

<sup>6</sup> M. Maier, *Symbola Aureae Mensae*, p. 371:

"In libro Aristot. Meteor. 3 ad finem; Metallorum, inquit, propinqua materia sunt sulfur et argentum vivum, sicut Alchemistæ dicunt, ita quod in locis lapidosis terræ per virtutem mineralem generantur sulfur et argentum vivum; Deinde ex eis generantur diversa metalla, secundum diversam commixtionem eorum: Unde etiam ipsi Alchemistæ per veram artem Alchemiæ sed tamen difficilem propter occultas operationes virtutis cœlestis, quæ mineralis dicitur, quæ ex eo, quod sunt occultæ, a nobis imitari possunt per prædicta principia, vel per principiata ab ipsis, faciunt aliquando veram generationem metallorum. Hæc D. Thomæ verba naturam et artem simul comprehendunt, et utriusque operationis modum planissime ostendunt, nempe metalla ex sulfure et argento vivo, tanquam patre et matre ortum ducant; sulfur autem et argentum vivum in concavitatibus terræ saxosis ex fumis diversis exhalantibus congeletur et in metallicam substantiam induretur per virtutem mineralem: Inde Chymici exemplum capientes, ex sulfure et argento vivo idem naturale opus causantur, nempe aurum et argentum".

woven about the process of transmutation and purification in the alchemist or in the human soul itself: this appears from the combination of the sulphur-mercury theory and Thomas Aquinas, which Maier applies and which Maier depicts together in the emblem of *Symbola Aureae Mensae*. For in alchemical circles Thomas Aquinas was considered to be the author of the *Aurora Consurgens*, an alchemical-mystical manuscript, in which the purification of the human soul finds its expression in alchemical allegories. Further this appears from the clause "solve et coagula" from the *Scala Philosophorum*, used by Maier as a source for emblem xv. Dissolving and coagulating are the main things in this art; dissolving and purifying are the two factors that Maier—also in connection with the purifying of the soul—advanced in the emblems III, XI and XIII.

Finally this emblem contains the association with the cosmic transmutation process, in which God mixes the elements, as the potter mixes the earthen clay with water on the wheel.

### EMBLEM XVI

(fig. 16)

#### MOTTO

The feathers one lion has not, the other has.

#### EPIGRAM

The Lion, the conqueror of the quadrupeds, of a powerful disposition and strong of claws,  
Fights without fear and rejects flight;  
Let him hold with his paws the winged Lioness, who flees and wants to take up with her the male lion.  
But the latter stands on the ground immovable and keeps her from flying;  
May this picture of Nature show you the way.

#### SUMMARY OF THE DISCOURSE

The Lion is distinguished from other animals mainly by its magnanimity. In hunting it withdraws slowly, if it is threatened by superior members, for shame of flight, but when once it is out of the hunter's sight, it flees quickly, in the belief that it may wipe

out the disgrace of fleeing by concealing it. Its bones are firm and massive and so hard that fire springs from them when they are struck against each other, just as when pieces of steel or flint are struck against each other. And fire is the strongest reforming power of all. The lion seems to take its composition from the nature of the sun. It surpasses other animals in impetuosity and ardour, just as the sun surpasses the stars in this. Moreover, the lion is always found with its eyes open and fierly. Just as the sun stares at the earth with an open fiery eye.

When the lioness fights in order to defend its cubs, it keeps its look turned downwards in order not to recoil from the hunting-spears. When a lioness mates with a panther, it is punished with death by the lion through the latter's enormous strength. Therefore the lioness covers up the smell and the guilt in the river, or it flees, conscious of its guilt and out of fear of the lion, with the one with which it committed adultery.

The Philosophers have thought deeply about the surprising nature of this wild animal and they have formed all kinds of allegories about the lion, which form hieroglyphic testimonies, as it were, about their work. Noticing that the lion is steadfast, firm and without ruse or suspicion, the Philosophers compared the most important part of their work to the lion. The Philosophical Work is just as little inclined to be volatile as the lion is inclined to flee. Just as the lion has firm bones, so the Philosophical Work is firm and invincible. Just as the lioness is not always blameless because of her adultery, so is Luna or Mercury not always immaculate (cf. embl. XI, Latona of Luna with the black spots on her face should be made white), but is combined by ignorant laboratory workers now with this substance, now with that one, so that an adulterous combination is more often entered into—namely of things which are contradictory in Nature—than a legal marriage. Thus, for instance, the offspring of a lioness and a panther lacks the characteristic mane around neck and shoulders. Only the cubs of a lion and a lioness have them and therefore the philosophical lioness ought to be united with its own lion. From this a really magnanimous cub originates, which can easily be recognized by its claws. Moreover, the lioness should not be just a lioness, but it must be winged and it should be able to join issue with the lion, trusting the speed of its wings,

so that it is not too much handicapped by the lion's temper, but so that it may contemplate flight, if the lion flies into passion without reason (the lion is the symbol of dry, combustible sulphur, the lioness of liquid, volatile mercury). When it hesitates to flee the lion is fired with a burning love, through which, after struggle, arises friendship (neutralization of the contrasts between the elements).

Now one may wonder where a winged lion is to be found? It is near the mountain dedicated to Venus, in a deep valley in which only winged lioness live. On the top of the mountain, however, lives the red lion, springing from the generation which killed Hercules. This lion should be caught and led into the valley and united with the winged lioness. The latter is easily won, for it is the like that yields to the like. After that they have to be raised from the valley to the top of the mountain and from that moment on they will never flee from each other again, but will keep together in an indestructible union (analogous to the union of the "inferiora et superiora" from the *Tabula Smaragdina*; see commentary on embl. I; the motif of the mountain-top recurs in embl. XII and XLIII amongst others). It must be admitted that it is not easy to capture the lions and that it involves many dangers, but it has to be done. According to tradition lion and lioness do not feed together. Therefore they have to be hunted down and captured separately. If the lions are brought together at a tender age—that is two months after birth—and if they are joined together, when full-grown, it is not dangerous.

In spring the cubs are born with their eyes open. They have to be hidden with the greatest precision and care in order to prevent the lions from entering by a roundabout way and seizing the litter of cubs (that means the alchemist has to prevent the Philosophers' Stone (the lion's cub) being attacked at a tender, helpless age by a high degree of heat (the adult lion) for the Stone is like a child, which is first fed on milk and afterwards on more solid food; or it is like Achilles from embl. xxxv, who, as a child, was fed on milk by his mother in the day-time, and was hardened in the fire by night.

#### SOURCE OF THE MOTTO

a mixture of an allegory from Senior's *Tabula Chimica* (fig. 58) and Lambsprinck's *De Lapide Philosophico Libellus*, emblem IV, (fig. 67).



See also *Atalanta Fugiens*, commentary on embl. VII.

Senioris Zadith, Filii Hamuelis *Tabula Chimica*, in: *Theatr. Chem.*, V, 206:

"Coagulatum retinet Kaled, id est masculus retinet volantem, et volans est foemina, quae habet alas integras . . . , sed avis quae non habet alas, retinet illam. Et hoc principium primi operis est. Prohibet autem volantem a volatu, et ipsum facit stare secum, et colligatae sunt et retentae et incarceratae. Masculus autem est, qui sine alis existit sub foemina vero habet alas".

"That which is coagulated restrains Kaled, that is, the man restrains the volatile one, and the volatile one is the woman who has undamaged wings . . . , but the bird that has no wings restrains her. And this is the foundation of the first work; He restrains the volatile one from flight, and brings him and himself to a standstill, and they are united, restrained and imprisoned. The male, however, is the one, who, without wings, lives under the woman. The woman, however, does have wings".

Arn. de Villanova, *Speculum Alchymiae*, in: *Theatr. Chem.*, IV, 537, in which he speaks of two stones:

" . . . et unus habet alas et alter non",

" . . . . and the one has wings and the other has none".

Maier took the idea of rendering the contrast wingless-winged (the wingless sulphur and the winged mercury) in the shape of lion and lioness from Lambsprinck, embl. IV, the motto of which reads:

"Est summum portentum

Ex duobus leonibus unum fieri",

"The greatest wonder is that out of two lions one lion arises";

The epigram begins with the following words:

"Fideliter nos Philosophi docent Duos leones ambulare robustos Nempe masculum et foeminam, in valle tenebrosa et horrida latere",

"The Philosophers faithfully teach us that two powerful lions, namely a lion and a lioness, go about in a dark, horrible valley keeping out of sight".

He who succeeds in subduing these uncontrollable animals by wisdom and artifice, will acquire extraordinary fame. The text under the motto explains the meaning of the two lions: "Spiritus

et Anima sunt conjungendi et redigandi ad corpus suum", "Spirit and Soul should be united and be carried back to their body".

### COMMENTARY

This animal symbolism again illustrates the mercury-sulphur theory. The winged lioness represents the volatile Mercury synonymous with primeval water, with the Moon, which, in chemical and cosmic connection, should be united with the wingless lion, representing combustible, solid Sulphur or the Sun.

Their union leads to the Philosophers' Stone, in which the Sulphur has become incombustible and in which Mercury has become a solid substance, in which all volatility is bounding. All four elements, the cold, moist mercury and the warm dry sulphur should be connected indissolubly. The Sun should neutralize the negative, obscure side of the moon.

Maier has pictured the union of the contrasts of Sol and Luna in several emblems by way of animal shapes; as in embl. xxx by cock and hen; in embl. XLVII as wolf and dog, in embl. VII as the wingless and winged bird. The enmity between lion and lioness which Maier discusses in the discourse of his emblem, is the same as the enmity between wolf and dog.

In the discourse the stay of the lions in the valley and on the tops of the mountains is spoken of; this is a symbol of the circular course of the alchemical process, in which the heavy matter precipitates on the bottom of the vessel and the thin vapours rise to the top of the vessel, and in which finally the superiora and the purified inferiora combine to form the Philosophers' Stone. This circular course, depicted by the valley and the tops of the mountains, recurs in embl. XLIII, in the shape of the eagle on the top of the mountain and the black crow with clipped wings at the foot of the mountain. Maier also uses the motif of the contrasts in the shape of lions in the frontispiece. He takes the datum of the lion and lioness of the frontispiece from the legend about Hippomenes and Atalanta, who are changed into lions by Rhea, after having desecrated her temple by their love.

## EMBLEM XVII

(fig. 17)

## MOTTO

A fourfold fire-ball controls this work.

## EPIGRAM

You who imitate the work of Nature must look for four balls,  
 In which a bright fire is active.  
 Let the undermost have reference to Vulcan, but let the second one  
     show Mercury well,  
 The third circle spans Luna;  
 The fourth, yours, Apollo, is also called the fire of Nature:  
 Let this chain guide your hands in art.

## SUMMARY OF THE DISCOURSE

In many places the philosophers have spoken of four kinds of fire necessary, to our *Opus Naturale*, as for example, Lullius, and the author of the *Scala* and various others. Thus it is written about the kinds of fire in the *Scala*.<sup>1</sup> "Raymundus (Lullius) says: It should be remarked that there are opposite actions here; for just as the fire contrary to nature, (*ignis contra naturam*) dissolves the spirit of a solid body into cloud water and contracts the body of a volatile spirit into hard earth, so the natural fire (*ignis naturæ*) solidifies the dissolved spirit of a solid body by opposite action, and gives it the shape of globular earth and dissolves the body or the volatile spirit which has become solidified by fire contrary to nature (*ignis contra naturam*); this time not into cloud water but into the water of the Philosophers" (the various kinds of fire influence the states of aggregation).

Of these kinds of fire Riplæus speaks more clearly in his *Porta* 3:<sup>2</sup> "There are four kinds of fire you should know of, *ignis naturalis*, *innaturalis*, *contra naturam* and *elementalis*; the latter is the common fire (*ignis elementalis*), which makes wood kindle (in the epigram this kind of fire is called Vulcan). We make use of these four kinds of fire and of no others. The fire which is contrary to

<sup>1</sup> *Scala Philosophorum*, in: *Art. Aurif.*, II, 135.

<sup>2</sup> G. Riplæus, *Liber Duodecim Portarum*, in: *Theatr. Chem.*, III, 806.

nature (*ignis contra naturam*) has to torment bodies, it is the dragon, which causes burning to be fierce just as is the fire of hell (it is the negative side of the dragon of embl. XIV and is called Mercury in the epigram of embl. XVII). The natural fire (*ignis naturalis*) is the third menstruum; it is the fire that is naturally present in everything (in the epigram it is called Apollo). We call the fire that occasionally occurs, the unnatural fire (*ignis innaturalis*), as, for instance, the warmth of bath-water or of ashes serving for putrefactio (as in the case of Luna in the epigram; just as she owes her light to somebody else, the sun, so ashes and bathwater owe their warmth to another source). Without these kinds of fire you will not be able to dissolve anything, you will not attain the putrefactio, by which your material is separated and gives rise to a new combination. Therefore in your glass make a fire, which burns more effectively than common fire (the *ignis elementalis*)”.

They are called kinds of *fire*, because they possess the action of fire; the natural fire has the power of coagulating, the unnatural fire has the power of making things dissolve, the fire contrary to nature the power of destroying and the common fire the power of procuring warmth and the first motion. And in these four kinds of fire a chain-like sequence is to be perceived, so that the second kind is dependant on the first, the third on the second, and the fourth on the third but also on the first, and is stimulated to action, and that in such a way that the one is an active principle (*agens*) and the other a passive one (*patiens*) but at the same time each kind of fire is in itself both an active and a passive principle. In these kinds of fire we see the same phenomenon as in a magnet with iron rings. The common fire acts as a magnet and communicates its power to the second, third and fourth kinds of fire and makes them connect with each other by mutual action, till the inner action under the higher one has been completed. The first one is the common fire, both in fact and in name, the second one is the air-fire or the volatile by nature, the third fire is watery, or of the nature of the moon, the fourth fire is earthlike. It is superfluous to speak of the first one, as it is known to everybody who can see and feel. The three other kinds of fire are the dragons, the menstrua, the waters, the sulphurs and the mercuries. They are called dragons because they share a poisonous nature and they are called snakes because they devour their

own race and because they change the bodies which are connected with them, that is to say, they dissolve and coagulate.

Further they are called *menstrua* because from them the philosophic embryo springs, which is fed by them till birth. In his book *Quinta Essentia*, verse 3, Lullius speaks about vegetable and about mineral menstruum. In the preface of *Portae* Riplæus speaks about three menstrua, which essentially form a unity. For the embryo springs equally from all three of them, and the white water precedes its existence, because it forms no part of the substance of the embryo, but is something superfluous and therefore it should be separated.

They are kinds of *water*, because they show their water nature in the fire; for they are fluid and they flow and this corresponds to the nature of water. It is known about the waters that they possess wonderful and diverse properties, e.g. a petrifying, solidifying action, in which case water may even be used as building-stone for buildings. Identical with them are the philosophical minerals, which become hard and turn into stone.

They are also called *sulphurs* because of their sulphur-strength which they have in them. For the sulphur of Nature is mixed with another sulphur and becomes one sulphur; and two sulphurs are dissolved by one sulphur, and one is separated by two and the sulphurs are hidden in the sulphurs, as Yximidius<sup>3</sup> says in the *Turba*. However, what the sulphurs are, Dardaris<sup>4</sup> explains, also in the *Turba*, in the words: "The sulphurs are the hidden souls of the four elements, which, taken out of them by art, contain each other and which are united. If, however, you treat the hidden, which is hidden in the womb of sulphur, with water and purify it well, the hidden—confronted with its own nature—rejoices in it, just as the water rejoices in its equal". And Mosius<sup>5</sup> says in the *Turba*: "Let me tell you what it is. The one is fiery mercury, the other is its body, the third is sulphur water, with which the one is washed, smashed to pieces and dominated till the work has been completed". What is said about the sulphurs may be said likewise about the

<sup>3</sup> Yximidius in the *Turba Philosophorum*, in: *Art. Aurif.*, I, 49.

<sup>4</sup> Dardaris in the *Turba Philosophorum*, in: *Theatr. Chem.*, V, 33-34, sermo XLIII.

<sup>5</sup> Mosius in the *Turba Philosophorum*, in: *Art. Aurif.*, I, 123.

different kinds of *mercury*; thus Mosius says a little further on: "The mercury, Cambar, is magnesium, the mercury or gold colour-means is sulphur which rises from the mixed combination". May these quotations, which are to be cited in a countless number be sufficient to you. The four kinds of fire mentioned are, as it were, locked up in balls, that is to say, each of them has its own centre, from which or towards which they move, but for all that one may observe that they are formed partly by Nature and partly by art, so that the one without the other hardly possesses any force, as the active principle of the one is the passive principle of the other and vice versa.

### SOURCE OF THE MOTTO

Based on:

*Turba Philosophorum*, in: *Art. Aurif.*, Sententia IX, p. 77.

*Scala Philosophorum*, in: *Art. Aurif.*, II, 135.

Riplæus *Liber Duodecim Portarum*, in: *Theatr. Chem.*, II, 806.

Raymundus Lullius, *Testamentum, Theorica*, in: *Theatr. Chem.*, IV, 116-117.

### COMMENTARY

Maier speaks of four kinds of fire, which are active in the alchemical process. There is a quantitative and qualitative difference between them. In the *Scala Philosophorum* the degrees of heat are indicated as follows: "The first fire is slow and tepid like the warmth of flesh or of an embryo. The second is moderate and tempered like the Sun in June. The third is big and strong like the fire of calcination. The fourth is seething and vehement as in melting, and each of them will double the other".<sup>6</sup>

There is further a classification of the nature of the fire, as Riplæus describes: "There are four kinds of fire, which you have to know about, the natural fire, the unnatural fire, the fire contrary to nature and the elementary fire, which latter one makes wood kindle. We use these fires and no others".<sup>7</sup>

<sup>6</sup> *Scala Philosophorum* in: *Art. Aurif.*, II, 135:

"Primus lentus et tepidus velut carnalis seu embrionis. Secundus mediocris et temperatus ut Sol in Junio. Tertius magnus et fortis velut ignis calcinationis. Quartus fervens et vehemens, quasi fusionis, quorum quilibet duplicabit alterum".

<sup>7</sup> See note 2.

In the epigram of Maier's emblem the various kinds of fire are indicated by Vulcan, corresponding with the common fire, Mercury, corresponding with the fire contrary to nature parallel to the fiery dragon; for in the initial Mercury is identical with caustic acid or burning water, by which matter dissolves. Luna corresponds to the heat of ashes or baths and Apollo to the natural fire which is present in all things.

Beside the fire, which is used in chemical experiments, fire has also a cosmic meaning, for, as one reads in the *Turba*, "God created the angels from one element, namely from fire and he created the Sun, Moon and Stars from two elements: fire and air. Because the angels were created from one element, the fourth one, they are clearer than sun, moon and stars. Brute animals are created from fire, air and earth and man from all four elements".<sup>8</sup> The alchemist's task is to tackle "the work without end" and to transmute the coarsest element, earth, into the less coarse element, water; water into the finer element, air, and this into the thinnest element, fire, in this way gradually drawing nearer to the throne of God.

This hierarchy in the elements is elaborated in R. Lullius' *Testamentum*,<sup>9</sup> coarse earth is made finer and in this way water comes

<sup>8</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 77, sententia IX.

<sup>9</sup> R. Lullius, *Testamentum* in: *Theatr. Chem.*, IV; the quotations following are from Chapter LXXIX, p. 116-117:

"Ideo fili tibi dicimus, si velis nos intelligere, quando terra per suum contrarium erit subtiliata, vertitur in naturam aquæ propter qualitatem, scilicet, frigiditatem, quæ participat inter siccitatem et humorem. Et quando aqua illa plus subtiliatur per ignem in naturam æris vertitur. Et quando ille ær plus subtiliatur, vertitur in naturam ignis, et per consequens per retrogradationem est, quod quando natura ignis ingrossatur, convertitur in naturam æris humidi, et tunc ignis tantum de calore suo perdit, quantum humiditas potest sibi contraria per hebetationem suæ ingrossationis. Et quanto hæc natura melius condensatur per inspissationem, tanto melius in aquæ naturam convertetur, quæ per suam condensationem mortificavit majorem partem caloris. Et perdit magnam partem humoris per indurationis approximationem natura æris ad qualitates terrestres, et quando hæc aqua magis inspissatur, tunc vertitur in terræ naturam, et propter sui frigiditatem amittit partem sui humoris gyrando se et portando in siccitatem. Quare si vis ignem nostrum accendere, administra ei cibum levem et tenerum, quia eius hebetatio et mortificatio non venit nisi per cruditatem et grossitiam materiæ, sicut patet in declaratione prædicta. Quando igitur voles de terra ignem facere, subtilia terram quantum poteris, et quando velis de igne terram facere, condensa fortiter ignem. Dicimus quod ær et aqua causa

into being; from this air, and from thin air, fire arises. In reverse order fire may descend to the earth. "We open for you, O sons, the gates of nature in order to enter into all its works, if you understand that the higher elements (fire and air) are the cause of the subtilization of the lower elements (earth and water). This subtilization brings about vivification and animation. Inversely the lower elements are the cause of the coarsening of the higher elements".

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sunt ingrossationis ignis, et melius ær quam aqua, et melius aqua quam terra. Et minus terra, quam aqua, et aqua minus quam ær. Sed terra omnibus suis viribus inspissat aquam, eam vertendo ad suam naturam terræ et aquæ, se condensando et convertendo ad naturam terræ inspissat ærem, et vertit eum ad suam propriam naturam aquæ. Et ær se ad naturam aquæ convertendo per inspissationem condensat ignem, et facit eum converti in ærem per suæ subtilitatis ingrossationem. Similiter ignis omnibus suis viribus nititur ærem vertere ad suam ignis naturam per subtilitatem suæ puræ substantiæ: et iste ær conversus ad naturam ignis subtiliat aquam. Et ideo vertit ad naturam suam æris per rarefactionem alleviationis. Et hæc aqua versa in naturam æris rarificat terram, et facit eam verti in naturam suam aquæ per subtiliationem suæ grossæ substantiæ. Et per hunc ultimum ordinem elucet secretum compositionis aquæ nostræ filiis intelligentibus, cum vivaciter apparet, quod natura sicca non potest in humidam verti, quousque in naturam frigidam convertatur.

Fili manifeste tibi portam naturæ aperimus ad intrandum omnia opera sua, si intelligas, quia superiora elementa causa sunt subtilitatis inferiorum. Et subtiliatio causa est vivificationis et animationis. Elementa vero inferiora sunt causa ingrossationis aliorum elementorum. Et hoc ratione attractionis proximoris consonantiæ, quæ jacet in suis naturis, ut nuper extitit declaratum per terram et per ignem, et ingrossatio causa est mortificationis, et hebetationis caloris animalis. Et nos bono juramus animo, quod subtiliatio non fit sine ingrossatione, nec ingrossatio sine subtiliatione, nec dissolutio terræ sine congelatione aquæ, nec aquæ congelatio sine dissolutione terræ. Fili in spiritu dissolvitur corpus congelatum, et per corpus constringitur spiritus congelatus, quia congelando spiritum, dissolvimus corpus, et corpus dissolvendo, congelamus spiritum, Fili vide et aspice multiplicationem veræ tincturæ, quam Deus dedit naturæ ad transmutationem faciendum, quia de uno pugillo terræ et novem æris facimus decem aquæ. Et ideo de uno pugillo huius aquæ, et novem ignis facimus decem æris, per scalam vivificationis ascendo ad subtiliationem naturæ grossæ in naturam simplam et superiorem, similiter de uno pugillo ignis et novem aquæ fiunt decem æris mortui, qui est aqua viva. Et de uno pugillo istius æris mortui, et de novem pugillis terræ fiunt decem aquæ gloriosæ. Intellige fili verba, quoniam hæc est doctrina, per quam omnis mensura et omne temperamentum fiunt.

Et est necessarium, quod in nostro magisterio fiant, sine quibus fieri non posset. Hæc est cathena deaurata et rota circularis totius mundi, per quam natura sagax omnia sua regit instrumenta rotando et circulando in circuitu, quam supremus creator conservare in suis divinis mirabilibus et infinitis potentiis voluit et vult".



So this transmutation and subtilization of the elements take place in the retort, and in the cosmos, and in the human soul. Lullius concludes his chapter about the rotating motion of the elements as follows:

"This is the gold chain and the circulating movement of the whole world, by which the wise nature governs all its instruments, by letting them revolve in a circular course, as the highest creator desired and still desires to maintain in his divine miracles and endless power".

By this allusion to the gold chain the attention, in connection with this emblem, is drawn to emblem v, in which the toad, nursed by the woman, also wears a gold chain (see commentary to embl. v, last paragraphs). In different ways both emblems symbolize the circular course of spirit and matter in the Universe.

### EMBLEM XVIII

(fig. 18)

#### MOTTO

The fire likes making things fiery, but not, like the gold, making gold.

#### EPIGRAM

As far as there has been an active principle in nature,  
It spreads its forces around and wants to multiply them.  
In this way fire makes everything it meets fiery,  
And there is nothing that produces a noble work without cause.  
By itself gold makes nothing fiery, neither does fire make gold,  
Each thing discerns the seed which it carries in itself.

#### SUMMARY OF THE DISCOURSE

The procedure of Nature in acting upon all things of the Universe is such that it uses a simple process in order to complete a simple motion. This becomes evident from human anatomy: one muscle serves to contract the hand, another one to stretch it again and in a turning movement of one of the limbs the various muscular movements have been arranged circularly. It is the same with the action of fire. Fire heats and fire transmutes into fire, fire makes everything

like itself and burns everything that is added to it and that is combustible.

That is why Avicenna, in his *Liber de Congelatione Lapidum*, says: "Whatever falls into a salt-pit becomes salt, and whatever falls into the fire becomes fire; the one quicker than the other in proportion to its active force, its 'potentia active', or its passive power of resistance, its 'resistentia passiva'. In Arabia there is a place which gives its colour to all things".<sup>1</sup> Thus natural things have a power by means of which they give their own nature and form to things added to them, by a process of assimilation. With plants and animals reproduction takes place by means of seed, but with simple bodies or bodies of a simple composition this takes place by introducing force and by means of assimilation.

Thus the sun, the celestial luminary, sends its beams to the earth and when these beams are bundled in a sun-glass, shapes are seen, which are, as it were, form projections of the sun. On these grounds it is established that sun-beams are nothing but flames of fire, which are spread out over a wide space; when, however, they are focused, they burn everything that comes within the point of focus.

Likewise in a body which consists of elements there is a force present which is spread like a vapour, but which is condensed to become water when bundled, and in further bundling is condensed to form earth. Avicenna says: "Out of water, earth comes into existence, when the forces of the earth conquer the water, and vice versa. However, there exists a means, which some inventive people use when they want to coagulate things to form something dry, which is composed of two waters, and that means is called Virgin's milk".<sup>2</sup> There are people who claim to be able to double or multiply the force of a magnet; thus I saw myself how a magnet of a pound, mounted in silver, lifted an anchor of 28 pounds of iron, and that would have been impossible if the force of the magnet had not been strengthened; that was undoubtedly done by concentrating diffused forces or by contracting forces from a larger body into a smaller one.

Other people again believe that the lead-making stone can be made from the sulphurous vapour of Saturn, which is retained in common mercury, till it has become solid; and that after that it can

<sup>1</sup> *Liber de Congelatione et Conglutinatione Lapidum*, in: *Art. Aurif.*, I, 402.

<sup>2</sup> *Art. Aurif.*, I, 401.

continually change common mercury into lead. Some allege that they are able to make copper out of antimony, and copper out of coppersmoke in the short time needed for eating an egg; in the same way other metals could be made. It does not appear very credible to me and I do not know whether those who try to make gold out of gold, in the poet's words: "He who cares for barley, may sow barley, in the gold the seed of gold is lying",<sup>3</sup> are more fortunate.

Metals, minerals and fossiles have by no means the natural way of procreation, as plants and animals have. Some plants give thousands of fruits from a small seed, but in this way the procreation of gold, silver, lead, iron, copper or mercury has never been achieved, although one may find that one metal changes into the other or is refined. Nevertheless philosophers pretend that in fire the starting-point is to be found for making fire and thus the starting-point for making gold is sought in gold. But one should seek the Tinctura, by means of which gold comes into existence. And this has to be sought in its own origin and not in the origin of other things; for just as a pear-tree produces a pear-tree and a horse produces a horse, and lead produces lead and not silver, so it is gold which will produce gold, and not the Tinctura. This gold is known to the Philosophers and they do not deny that it has to be used as a fermentation agent at the end of their work at the gold-making Stone, for the fermentation agent transforms the material to be fermented into its own substance, and without that the whole composition would never come to perfection.

#### SOURCE OF THE MOTTO

G. Riplæus, *Liber Duodecim Portarum*, in: *Theatr. Chem.*, III, 802: "..... nam quemadmodum ignis est ignificandi principium, ita certe principium aurificandi est aurum". "For in the same way as fire is the foundation for making fiery, so gold is really the foundation for making gold".

#### COMMENTARY

The meaning of the emblem makes it clear that everything strives

<sup>3</sup> The said poet is J. A. Augurellus, *Chrysopoeia Ad Leonem Decimum Pontificem Maximum*, in: *Theatr. Chem.*, III, 211.

to propagate its own kind. The last line of the epigram: "Each thing discerns the seed which it carries in itself" is, just as the motto, taken from Riplæus, *Porta I*, "Junge genus cum genere et speciem cum specie, ut æquum est. Nam unumquodque germen respondet suo proprio semini, vir generit virum, brutum brutum". This emblem is meant as a warning for those alchemists who think they are able to make gold from matters which are foreign to the nature of gold, e.g. from eggs or blood. It is a warning to alchemists eager for wealth not to misunderstand the alchemical allegories by starting to experiment with raw materials which only have an allegorical meaning. Arnold of Villanova says about the origin of metals: "It is an established fact that from a man only a man can come into existence and from a horse a horse; metals only come into being from their own seed. Now mercury is the seed and origin of metals, as all philosophers say so".<sup>4</sup> And indeed, Senior also stresses the fact that the Stone comes into existence without adding foreign elements, "in itself and from itself the root, the branches, leaves, flowers and fruits are completed".<sup>5</sup>

It is remarkable in emblem XVIII to find the doubt which Maier expresses of the possibility of bringing about a real transmutation of base metals into gold in an artificial way. Maier assumes that Nature can achieve this transmutation; this appears from the final passage in the discourse of emblem xv. Man can refine metals in an artificial manner, but an essential transmutation of the kinds does not then take place. Maier bases this doubt on Avicenna's *De Congelatione et Conglutinatione Lapidum*,<sup>6</sup> from which he quotes some phrases in his discourse, which refer to the assimilation process of matters to each other. The first quotation (note 1) reads: "Whatever falls into a salt-pit, becomes salt, and whatever falls into the fire becomes fire; the one quicker than the other in proportion to its

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<sup>4</sup> Arn. de Villanova, *Flos florum*, in: *Art. Aurif.*, II, 514: "Quia certum est, quod non generatur ex homine nisi homo, nec ex equo nisi equus. . . . metalla non generantur, nisi ex spermate proprio . . . : argentum vivum autem est sperma metallorum et origo eorum, prout dicunt omnes philosophi".

<sup>5</sup> Senior, *Tabula Chimica*, in: *Theatr. Chem.*, V, 221: "Lapis igitur sapientum in ipso, et ex ipso perficitur radix, et rami, et folia et flores, et fructus".

<sup>6</sup> *De Congelatione et Conglutinatione Lapidum* is part of Avicenna's *Kitāb al-shifā*: E. J. Holmyard and D. C. Mandeville, *Avicennæ de Congelatione et Conglutinatione lapidum, being sections of the Kitāb al-shifā*, Paris 1927.

active force, its 'potentia activa' or its passive power of resistance, its 'resistentia passiva' ". The second quotation reads (note 2): "Earth rises from water, when the forces of earth conquer the water and vice versa. However, there is a means, which some inventive people use, when they want to coagulate what is composed of two waters, into something dry (death with in emblem XL under the motto: Make one water out of two waters, and it will be the water of holiness) and which is called the Virgin's milk". In embl. XL the Virgin's source is mentioned and further the water from the Virgin's source is associated with the milk with which the Virgin Mary nurses Christ, the Salvation of the world; analogous to the notion of the Philosophers' Stone, which has to be fed by maternal milk in its "youth", as is pictured in embl. xxxv. Maier pictures the association between the Philosophers' Stone and Christ, being nursed by Mary's milk in his *Symbola Aureae Mensae*, p. 509, with the motto: 'Lapis, ut infans, lacte nutriendus est virginali', (fig. 68).

This writing of Avicenna, *De Congelatione et Conglutinatione Lapidum*, from which Maier uses two quotations, which lead him to associate the Philosophers' Stone with Christ, is also the source of Maier's doubt about the possibility of an intrinsic transmutation of metals by the hand of man. Avicenna deals with the Sulphur-Mercury theory and argues that metals can be transformed into a nobler metal, by increasing the degree of purity and sulphur. He then continues by denying that, in doing so, the 'species' are changed:

"And in an artificial way artists bring about a hardening which is more or less equal; although artificial things are not the same as natural things, they nevertheless have some points of resemblance; and likewise it is believed that the natural composition takes place in the same way or in a related one. But art is feebler than nature, and does not follow the latter, however much it exerts itself. But may the artists of alchemy know that the species of things cannot be changed: They may be able to make things which resemble them and colour red yellow, so that it resembles gold, and colour white into the colour they want, till it is very much like gold or copper. Also after wiping off the impurity of lead, it will always remain lead, although it seems to be silver. But decidedly other qualities will be present, so that people are deceived, like those who get salt and ammonia salt. For the rest I do not believe that it is possible to take away the differences between the species by genius and it is

not possible for one combination to be changed into another; because things which can be perceived do not form the difference by which the species is changed, but those perceptible things are accidental circumstances and properties. The differences, however, between the species are not known and when the difference is not known, how can one know whether the difference is taken away or not, and in what way it could be taken away?"<sup>7</sup>

This denial of the possibility of a natural transmutation in an artificial way implies agreement that the essential nature and combination of the matter was not known.

Maier's attitude is one of hesitation,<sup>8</sup> but he inclines to the view that a real transmutation cannot be brought about by man.

<sup>7</sup> Avicenna, *Liber de Congelatione et Conglutinatione Lapidum*, in: *Art. Aurif.*, I, 408: "Et artifices faciunt gelationem fere similem artificialiter, quamvis artificialia non sunt eodem modo, quo et naturalia, nec tamen certa habent similia: et ideo creditur quod compositio naturalis fiat hoc modo, vel vicina huic. Sed ars debilior est quam natura, nec sequitur eam, licet multum labore. Sciant vero artifices Alchimia, species rerum transmutari non posse: sed similia illis facere possunt, et pingere rubeum citrino ut videatur aurum, et album pingere colore quo volunt, donec sit multum simile auro vel æri. Post quoque plumbi immunditias abstergere, ipsum tamen semper erit plumbum, quamvis videatur argentum. Sed tunc optime erunt in eo qualitates alia, ut errent homines, ut qui accipiunt salem, et salem armoniacum. Cæterum quod differentia specifica tollatur ingenio, non credo possibile, et non est quod complexio una in aliam convertatur: quia ista sensibilia non sunt differentia, qua permutatur species, sed sunt accidentia, et proprietates. Differentia autem eorum non sunt cognitæ, quia cum differentia sit ignota, quomodo potest sciri utrum tollatur necne, vel quomodo tolli possit?"

<sup>8</sup> In spite of Avicenna's denial of the possibility of transmutation, already in the Middle Ages Avicenna was acknowledged by the alchemists to be one of them, as he did accept other alchemical starting-points like the sulphur-mercury theory. According to mediæval alchemists Avicenna would later on have recognized that transmutation was possible. Avicenna's conversion to a belief in the possibility of transmutation, however, is a legend, as a consequence of which there came into being a lot of alchemical writings in the name of Avicenna. These works ascribed to him are falsifications (see J. Ruska, "Die Alchemie des Avicenna", *Isis*, 60 (1954), XXI, 1).

In mediæval alchemical authors one even sees that the truth is reversed and that Avicenna's authentic *Liber de Congelatione et Conglutinatione Lapidum* is considered not to be genuine and that work ascribed to Avicenna, in which he assents to the possibility of transmutation, is accepted as genuine. One of them is Petrus Bonus; in his *Margarita Pretiosa Novella* of 1330 (in: *Theatr. Chem.*, V, 541) Petrus Bonus quotes the *Liber de Congelatione et Conglutinatione Lapidum* as Aristotle, *Liber quartus Meteorum* or *Metaphysicorum*. He knows that the treatise is also ascribed to Avicenna, but denies Avicenna's authorship by pointing out that the possibility of trans-

## EMBLEM XIX

(fig. 19)

## MOTTO

If you kill one of the four, everybody will be dead immediately.

## EPIGRAM

Twice two brothers are standing in a long row,  
 One of whom holds a lump of earth in his hand and a second one  
 carries water;  
 The share of the others is air and fire,  
 If you want them to perish, kill only one of them;  
 And all will be extirpated by the murder of their relative,  
 Because mutual bonds of nature unite them.

## SUMMARY OF THE DISCOURSE

The poets tell that Geryon, King of Spain, had three bodies and also possessed purple cattle, which were guarded by a two-headed dog and by a seven-headed dragon. Geryon himself was the son of Chrysaor and descended from Medusa and the seven-headed dragon descended from Typhon and Echydna. Taken literally this does not agree with the historical truth, but the story is rightly used in alchemical allegories. By Geryon having three bodies—with Hermes in mind—the three faces of one father should be understood (embl. XLIX with the motto: "The Philosophical Child acknowledges three fathers, just as Orion"). Others assume four instead of three and

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mutation is denied in it, in contrast with the spurious writing, which, according to Petrus Bonus is rightly credited to Avicenna under the title of *Tractatus ad Asten de Retia*, where the author takes up the cudgels for the truth of alchemy. The title of the writing just mentioned. *Tractatus ad Asten de Retia*, occurs under various divergent forms, amongst others as *Tractatus ad Hakasen de Re tecta*, or *Hahasen*, or *Asen*. The latter variant "*Asen*" resembles "*Assem*". That is why I identify it with the writing that Maier mentions in his *Symbola Aureae Mensae* (p. 198), as a writing of Avicenna's, under the title *Tractatulus ad Assem Philosophum*.

Mindful of the denial of the possibility of transmutation in the *Liber de Congelatione et Conglutinatione Lapidum* and the acknowledgment of the possibility of transmutation in the *Tractatulus ad Assem Philosophum*, which were both ascribed by Maier to Avicenna, and therefore possessed great authority, it was difficult for Maier to distil from them a firm conclusion in respect of the transmutation of the species.

relate it to the four elements, for out of the square a triangle should be made and just as the square originates from the circle, the triangle should be reduced to the circle (depicted in embl. XXI). There exists such a strong relationship between the four elements, that at the death of one element the other three disintegrate also, without anybody being able to prevent this. It is the same as in the case of twins, tho were united from birth: if one suffers, the other also suffers and if one dies, the other also dies. Therefore it is not improbable that at the death of one of these four brothers the other three also die; this may happen in various ways: either because they are born alike as a quadruplet from one pair of parents and consequently finish their lives at the same time, just as they began them alike, perhaps under the influence of the stars; or because they are interdependent not only as regards their bodies but also as regards their souls and perish as the result of a mental shock, as for instance, by imagination in an epidemic of plague, or end their lives as the result of a promise.

In India, during the reign of the Grand Mogul, it was the custom to burn a man's widow with him, when he died; this was done in order to prevent men being poisoned by their wives.

The same happens in the Philosophical Work. When one of the brothers dies, the others also perish in the fire. If, however, one of them is not killed, but is wounded by a stick or a stone, there arises a struggle from within, which lasts until all are dead, in the same way as the giants, who grew from the dragon's teeth sown by Jason and Cadmus, killed each other. If of the four brothers the air-carrier is wounded, he immediately turns himself upon his two fellow-creatures: the water-carrier and the fire-carrier; and these two turn upon the earth-carrier and upon the first attacker, the air-carrier. They continue to wound each other till they succumb to their wounds.

If the brothers love each other, their love for each other increases, but when their love changes into hate, this hate becomes fiercer and fiercer, until they kill each other; this can be compared with very sweet honey which, in a too warm stomach or in a sick liver is turned into the most bitter gall.

Kill the living one, but do it in such a way that you can revive him again, otherwise his death has not been of any use. For death



will reveal him; when he rises, death, darkness and waters flee from him; as Hermes testifies, the Dragon that stood guard over the abysses will flee from the sun-beams and our son will live and the dead king will come out of the fire (embl. xxiv). Belinus, in his metaphor in the *Rosarium*,<sup>1</sup> says the same, when he states: "And this happens, when you have taken me partly out of my nature, and my wife out of hers and after you have killed these natures and we are raised by a new and incorporeal resurrection, so that after that we cannot die any more".

#### SOURCE OF THE MOTTO

*Opus Mulierum et Ludus Puerorum*, in: *Art. Aurif.*, II, 197-198 (wrongly numbered 297 instead of 197):

"Item Arnoldus iterum de effectibus quatuor elementorum dicit. Aer nutrit ignem sicut aqua terram nutrit. Nam ignis vivit ex ære, et ær vivit de elemento aquæ, et aqua de elemento terræ. Fige ergo terram et aquam ut ær possit figi in aquam, quoniam si aquam bene occidisti, omnia elementa occidisti, et mortua sunt".

"In the same way Arnoldus repeatedly speaks of the effects of the four elements. Air feeds fire, as the water feeds the earth. For fire lives on air, and air on the element water, and water on the element earth. Weld earth and water together, so that the air can be bound in the water, because, if you have killed the water properly, you have killed all elements and they are all dead".

#### COMMENTARY

The four men symbolize the four elements, characterized by earth, water, air and fire, which they keep in their hands. Their relationship is seen in the fact that of the four properties dry, warm, moist and cold each of the brothers has two properties, by which they are mutually united, or are each other's opposites. Fire and water are two opposites, but may be transformed into each other through

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<sup>1</sup> Belinus-metaphor in the *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 412-415. Belinus describes the coming about of the Philosophers' Stone in the form of the death and resurrection of the king; a motif, which has been applied by Maier in many variants, amongst others in the embl. xxiv, xxviii, xxxi, xlvi.

the intermediary of air or earth. If one of the properties is killed, a chain reaction is brought about, by which all properties and consequently all elements are killed and return to primary matter.

In the discourse Maier also connects emblem XXI with this emblem. In emblem XXI he stresses the science of geometry, which is a key to the opus alchemisticum.

At the end of the discourse of emblem XIX Maier advises that the four brothers should be killed in such a way that they can be revived. Thereupon he compares the death and resurrection of the elements, which are symbolized by the four brothers, with the dragon and the king:

"For death will reveal him; when he rises death, darkness and the waters flee from him; as Hermes testifies, the Dragon that guarded over the abysses will flee from the sun-beams and our son will live and the dead king will come out of the fire". At the same time this transfers the meaning of death and resurrection of the elements to emblems XIV and XXV, two emblems dedicated to the process in the shape of the death and resurrection of the king, like emblem XXIV, in which the king, risen from death, appears from the fire, or, as emblem XXXI, in which the Chemical king is in imminent danger of perishing in the waters, in the aqua pontica, one of the forms in which Mercury appears, or, as in emblem XXVIII, where Duenech is saved from destruction through melancholy, or, as in emblem XLVIII, where the Merlini-king is saved from the waters.

Maier ends the discourse (XIX) with a phrase from the Belinus-metaphor out of the *Rosarium Philosophorum*, from which it appears that this death and resurrection also refer to the death and resurrection of the human soul:

"..... et postea occidatis naturas et suscitamur resurrectione nova et incorporali, eo quod postea mori non possumus",

"..... and after that you kill the natures and we are raised by a new and incorporeal resurrection, so that we cannot die any more".

The Belinus-metaphor, indicated by Maier, is a monologue by the son of the Sun, about his death and resurrection. First he was killed by this slave Saturn (analogous to embl. XII) and cut apart (analogous to embl. XLIV). His limbs were collected by his mother (analogous to Isis from embl. XLIV). After his resurrection he is equal to the Sun and says: "Pater meus Sol dedit mihi potestatem

super omnem potestatem, et induit me vestimento gloriæ, et totus mundus me quærit". "My father the Sun gave me power over all power, and clothed me with the cloak of glory, and the whole world seeks me".<sup>2</sup>

He who solves this secret of killing and reviving the elements, a secret so unspeakable that the alchemists tried to elucidate it in numerous ways, "habet istud Dei donum, mundi habet dominium: quoniam ad finem divitiarum pervenit, et naturæ vinculum confregit".<sup>3</sup>

### EMBLEM XX

(fig. 20)

#### MOTTO

Nature teaches nature, in order to fight the fire.

#### EPIGRAM

The all-devouring flame pushed fiercely forward like a Dragon,  
In order to destroy the exceptional beauty of the virgin;  
And after that she, all in tears, was accidentally seen by a man,  
The latter was ready to help her.

<sup>2</sup> This motif from the Belinus-metaphor returns in embl. xli, in the discourse of which Maier quotes a fragment from the Belinus-metaphor and puts the Son of the Sun on a par with Adonis, whom he represents in the picture of emblem xli.

<sup>3</sup> Also Belinus-metaphor. It concludes with the words:

"Et in hoc completur preciosum dei donum, quod est super omne mundi scientiarum arcanum, et incomparabilis thesaurus thesaurorum. Quia ut dicit Plato: Qui habet istud Dei donum, mundi habet dominium; quoniam ad finem divitiarum pervenit, et naturæ vinculum confregit. Non tamen ex eo quod habet potestatem convertendi omnia corpora imperfecta in purissimum solem et lunam. Sed magis ex eo, quod hominem et quodlibet animal præservat in conservatione sanitatis"; "And herein the precious gift of God is fulfilled, which surpasses any secret of the world of sciences and is an incomparable treasure among treasures. Because—as Plato says—he who possesses that gift of God, has sway over the world: because he attains the utmost wealth and breaks the bonds of Nature (Just like Solomon in his wisdom). And nevertheless this does not only take place because he has the power to transform all imperfect substances into the purest gold and silver, but rather because he watches over man and each living being in the preservation of his health". After this a detailed exposition follows about the diseases which can be cured by the Philosophers' Stone or the elixir of life and how much time and what quantity of the Elixir is required for this.

Protecting her immediately with his shield he turned on the enemy,  
And taught her to despise such great threats with fortitude.

### SUMMARY OF THE DISCOURSE

It is a common symbol of the philosophers, when they say: "Nature is led, taught, ruled, and dominated by Nature, as a pupil by his teacher and as a daughter by her mother". This also becomes evident in daily life: children are educated by their parents. Pliny wrote about nightingales that one trains the other to sing, that the one observes, imitates, and surpasses the other or regrets that it is surpassed by the other; sometimes one of them may fall dead in the middle of a song, having torn its throat in a singing-competition. Thus we also see how all species of birds teach their young how to fly and already begin their teaching when the young ones have not yet any feathers, so that the young have not only the natural inclination to fly but also obtain the art or the habit of flying, although only Nature has given them the power and the organs to do so, and without these the exercise would have no foundation. Thus the horse teaches its foal how to neigh, the dog teaches its puppies how to bark and the fox teaches the little fox tricks and there is no being alive in Nature that does not educate its young, that is to say there is no nature which does not educate the other nature.

In the vegetable world we do not find this arrangement, but also there the helping hand of man is seen to be of great importance; thus weeds may be removed from among the ripening corn and thus the young tree may be bent into another direction during its growth.

Thus in the world of the metals and of philosophical subjects one nature holds the other nature in the fire and protects the other nature, as is especially well-known to the natural philosophers. Thus, for instance, iron comes to the assistance of gold and silver like a nurse, when it is found in the mineral combined with cadmium, arsenic and antimony, which are deadly for gold and silver. Iron comes to the assistance of gold and silver, when it is thrown into the fire to burn the minerals. In the same way iron is saved when it has to be hardened into steel, by the pebbles of the beach, which prevent the iron from being burnt. Some throw pounded glass

crystals or glass gal over metal dust, when they want to make it liquid, in order to prevent it from being burnt. For this purpose the Philosophers use Eudica, of which Morienus<sup>1</sup> says that it is glass gall and that it must be sought in the glassvessel. Fire consumes the body, but if Eudica is added, it remains safe from burning. This is nature, which teaches nature to fight against the fire, and to grow accustomed to the fire; this is the master teaching his pupil and when you come to consider it, it is the queen reigning over her subjects, and the daughter ennobling the mother; it is the red slave who marries his odoriferous mother and produces a progeny nobler than the parents themselves; this is Pyrrhus, the red-haired son of Achilles with gold clothes, black eyes and white feet; it is the knight, armed with shield and sword, who marches against the dragon in order to save the virgin, unhurt, from the claws of the dragon; she is called Albifica or Beya or Blanca; this is also Hercules, who liberated Hesione; this is Perseus, who set Andromeda free from the seamonster by showing the Medusa's head and who married her after releasing her from her fetters; this can, moreover, be compared with M. Curtius Mucius Scævola, Horatius Cocles and Manlius Capitolinus, who saved their city from dangers as if it concerned their mother. For this is the ratio and the method of Nature, which aims at perfection in order to derive the one from the other, the more perfect from the less perfect. It does not do so abruptly, but gradually. Moreover, Nature does not do this entirely by itself, but with the help of substitutes to whom it gives power over life and death, i.e. the power of forming other things. An example of this is the coming into existence of a man; for this Nature needs a long time, about ten months, and according to Aristotle, it first makes the heart, as a substitute for Nature, and as the most important organ, which afterwards makes other organs, necessary for feeding, living, the senses and the procreation; the heart forms and perfects them and puts the vital spirits into them by contracting and expanding, as long as it is not prevented from doing so by illness or violent damage. In this way one nature teaches the other nature and you have to observe this well and imitate it as an example for the Philosophical Work.

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<sup>1</sup> Morienus, *Liber de Compositione Alchemiae*, in: *Art. Aurif.*, II, 47.

## SOURCE OF THE MOTTO

Based on: *Turba Philosophorum*, in: *Art. Aurif.*, I, 8, 9, 10: "Natura natura lætatur, et naturam continet, et natura naturam vincit et superat".

"Nature rejoices in nature, nature contains nature, nature conquers and dominates nature" (pronouncement taken from Pseudo-Democritus, *Physica et Mystica*, printed in M. Berthelot, *Coll. des Anc. Alch. Gr.*).

"O, natura fortis, naturas vincens et superans, suasque naturas gaudere faciens. Hæc est illa natura specialis et spiritualis, cui Deus posse dedit supra ignis violentiam".

"O powerful Nature, which conquers and dominates natures, and which makes them rejoice in their natures. This is the special and spiritual nature to which God granted that it might be more powerful than the violence of the fire".

## COMMENTARY

In the discourse Maier describes how one nature teaches the other nature, how old birds teach the young birds to fly. Nature and exercise make the one nature guide the other nature and bring about that the one nature is finally surpassed by the other. So development and improvement are brought about. In the field of metals and philosophical subjects it is the intention that they learn how to stand and endure the scorching heat of fire. In doing so the one substance protects the other substance against burning. As an example of this Maier mentions the function of iron in preventing gold and silver from being burnt, if it occurs in a state where it is bound in cadmium, arsenic or antimony. Likewise iron which is to be hardened into steel, is safeguarded against burning by the action of white pebbles, and some people add pounded glass crystals or glass gal to metal powder which has to be melted, in order to prevent the metal powder from being destroyed by the violent fire.

The agent which the philosophers use for this purpose is "eudica"; here Maier appears to base himself on Morienus, *De transmutatione Metallorum*, the relative passage of which reads: "For by the heat of the fire in the quick body of the serpent, by a hasty burning the matter itself is consumed. But if to this you add eudica, i.e. glass gal, the bodies are changed into earth and are safeguarded against

any combustion; for eudica helps the bodies to retain their souls (that is to say solid matters retain their volatile gases in spite of the heat of the fire)".<sup>2</sup> One nature helps the other nature by teaching how to endure the fire. This is the armoured knight, who teaches the vulnerable girl to despise the great threats of the fire with fortitude, as the epigram puts it. In the discourse Maier puts her on a level with Beya or Blanca; that is the personification of the volatile Mercury and goes back to the *Visio Arislei* belonging to the *Turba Philosophorum*, in which the union of Sulphur and Mercury is represented in the shape of the pair of love Thabritius and Beya.<sup>3</sup> Emblem xx also refers to this.

Hardening in the fire occurs in another shape in embl. xxxv, in which Triptolemus and Achilles are hardened in the fire, when it is night, and nursed by mother's milk, when it is day.

Maier has, it is true, taken the motto for his embl. xx from the *Turba Philosophorum*, but the origin of the pronouncements about the influence of the one nature upon the other nature goes back to Greek-alchemical writings; in the work of Pseudo-Democritus, *Physica et Mystica*, a paragraph always ends alternately with "Nature rejoices in nature", or "nature conquers nature", or "nature dominates nature".<sup>4</sup>

### EMBLEM XXI

(fig. 21)

#### MOTTO

Make a circle out of a man and a woman, out of this a square,  
out of this a triangle,  
make a circle and you will have the Philosophers' Stone.

<sup>2</sup> Morienus, *De Transmutatione Metallorum* in: *Art. Aurif.*, II, 47: "Nam calore ignis in corpore cito serpente, festina combustione ipsum corpus consumit. Nam si eudica eis apponitur, ipsa corpora in terram mutata, ab omni combustione curabit. Nam corpora postquam suas iam non retinent animas, cito comburuntur. Eudica—fex vitri—quidem bene omnibus corporibus convenit nam ea vivificat et aptat, et ab omni combustione defendit".

<sup>3</sup> *Visio Arislei*, in: *Art. Aurif.*, I, 160-161; see bibliography under *Visio Arislei*.

<sup>4</sup> Text and translation of Democritean writings in M. Berthelot, *Coll. des Anc. Alch. Gr.*: ἡ φύσις τῆ φύσει τέρπεται, ἡ φύσις τὴν φύσιν νικᾷ, ἡ φύσις τὴν φύσιν κρατεῖ.

## EPIGRAM

Make a circle out of a man and a woman,  
 From which a quadrangular body arises with equal sides,  
 Derive from it a triangle, which is in contact on all sides with a  
 round sphere:  
 Then the Stone will have come into existence.  
 If such a great thing is not immediately clear in your mind  
 Then know, that you will understand everything, if you under-  
 stand the theory of Geometry.

## SUMMARY OF THE DISCOURSE

According to Plato the notions which form the foundations of art and science, are imprinted on the human mind, and all tenets can be understood by recollection and repetition. In order to prove this he advances, as an example, a totally uneducated, illiterate boy, to whom, by asking questions, he taught geometry in such a way that in the end he could answer all questions rightly and penetrated into the kernel of this difficult science. From this Plato deduced that each science can be recalled to mind exclusively by recollection and need not be learned from its foundations. Plato here referred to his idea about the *Magnus Annus*, according to which way of thinking, after a lapse of time of 48000 solar years, the same persons, objects and events would exist again. It is clear to everybody that there is no fundamental truth in this. We do not deny that there are some sparks of knowledge in us, but this is merely potential; they have to be put into operation by exercise and education.

Other people ask what is the origin of arts and sciences, if man has not invented them; do they come from heaven? or are they handed down by the gods of former peoples? To this I answer that it makes a difference whether one says that there lies a large quantity of red-hot coal, which is covered by ashes, the heat of which—after the ashes have been removed—is sufficient to cook a meal and to warm oneself, or whether one says that only some sparks are hidden, which, before they are suitable for cooking or warming, have to be protected, fanned and strengthened by tinders, with diligence, skill and good care, because otherwise they go out and become cold ashes. The first example corresponds to Plato's view the latter to that of Aristotle. *Ratio* and *Experientia* correspond



to Aristotle's doctrine; fantasy and imagination to that of Plato.

Why was it engraved over the entrance of Plato's school that anybody without knowledge of geometry had no admittance there, if Plato alleged that children already knew geometry? Do adults differ from children? or have they forgotten the knowledge of their youth? That is not very probable; for very young animals, even if they are only just born, are on their guard against the dangers of fire, slopes etc., taught in this by Nature, but a young human being is not, unless he has hurt himself or has burnt his finger in the flame of a candle, like a fire-fly which burns its wings and falls down. Why do a bee, a fly and a gnat not throw themselves into the fire during their swift flight, though they do not know from experience that such is dangerous for them? Because Nature taught it to them but not to a newly born man.

If Geometry is innate in children and is easily admissible for them, as Plato asserts, how is it that Plato himself did not teach the quadrature of the circle, so that even his pupil Aristotle asserted that the squaring of the circle could be known, it is true, but was not yet known to him?

The Natural Philosophers, however, did know the squaring of the circle; this appears from their recommendation to change the circle into a square, and the square into a triangle and the triangle into a circle. By the circle they mean a simple body and by the square they mean the four elements. This means that four elementary colours should be separated from a simple body, and this will be the square. This square is physical and corresponds with nature. It is of more use to the Government and more illuminating to the human mind than the mathematical or purely theoretical square which deviates from the matter. For the latter one a surveyor must calculate the system of laws for solid bodies and fit them for practical application; starting from the circumference of sphere and cube he must calculate their capacity, and, starting from the capacity, calculate their circumference, and change a sphere into a cube of the same content etc.

In the same way the Philosophers want the square to be changed into a triangle, that is to say in body, spirit and soul, the three of which appear in three colours preceding the red colour, namely the body or the earth appears in the black colour of Saturn, the

spirit as if it were the water, appears in the whiteness of the moon, and the soul, or the air, appears in the yellow colour of the sun. With that the Triangle is completed, but the latter in its turn should be transformed into a circle, which means that it has to be transformed into unchangeable redness. And by this action woman turns into man and they become a unity, and the sixth number, the first of the perfect numbers, is perfected by One, and two is perfected when it has returned to monad, in which there is rest and eternal peace.

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 278:

"Philosophus: Fac de masculo et foemina circulum rotundum, et de eo extrahe quadrangulum, et quadrangulo triangulum; fac circulum rotundum et habebis lapidem philosophorum".

"The philosopher says: Make a circle out of a man and a woman, derive from it a square, and from the square a triangle: make a circle and you will have the Philosophers' Stone".

#### COMMENTARY

In this emblem the whole development of the alchemical process is included. Man and woman represent the contrasts; they are the sulphur and mercury from which the Philosophers' Stone originates; they are the light and the darkness of the cosmos; they are spirit and matter. From them the alchemist should make a circle and from that circle a square. That is to say, the alchemist should reduce the contrasts to the *materia prima*, the primary matter, to chaos, and from here spring the four elements, represented by the square. From the four elements the *tria prima* arise, or spirit, soul and body, which Maier also mentions in the epigram of the frontispiece of the *Atalanta Fugiens*; these *tria prima* are represented by the triangle of embl. XXI. From this triangle the Philosophers' Stone or the circle results, as Maier says in the motto. This is the Unity of the Universe. In that cosmic Unity the human soul reverts to its origin, to God. In this embl. XXI Maier used geometrical figures as a symbol of the connection between the processes in Micro- and

Macrocosm. This theme returns in more detail in his writing *De Circulo Physico Quadrato*, which was published at Frankfort in 1616. On the titlepage of the latter a circle is to be seen with inscribed square; in the angles of the square are inserted the elements and their properties. In this book Maier describes—within the framework of the correlation between Microcosm and Macrocosm—the connection between the human heart as centre of the human body, the curing power of gold as centre of the metals, and the sun as centre of the solar system. In chapter VII Maier calls Nature and everything which has been created, the Book of God.

In the Middle Ages the quadrature of the circle was looked for with the same perseverance as the alchemical rubedo; in alchemical literature both problems fused. Blackness and redness in alchemy are similar to the contrast mercury-sulphur or woman-man. Lead and gold are the beginning and the end of a circular process. Thus Zimon in the *Turba* says: "And may you know that the secret of the work consists of man and woman, *i.e.* of an active and a passive principle". And a little further on: ". . . . . Moreover, I say that redness is to be found in the lead".<sup>1</sup>

The motifs of circle, double circle, square and triangle, which Maier uses in embl. XXI, are not only rediscovered in the *Rosarium Philosophorum*, the source of the motto, but also in Hermes Trismegistus, *Tractatus Vere Aureus*. On account of its importance this writing was more than once commented upon by the alchemists; the quotations which here follow also throw a light on the motifs used by Maier:<sup>2</sup>

<sup>1</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 10:

"Zimon ait: Et scitote, quod secretum operis ex mare et fœmina constat, hoc est agente et patiente." On the same page somewhat further on: ". . . . . duæ illæ naturæ nihil aliud sunt quam album et rubeum." Also on the same page: ". . . . . Ad hæc insuper dico, quod in plumbo rubedo sit".

<sup>2</sup> Hermes Trismegistus, *Tractatus Vere Aureus, de Lapidis Philosophici Secreto in cap. 7 divisus, nunc vero a quodam Anonymo Scholiis illustratus*, in: *Theatr. Chem.*, IV, 608-612: about the circulus simplex: "Ex quo colligitur, hunc eundem Mercurium esse principium, medium et finem operis".

About the circulus duplex: "Gemina circuli descriptio indicat duplicatum illum Bernhardi Trevisani Mercurium, agens videlicet et patiens, sive Sulphur et Mercurium. Ambo enim Mercurii eiusdem sunt originis, eiusdemque naturæ et essentia, quod vel ex utriusque forma circulari facile innotescit. Nihil autem refert, quod interior minor appareat exteriori. Majoris enim perfectionis ac præstantia id tantum signum est. Res enim quo apparentior,

○ this is the simple circle, the "circulus simplex", which represents Mercurius Philosophorum, in the stage of materia prima; the circle is simple, without beginning or end. The author who comments on Hermes Trismegistus finally says about the simple circle:

"From which it is concluded that the same Mercury means the beginning, the middle as well as the end of the work".

⊙ this is the twofold circle, the "circulus duplex", representing the passive and active principle (equal to the man and the woman in Maier's emblem). The commentary on the circulus duplex reads:

"The double description of the circle points to that twofold Mercury about which Bernhardus Trevisanus speaks, namely the active, working Mercury and the passive, suffering Mercury, or Sulphur and Mercury. For both Mercuries are of the same origin, of the same character and essence, which is already easily derived from the circular form of both of them. Here it is not of importance that the inner circle is smaller in its appearance than the outer one. For just this is a sign of perfection and excellence. For as something becomes more visible, it also becomes proportionately more volu-

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eo quoque corpulentior: quo vero abstrusior et abditior, eo spiritualior, perfectior et nobilior existit. Minor autem occultatus in majorem agit, eumque sibi assimilat".

About the triangle: "Eadem est utrobique horum ternorum triangulorum significatio. Sicut enim corpus et anima: sal et sulphur non possunt invicem conjungi, et per minima uniri, nisi mediantibus spiritu et Mercurio: sic quoque Luna et Sol procreare non possunt sobolem sibi similem, nisi mediante Mercurio, qui loco seminis elicitur ex amborum corporibus, inque terræ centro tanquam proprio vase digeretur et perficitur. Hoc autem centrum est in quovis triangulo vel punctum illud medium, vel numerus unarius, vel circulus iste medius. In secundo vero circulo observanda quoque est numerorum multiplicatio denaria. Non enim fit progressus ab unario ad centenarium et millenarium, omnium numerorum ultimum et perfectissimum—numerato enim millenario, non datur alius numerus: sed per hunc fit progressus in infinitum—nisi per denarium. Nam, ut ait author libri, qui inscribitur Aurora Consurgens cap. 2. Decem in Decem respondent".

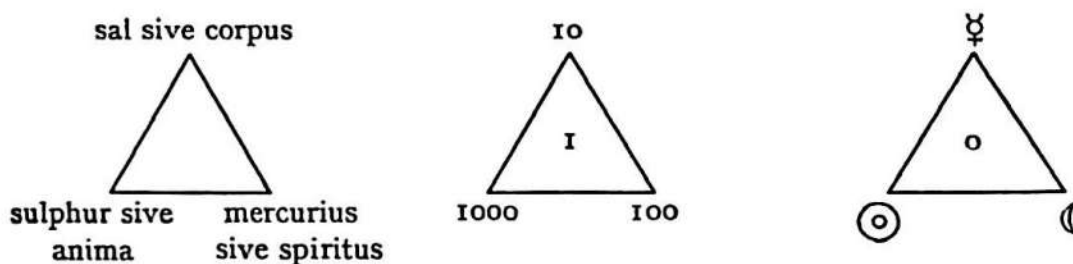
About the square:

"Recte igitur Aristoteles Chymicus ait: Divide lapidem tuum in quatuor elementa, rectifica ea, et conjunge in unum, et totum habebis magisterium. Hoc unum, in quod redigenda sunt elementa, est circulus ille exiguus, centri locum in quadrata hac figura obtinens. Est enim is mediator, pacem faciens inter inimicos sive elementa, ut convenienti amplexu se invicem diligant: Imo hic solus efficit quadraturam circuli, a multis hactenus quæsitam, a paucis vero inventam. Radiis enim suis ferit omnes elementorum angulos, et longa circumrotatione angularem hanc quadraturæ formam vertit in circularem sibi conformem".

minous and corporeal; however, as something becomes more hidden and out of sight, it is also proportionately more spiritual, more perfect and more noble. The smaller circle, however, which exists in a hidden state, acts upon the larger circle and makes the larger one equal to itself".

So the invisible reality affects the visible reality, till the Philosophers' Stone comes into existence, that is to say—to use the terms of the epigram of Maier's first emblem from the *Atalanta Fugiens*—till "The unborn child, which lies hidden in the womb of the North wind, will rise, alive, to the light". In the discourse of emblem 1 Maier himself connects it with geometry, by which an interaction becomes clear between emblem 1, based on the *Tabula Smaragdina* and the emblem XXI, which is based on the science of geometry, in order to disclose the secrets of life and the cosmos in that way.

After discussing the *circulus simplex* and *circulus duplex* the writer who comments on Hermes Trismegistus' *Tractatus Vere Aureus* goes on to consider the threefold triangle:

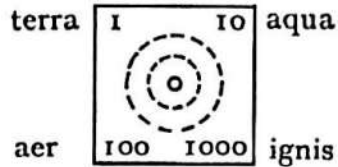


To these figures the following text is added:

"The meaning of each of these three triangles is the same. For just as body and soul, salt and sulphur cannot be bound to each other and penetrate into each other's smallest parts, unless by intermediary of the spirit and Mercury respectively, neither can Luna and Sol produce a posterity identical with them, except by the intermediary of Mercury, which is separated from both their bodies instead of seed and thrives and becomes perfect in the centre of earth as if it were a womb belonging to it. In any triangle this centre is either the centre of triangle, or the number one, or that circle in the middle. In the second triangle attention should be paid to the tenfold multiplication of the numbers. For no development of the unit into a hundred or a thousand takes place except by means of the tens; and the number thousand is the most extreme and perfect

of all numbers, for when you have counted the number thousand, you have no other number any more, but you count on with thousands indefinitely".

As fourth subject the square is discussed as a secret of the Philosophers, about which the commentator says:



"Aristotle the Chemist rightly says: Divide your stone into four elements, arrange them and join them into a unity, and you will possess all the mastership. This unity, to which the elements must be reduced, is that small circle in the middle of the square in the sketch appended. For this small circle is the mediator that makes peace between enemies, that is between the elements, so that they love each other in united embrace. For only this brings about the quadrature of the circle, which was sought by many until now, but was only found by a few. For from its own radiations it produces all the angles of the elements and by a prolonged revolution it changes this angular form into the form of a circle, identical to it in form".

These quotations illustrate what Maier means when he says in the last line of his epigram: "Then know that you will understand everything, if you understand the theory of Geometry". The alchemists, however, wanted to lay down the connection between alchemy and geometry in every detail and affix a numerical value to each part of the alchemical process. This confused the alchemists themselves; thus the author of the *Aurora Consurgens*, speaking about Geometry and Arithmetic in connection with the alchemical work, complains: "To each part numbers are attached, but in this the alchemical authors are not of one opinion. Some speak of months, others of years as the time in which the alchemical opus may be achieved, but one has to go to work very exactly not to be led astray by such divergent opinions".<sup>3</sup>

The connection the alchemists make between mathematics and natural science is as old as science itself. Pythagoras tries to prove the connection between musical intervals, numbers and the geo-

<sup>3</sup> *Aurora Consurgens*, in: *Art. Aurif.*, I, summary of p. 209.

metrical treatment of the motion of the celestial bodies; astronomy was the geometry of heaven. Under the influence of Pythagorean-Platonic ideas mathematical conceptions keep exercising a strong influence on natural sciences far into the 17th century. For instance, what Galilei thinks about the function of mathematics in natural science appears from his words in *Il Saggiatore* (1623): "Philosophy is written in that big book which lays permanently open before our eyes. But this book cannot be understood if one does not first learn to understand the language and learn to read the letters in which it is written. It is written in the language of mathematics and its characters are triangles, circles and other geometrical figures. If one does not know them, it is impossible for man to understand a single word of it; he then wanders in a dark labyrinth".<sup>4</sup> Kepler says it yet more clearly; he considers the human spirit to be God's immaterial image and Nature to be God's material image. When man goes into mathematics he follows, step by step, the thoughts of God, which are materialized in Nature, and the human power of exercising natural science is based upon this.

Beside the connection between alchemy and geometry Maier stresses the point that the meaning and the final object of the alchemical process consists in returning to the monad (end of the discourse) in which is rest and eternal peace. The last two phrases of the discourse agree in meaning with the quotation I have cited about the square, from the commentary on the *Tractatus Vere Aureus*, in which it is said that, by the radiations of the small circle in the square, or the mediator between the elements, the angular form of the square is changed into a circle, identical in shape with the mediator. Maier points to the final stage of the process in various fields: the triangle becomes a circle, and with that the colour of the tinctura rubea is reached; the woman changes into a man and with that the area of stress between the contrasts is removed; the sixth number is perfected by one, and here we have to think of the value mediæval man attached to numbers in connection with the Christian faith. Thus the number six brought to mind the six periods of the world and the six stages of man's life, namely from Adam till Noah (infantia), from Noah till Abraham (pueritia), from Abraham

<sup>4</sup> E. J. Dijksterhuis—R. J. Forbes, *Overwinning door gehoorzaamheid, geschiedenis van natuurwetenschap en techniek*, Zeist, 1961, II, 8.

till David (adolescentia), from David till the Babylonian Captivity (iuventus), from the Babylonian Captivity to the incarnation of Christ (virilitas), from Christ till the end of the world (decrepitas); in this sixth period of the world, however, according to that way of thinking, the completion was reached by Christ's work of redemption which took place on the sixth day of the week, in the sixth hour.<sup>5</sup> Probably Maier alludes to this when, at the end of his discourse, he includes the sixth number, as the first of the perfect numbers, which becomes perfect by One (Christ), in the final stage of the opus alchemisticum.

Finally Maier mentions the number two, which returns to the monad. As regards the monad, here Maier undoubtedly had in mind the writing of John Dee, whose *Monas Hieroglyphica* is devoted to this theme.<sup>6</sup>

The return to the monad is founded on a long tradition in Hermetic literature; this motif is found in the writing *Poimander* from the *Corpus Hermeticum*.<sup>7</sup> The writings from the *Corpus Hermeticum* which are attributed to Hermes Trismegistus, originated in the first centuries of this era; they are eclectic and based on Aristotelian and Neo-Platonic thoughts, mixed with data from Jewish and Iranian religious sources. The *Poimander* gives a revelation in the cosmogenic, anthropological and eschatological fields, and describes the descent of man to matter and his ascent through the seven spheres, ending in God. The *Poimander* considers man to be a double being, which is earthly as well as divine. The nature of the divine action in creation brings us to know God as an immaterial Unity. God gave intelligence to man, that man, by intellectual contemplation of the divine work, might come to know his Creator. They who, in consequence of this intellectual contemplation and by ascetism (to which alchemists and Rosicrucians draw the attention all the time), gain an insight into the Good, ascend to the One and Only (God). About the monad the following passage appears:

<sup>5</sup> J. J. M. Timmers, *Symboliek en Iconographie der Christelijke Kunst*, Roermond, 1947, p. 814-815, art. 1924.

<sup>6</sup> John Dee (1527-1607), alchemist, astrologer, magician and mathematician; he enjoyed the protection of Queen Elizabeth. His *Monas Hieroglyphica* (ed. pr. at Anvers 1564) is printed in: *Theatr. Chem.*, II, 192-215.

<sup>7</sup> Text edition and translation of A. D. Nock and A. J. Festugière, *Corpus Hermeticum*, Paris 1945-1954, 4 vols.



"Now the monad, which is the origin and root of all things, is present in all things, as root and origin. For nothing exists without origin. As regards the origin itself, it has risen out of nothing but itself, as it is essentially the origin of all other things. As origin the monad contains each number, without being included in a single number. The monad produces each number, without being produced by any other number. In fact everything that is produced is imperfect and divisible and liable to expansion and contraction; and nothing of that nature achieves perfection. And that which is liable to expansion is increased by the monad, but perishes because of its own powerlessness, when it no longer has the power of keeping the monad. Now this, o Tat, is the image of God, which I have drawn for you according to my best powers; If you consider it accurately and bring it to mind with the eyes of your heart, then, believe me, my child, you will find the way which leads to the things above or, more properly speaking, the image of God itself will show you the way. For contemplation has something peculiar and takes possession of those who have already at a former time been absorbed in contemplation and draws them to it, just as—as it is said—a magnet attracts iron".<sup>8</sup>

### EMBLEM XXII

(fig. 22)

#### MOTTO

When you have obtained the white lead, then do women's work,  
that is to say: COOK.

#### EPIGRAM

Whosoever wants to achieve much with little trouble,  
Should throw snow in Saturn's black face:

<sup>8</sup> A. D. Nock and A. J. Festugière, *Corpus Hermeticum*, vol. I, p. 53, paragraph 10-11.

10) „ἡ γὰρ μονάς, οὔσα πάντων ἀρχὴ καὶ ῥίζα, ἐν πᾶσιν ἐστὶν ὡς ἂν ῥίζα καὶ ἀρχή. ἄνευ δὲ ἀρχῆς οὐδὲν, ἀρχὴ δὲ ἐξ οὐδενὸς ἀλλ' ἐξ αὐτῆς, εἰ γε ἀρχὴ ἐστὶν τῶν ἐτέρων. μονὰς οὔσα οὖν ἀρχὴ πάντα ἀριθμὸν ἐμπεριέχει, ὑπὸ μηδενὸς ἐμπεριεχομένη, καὶ πάντα ἀριθμὸν γεννᾷ ὑπὸ μηδενὸς γεννωμένη ἐτέρου ἀριθμοῦ.

11) Πᾶν δὲ τὸ γεννώμενον ἀτελὲς καὶ διαιτερόν, καὶ αὐξητὸν καὶ μειωτόν, τῷ δὲ τελείῳ οὐδὲν τούτων γίνεται. καὶ τὸ μὲν αὐξητὸν αὐξάνεται ἀπὸ τῆς μονάδος, ἀλίσκεται δὲ ὑπὸ τῆς αὐτοῦ ἀσθενείας, μηκέτι δυνάμενον τὴν μονάδα χωρῆσαι.

αὕτη οὖν, ὦ Τάτ, κατὰ τὸ δυνατόν σοι ὑπογέγραπται τοῦ θεοῦ εἰκὼν ἣν ἀκριβῶς εἰ θεάσῃ καὶ νοήσεις τοῖς τῆς καρδίας ὀφθαλμοῖς, πιστευσόν μοι, τέκνον, εὐρήσεις τὴν πρὸς τὰ ἄνω ὁδόν. μᾶλλον δὲ αὐτὴ σε ἢ εἰκὼν ὀδηγήσει. ἔχει γάρ τι ἴδιον ἢ θεὰ τοὺς φθάσαντας θεάσασθαι κατέχει καὶ ἀνέλκει, καθάπερ φασὶν ἡ μαγνητικὸς λίθος τὸν σίδηρον."

And the whitest material of lead will fall to you,  
 After which only women's work remains.  
 Then you should cook, like a woman, who puts her pans on the fire,  
 But take care that the Truta dissolves in its own fluid.

#### SUMMARY OF THE DISCOURSE

Just as hermæ in a three-forked road show the way to straying travellers by their inscriptions, so in philosophical books with their allegories and obscure pronouncements, sharp phrases occur in different places, which serve as a signpost for the searcher. The motto used here is one of them and its meaning is that from the Philosophic ore, lead has to be made, and that from this tin (stannum) is to be made, which Geber called white lead. Geber also tells us in what manner Saturn (lead) changes into Jupiter (tin) by washing it with Mercury (mercury).

On these grounds his words would also be believed, when he speaks about the place where the philosophic cows should be pastured. According to Arnoldus in his *Novum Lumen*,<sup>1</sup> chapter 1, those who wander about the mountains do not know these animals. Moreover they are sold cheaply. On the tops of the mountains, even in summer, there is sometimes snow and fog, with which the black lead can be washed white. In the valleys ice-crystals as hard as stone are found, which, mixed with tallow and oil, yield an expedient for making the skin white.

Especially clear, liquid Mercury (mercury) which is well prepared, dispels the dark-birth-marks of Saturn (lead) and puts it into the state of Jupiter (tin). By this, however, common lead or tin is not be understood, for the common metals have no place in the work of Nature. Lead (Saturn) is the father of all who love gold and is the first approach to the secrets (embl. XII). Thus Rhases in his *Epistola* says that the gates of wisdom are opened by Saturn (lead). After him comes Jupiter (tin), who dethrones and unmans his father, in order to prevent him from engendering more sons. Out of his phallus, which is thrown into the sea, Venus (copper) arises. From Jupiter, who is the lead made white, the other planets arise, like Mars (iron) from Juno. Further Mercury (mercury) arises from

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<sup>1</sup> Arn. de Villanova, *Novum Lumen*, in: *Art. Aurif.*, II, 500.

Maya, the daughter of the Atlas mountain, and Sol (gold) and Luna (silver), arise from Latona (embl. XI). The four last mentioned are born exclusively by woman's work or by cooking; for by boiling a ripening process takes place, in which the coarser parts are refined, as happens in the Philosophical Vessel, under the influence of Vulcan.

This cooking corresponds to the common cooking in its final aim but not in the procedure followed. Just as a woman, who cooks fish—that is to say removes superfluous moisture from the fish, when the fish has been dissolved in water and air,—so the Philosopher treats his subject: he destroys it and dissolves it in its own water, that is to say in the most caustic acid; after that he coagulates it and hardens it in the *vas hermeticum*, which has to be well closed, so that no vapour may escape, for in that case the philosophical subject would burn. The *vas* is the "*vas supra vas*", it is the philosophical vessel and it is the sweating-bath (from embl. XXVIII) in which the old man sweats (embl. IX).

Some people cook fish in the following manner: they use two well-closed pans, one on top of the other, putting the fish in the upper pan and the water in the lower one. When the pans are put on the fire, the vapour of the boiling water rises and the fish get cooked by the hot steam. Now this is the unsurpassed procedure of the Philosophers, namely softening what is hard, dissolving what is compact, making tenuous what is solid. For air is an imperceptible vapour, which ripens the fruits on the trees, cooks them, as it were, and brings them to perfection; this is not the work of coarse, cold water. It is the air, also, which dyes and colours the gold apples in the garden of the Hesperides (frontispiece). For, all things considered, the bubbling of boiling water, by which raw meat is cooked, is nothing else but making water thin and transmuting water into air vapour, as the bubbles consist of air, which has been locked up in the water and which easily escapes, as air returns to its own *sphaera* and the water returns to its own centre.

#### SOURCE OF THE MOTTO

*Turba Philosophorum*, in: *Art. Aurif.*, I, 10 or I, 92:  
 "Socrates . . . . . Nunc autem plumbi albi dispositionem monstravi, quo noto nihil aliud sequitur, quam Opus mulierum et Ludus puerorum".

"Socrates . . . . . Now, however, I have shown the systematical arrangement of the white lead, and when that is known, nothing else follows but women's work and child's play".

### COMMENTARY

The lead should be made white; this theme is already discussed in emblem III and XI. Maier writes in the discourse, that the philosophical subject should be treated in the same way as fish cooked by a woman; namely softening what is hard, dissolving and disposing of superfluous fluid—by boiling down—without the substance being burnt.

Maier has the example of the fish which he uses in the discourse and which also occur in the picture, in a tub in the foreground, with their heads pointing in opposite directions, in common with an emblem from Lambsprinck,<sup>2</sup> embl. I (*fig. 69*), the motto of which reads: "You must be observant of the fact and understand it in the right way that two fishes swim in our sea". They represent spirit and soul, swimming in the body: "Mare est Corpus, duo pisces sunt Spiritus et Anima". From the elucidation which Lambsprinck gives, the two fishes appear to personify the two opposites. The two fishes are essentially one. They have to be cooked until they are completely dissolved in the "sea", in Mercury or in the aqua pontica, till corpus, anima et spiritus form a unity. At the same time the representation of the two fishes is an allusion to the fishes as a zodiacal sign.<sup>3</sup> This was the sign of the zodiac in which a circular course was concluded. The alchemical source for this representation of fish is the *Visio Arislei*.<sup>4</sup>

<sup>2</sup> Lambsprinck, *De Lapide Philosophico Libellus*, Frankfort 1625, embl. I, fig. p. 7: "Animadvertite et recte intelligite Pisces duos in nostro mari natate".

<sup>3</sup> There exists an alchemical writing, which bears the zodiacal fishes in its title, namely Lucas Rodargirus, *Pisces Zodiaci inferioris: vel de Solutione Philosophica cum aenigmata totius Lapidis Epitome*, in: *Theatr. Chem.*, V, 723-762. The author's name is probably fictitious; the writing is dated 1563.

<sup>4</sup> *Aenigmata ex Visione Arislei Philosophi*, in: *Art. Aurif.*, I, 162, ænigma 2, "about the stone": "Est in mari nostro pisciculus rotundus, ossibus et corticibus carens, et habet in se pinguedinem, mirificamque virtutem: qui silenti igne coctus, donec eius humor pinguedoque prorsus rodatur et absumatur: postea fortissime teri debet, et aqua maris imbui, quousque lentescat: deinde per hebdomadam sepeliri: deinde assari, donec candescat.

"In our sea there is a little round fish, without bones and without a hard covering, inside it contains fat and a miraculous power; it should be cooked in a silent fire, till its fluid and fat are quite consumed; after that it has to be pulverized in a very powerful manner and imbued with sea-water, till it becomes tender; after that it has to be buried for a week. Then it has to be stewed dry, till it begins to get white. When it gets white and begins to become a sufficiently radiant white, its own fluid is given back to it, and then it is drenched in its own fluid. And when afterwards it has been stewed dry, until its colour becomes yellow, it becomes the "collyrium of the Philosophers": from the fish-eye<sup>5</sup> the secrets of the philosophers can be easily seen and understood".

This allegory contains the process of the Stone, beginning with dissolution and decomposition, followed by becoming white and yellow. The last line of the epigram has been taken from the allegory: "Make the truta (the fish, the trout) dissolve in its own fluid".<sup>6</sup>

The second and third lines of the epigram: "You should throw snow in the black face of Saturn and the whitest lead will fall to you", form a connection between the meaning of this emblem and the emblems XI and XII, about Latona and Saturn.

After the white lead, the red lead should follow as a final result of the process, as the discourse of emblem XI states: "plumbum rubeum, quod est operis initium et finis". The woman in the picture of emblem XXII is pregnant; the reason for representing the woman

Cumque candeat, et satis albescat, et eius aqua sibi reddita, et postea humore suo proprio imbutus: et demum post humoris imbibitionem quousque citrinus appareat, assatus, fit collyrium philosophorum: cuius liquore oculi liniti, arcana philosophorum facile possunt videri intelligique".

<sup>5</sup> For "oculi Piscium" see C. G. Jung, *Mysterium Coniunctionis, Untersuchung über die Trennung und Zusammensetzung der seelischen Gegensätze in der Alchemie*, Zürich 1955, I, 52 sqq.

<sup>6</sup> In comparing the alchemical process with the cooking of fish Maier chooses expressly the trout, because it was believed that gold was to be found in trout; thus Paracelsus says (*Congeries Paracelsicae Chemiae De Transmutationibus Metallorum*, in: *Theatr. Chem.*, II, 515):

"Nonnulli tandem in piscibus trutis nomine, per liquationem concrematis, aurum invenerunt, non alia de causa, nisi quia genus hoc piscium in fluminibus squamulas aureasque scintillas a torrentibus eo delatas, et non nunquam ex montibus defluentes, colligere ac devorare solitum sit, a natura doctum".

"Lastly some have found gold in fishes called trout, after having dissolved and burnt them; this is because this species of fish is naturally accustomed to swallow, in rivers, the small gold scales and sparks that have been taken there by swift-flowing brooks, which sometimes flow from the mountains downwards".

in this way is, that she is the personification of the "albedo", from which the "rubedo", the Lapis Philosophorum, originates. This appears from the following quotation: "Lapis . . . . mulier prægna dicitur: quia albedo habet intra se rubedinem, quæ in fine decoc-tionis extrahitur".<sup>7</sup>

So motto, epigram and picture appear to be based on alchemical examples.

### EMBLEM XXIII

(fig. 23)

#### MOTTO

It rains gold, while Pallas is born in Rhodes and while Sol cohabits with Venus.

#### EPIGRAM

It is a wonderful story—as Greece makes us believe—  
Which is celebrated by the inhabitants of Rhodes.  
They say that a gold rain descended from the clouds,  
When Sol was united in love with the Cyprian goddess:  
May then also, when Pallas breaks out of Jupiter's head,  
The gold descend into the retort destined to it, like a rainshower.

#### SUMMARY OF THE DISCOURSE

Only when taken in an allegorical sense does it make sense to speak about a gold rain. For in the clouds no gold-rivers or gold-shafts are found, from which it could be said that that gold rain would originate, and, moreover, gold is not light in weight, so that one could believe that it would rise, carried along with vapour. But when the statement is explained symbolically, these things are permissible. Just as Athena has been born from Zeus' head and as

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<sup>7</sup> David Lagneus, *Harmonia Chemica*, in: *Theatr. Chem.*, IV, 726. Lagneus says he is citing the *Margarita Novella*. The quotation from the *Margarita Pretiosa Novella* in: *Theatr. Chem.*, V, 638 appears to have a slightly different choice of words; an example of the way in which alchemical pronouncements change in the course of time. "Unde lapis, qui superius dictus est foemina, est mulier prægna, qui autem dictus est masculus, est stans in utero, paratus ad partum." In this quotation from the *Margarita Pretiosa Novella* the contrast male-female, as two aspects of the Stone, is more stressed.

Sol committed adultery with Venus, so this gold rain has fallen. If we take this emblem literally, nothing could be more nonsensical.

The isle of Rhodes was first called Ophiusa, after the enormous quantity of snakes occurring there, and after that, Rhodes was called after the flowering rosebushes, and afterwards it was also called Colossicola on account of the enormous statue of the Sun-God, which was considered to be one of the seven wonders of the world.

In connection with these things the ancient Philosophers saw a similarity between the isle of Rhodes and their work; as in the initial stage their matter, as raw mercury, may be compared with a snake, and after having been prepared and cooked, with the purple colour of a rose. So the Philosophers have gold rain, when Sol or Apollo commits adultery with Venus.

According to the historians the Sun-statue, erected by the inhabitants of Rhodes at great expense, was so big that ships with all their sails spread could pass through the feet of the statue. Chares Lyndius, a pupil of Lysippus, was the maker of the statue and it took him 12 years. After 56 years the statue was destroyed by an earthquake, but even lying on the ground it was still a wonder, for when Soldanus, king of Egypt, wanted to carry away the remainders of the statue when conquering Rhodes, he needed 900 camels to do so.

What the Sun is among the planets, the Philosopher says, is gold among the metals and gold most closely resembles the Sun by the similarity in warmth, colour, power and essence. That is why the gold rain arose in the legend as a symbol for the life-giving force of the Sun, part of which has been received by Venus. Venus has red cheeks and one may say that, when she is impregnated by Sol, Rhodes is the place of the birth of their son. This son is well-shaped, he is like the roses (of Rhodes), he is the Son of the philosophers, who attracts all eyes and all attention, who deserves love; it is not surprising that miracles happen when he is born. For he himself will be wonderful in all his deeds, and he will arouse the gold rain. He is the brother of Augias, the son of the Sun, who, out of his father's estate, possessed the cows, whose cow-house was mucked out by Hercules in one day. He is also the brother of Aeëtes, who had in his possession the golden Fleece, which Jason later captured.

About Pallas Athena, who was born without a mother from the

head of Jupiter, it is told that she was also called Tritona after the river in the neighbourhood of which her birth took place. The goddess is represented as the ruler over Wisdom, which is not said wrongly, as she was born from the head, that is from the seat of wisdom.

In memory of her birth in Rhodes, it rained gold. This may be compared with the strewing about of gold coins on high-days such as the crowning of a king or the birth of an heir. Thus it happened at the birth of Athena; for Athena is sapientia or sophia, who holds health in her right hand and wealth in her left (analogous to embl. xxvi and is alive to man's welfare. Perseus gave her the Medusa's head, which has a petrifying effect, horrible to look at, as the head is covered with twisting snakes in place of hair. Athena uses this as a kind of shield, by turning it against her enemies, that is to say against unformed and rude people, who consequently change into stone. And the true wisdom of Natural Philosophy changes her enemies, i.e. the unbelievers and jealous ones, into simpletons and into men without feeling or reason; and that is done by means of the same substance as that from which Chrysaor was born, who was the father of the three-bodied Geryon (discourse of embl. xix), namely by the petrifying Gordon blood, which is nothing else but the Tinctura of the Philosophers' Stone.

#### SOURCE OF THE MOTTO

In *Arcana Arcanissima* p. 92, Maier points to Strabo, liber xiv and quotes: "Sic enim Strabo liber 14 scriptum reliquit, in Insula Rhodiorum aurum pluisse, cum Minerva capite Iovis nata est".

"In the island of the Rhodians it rained gold, when Minerva was born out of Jupiter's head".

Strabo, *Geographica*, liber xiv, cap. II, 10 sqq: "... και χρυσόν ὑσθῆναί φασι, ἐν τῇ νήσῳ κατὰ τὴν Ἀθηναῖς γένεσιν ἐκ τῆς κεφαλῆς τοῦ Διός, ὡς εἶρηκε Πίνδαρος"

#### COMMENTARY

The picture of embl. xxiii is divided into two scenes. In the foreground the birth of Athena out of Jupiter's head takes place, whilst Vulcan stands near them. Behind Vulcan is an open fire.



In the background is a bower, in which Sol and Venus make love, whilst a gold rain descends. As appears from the discourse the gold rain represents the vivifying power of Sol. The union of Sol and Venus is a variant of the union of Sol and Luna (embl. xxx) and other coniunctio motifs, through which the union of contrasts is expressed. One would rather expect the presence of the fertilizing gold rain with Jupiter and Danae, whilst Vulcan's presence makes one think rather of the legend of Mars and Venus. So Maier has slightly moved the motifs. However, this is not important, because the same motif of the union of opposites always comes to the fore anyway. Accordingly Maier says in *Symbola Aureae Mensae*<sup>1</sup> that the story about the love of Mars and Venus, who are caught in Vulcan's net, has a chemical meaning, but that the same thoughts find expression in the story about many other gods and goddesses, and in this connection he mentions amongst others Jupiter and Danae; hence the gold rain in the picture of embl. xxiii.

The author of the *Margarita Pretiosa Novella* from the 14th century calls Virgil and Ovid chemical authors and Maier has worked out this conception. Of great importance to Maier was the influence from Italian and Neo-Platonic circles; Pico della Mirandola considered the love of Mars and Venus to be a symbol of the doctrine of Empedocles,<sup>2</sup> who regarded the contrast between attracting and repelling forces as the origin of changes in the Universe.

In the foreground scene of the picture of embl. xxiii Vulcan is standing with his back turned to the fire and in his lifted hands he still has the axe with which he has assisted at the birth of Athena, who rises from the cloven head of Jupiter. This scene is connected with emblem viii, which bears the motto "Take the egg and pierce it with a fiery sword", because in the discourse of embl. viii one reads: "The egg, however, should be smashed with a fiery sword, with which Vulcan (the fire) helps in its function as a midwife, who assists the young one to be born, just as he helped Athena in her

<sup>1</sup> *Symbola Aureae Mensae*, p. 152: "... Nam nihil aliud nisi Veneris et Martis copulatio, hoc est foeminae albæ et viri rubei coniunctio fieri debet in toto opere, idque vinculis Mulciberis seu Vulcani. Hæc sententia eadem est cum innumeris aliis, ut Jove et Junone, Jove et Læda, Danae, etc..".

<sup>2</sup> G. Boas, *The hieroglyphics of Horapollo*, New York 1950, p. 24 and 48. Girolamo Benivieni, *Commentary on the Canzona de Amore Pico dell. Mirand.*, book II, Chapter VI, p. 904, ed. Basel 1557.

birth from the head of Zeus". Summarizing, one may say about the meaning of embl. xxiii that Wisdom is born when Power and Love unite.

In the discourse Maier pays much attention to the Isle of Rhodes. Beside the reasons Maier mentions in the discourse, foreseeing in the Isle of Rhodes associations with alchemical work, there is probably another reason, which Maier does not, however, mention. Before Maier's time Rhodes is already mentioned in connection with alchemists. The first case is the story of Bernhardus Trevisanus. According to his own story,<sup>3</sup> after endless, vain rambles in search of the Philosophers' Stone, Bernhardus Trevisanus finally arrived at Rhodes in 1472 and discovered the Secret of the Philosophers' Stone there. The second case concerns George Riplæus; Riplæus rendered assistance to the inhabitants of Rhodes, when asked for help against the Turkish threat. Riplæus sent them large quantities of gold, obtained from his alchemical transmutations.<sup>4</sup> Because of this help the Knights of St. John were said to be able to stand their ground in Rhodes for another 40 years.<sup>5</sup> From this it appears that the alchemists felt an affinity with Rhodes, but also to the Knights of St. John. The latter devote themselves to the care of the poor and the sick. In Maier's time and within Maier's sphere of interest the care of poor and sick was brought to the fore as one of the very important items in the writings of the Rosicrucians. It does not seem inconceivable to me that Maier, when writing about the Isle of Rhodes in the discourse, meant more than he has written down, and alludes to a connection between the high human objectives of the Knights of St. John, the alchemical conceptions and the ideals of the Rosicrucians.

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<sup>3</sup> According to Ruska, *Tabula Smaragdina*, p. 204, this story is to be found in Bernhardus Trevisanus, *Liber de Secretissimo Philosophorum opere Chemico*, printed in: J. J. Manget, *Bibliotheca Chemica Curiosa*, 1702, II, 388 sq.

<sup>4</sup> See K. C. Schmieder, *Geschichte der Alchemie*, p. 242.

<sup>5</sup> Till 1530 Rhodes was the principal seat of the Knights of St. John.

*EMBLEM XXIV*

(fig. 24)

## MOTTO

The wolf devoured the king and after the wolf had been burnt, it returned the king to life.

## EPIGRAM

Make sure that you catch the voracious wolf,  
By throwing the king's body before it,  
    that it may satisfy its voracity with it,  
Then throw it on the pile, where Vulcan kindles the fire,  
That through this the monster may be reduced to ashes.  
Do this time after time, and so the king will rise from death,  
And he will be proud of his Lion's heart.

## SUMMARY OF THE DISCOURSE

It is well-known how voracious a wolf is. For want of food it eats earth and because of that, it becomes so heavy that it is difficult to knock it over. When the wolf has succeeded in penetrating into a sheep-pen it not only kills there to appease its hunger, but it kills the whole herd out of avidity. The wolf is dedicated to Apollo and Latona and without the presence of the wolf Latona would not have been able to bring forth young. That is why the wolf is said to be rightly dedicated to Apollo, as the wolf celebrated the hour of Apollo's birth; moreover, wolves' eyes radiate light in the night. Now one throws the lifeless body of the king before the wolf, but not in such a way that the wolf devours and destroys it completely, but so that by its own death the wolf restores to the king his life and forces. For in the tail of the wolf an unknown power of love is present, which is poured into the king, on account of which he regains his health and former figure, to the joy of everybody.

According to Cicero the Hyrcani kept special dogs in order to let them devour their dead. Also the Massagetæ had the custom of throwing the bodies of their dead to the dogs. The Sabeans threw their dead, including their kings, onto the dung-heap. The Troglodytes, the cave-dwellers of the Red Sea, bound the necks and feet of their dead together and threw them, playing and laughing, out

of the house and buried them in a random place. Rather than follow the last two examples, the Philosophers followed the approach of the magicians, in so far that they did not bury the bodies of their dead before they were torn to pieces by wild animals; or of the Indians, who let themselves be burnt alive in order to avoid old age. These people, however, did all these things without hope of resurrection or renewal of life.

With the Philosophers this is quite different. They are convinced that from the dead king, devoured by the wolf, the king will rise, alive, strong and young, and that in its turn the wolf will be consumed by fire. For the wolf with its heavy belly can easily be killed; but the king obtains the strength of Mars and Cygnus, through which he becomes invulnerable.

But where is the wolf to be hunted and from where is the king to be got? The Philosophers say that the wolf roams through mountains and valleys in search of a prey, and one says it has to be drawn forth from caves and to be kept for use. The king comes from the East and he falls down exhausted, as he has travelled night and day. His death is accelerated by his sadness, when he perceives that he is not respected abroad. The wolf must come from colder regions than Africa and Egypt, as cold makes wolves more hungry and more savage. When the devoured king rises he has the character of a lion and can conquer all wild animals.

Although the king is, to look at, the most humble of his six brothers (he is Sol, and his six brothers are Luna, Jupiter, Venus, Mars, Saturn, Mercury), and also the youngest one, he will come, however, to the highest power, after suffering much misery. Therefore Gratianus<sup>1</sup> says in the *Rosarium*: "In alchemy there is a noble body, which moves from master to master, in the beginning of which is misery and bitterness, but brings joy in the end". In the same way Alanus<sup>2</sup> says: From all things, one thing has to be chosen, which is leadcoloured, metallic, clear and fluid; it is hot and moist, watery and combustible, it is the living oil and the living Tinctura, it is the mineral Stone and it is life-water with a wonderful effect".

Outside his country the king is not always safe, for when he is recognized and wants to keep himself hidden, he is considered to

<sup>1</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 306-307.

<sup>2</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 314.

be a traitor by his enemies and thrown into prison, but when he marches on without the help of an army, he is also taken prisoner. This capture is the first sublimation, washing or improvement, applied by the Philosophers, in order that afterwards the second and third one may be all the more successful. For these are of no importance as long as the insignificant, sleepy sick state of the king exists. First the king should impose taxes and get himself clothes and other necessities with that money, and after that he is rich enough to provide all his subjects with them. For it is like this, that great things originate from a humble beginning and, after having grown, may produce other small things or may suppress great things. An example of this is that of the towns, which are small in the beginning, but grow into large, densely populated towns under the reign of great kings.

#### SOURCE OF THE MOTTO

Basilus Valentinus, *Practica Cum Duodecim Clavibus et Appendice, De Magno Lapide Antiquorum Sapientia*, clavis I, printed in: *Musaeum Hermeticum*, 393: "..... accipe gryseum avidissimum lupum ..... fame acerrima occupatus, ac projice ipsi corpus regis, ut inde sibi alimentum habeat, et cum regem devoravit, fac magnum ignem, in quem mitte lupum ad comburendum penitus; tum Rex iterum liberabitur". "..... You should take the grim, voracious wolf ..... which is consumed by an insatiable hunger and throw the body of the king before it, in order that it feeds itself on it, and when it has devoured the king you should lay a large fire and throw the wolf into it to burn it totally, and then the King will be freed again".

#### COMMENTARY

The king is the symbol of the Philosophers' Stone. He has to be destroyed by the wolf (antimony) and be purified by the fire, after which he rises and is immortal. He is also the tinctura which cures all diseases. For embl. xxiv Maier used one of the twelve "keys" of Basil Valentine. Maier values the latter's work so highly that he attended to the editing of this writing; it is one of the three writings from Maier's *Tripus Aureus*.

A quotation from the first key of Basil Valentine's work may suffice to elucidate further the meaning of this emblem:

"Be it known to you, my friend, that all things which are impure and soiled, are unworthy of our work: For their leprosy (base metals are called lepers) will not be of any help to our work, on the contrary, what is good is checked in its development by what is impure (the king, or that which is good, may be killed, because impure parts may be within him). . . . .

But just as a physician cleans and purifies the internal body by means of his medicines and then expels all impurities, so our matters must be cleaned and purified from all their impurities, so that in our creative work perfection may be attained.

Our masters look for a pure, undefiled substance, which is not falsified by any stain or admixture of foreign matters. For the leprosy of our metals consists of the addition of foreign matter.

Take care that the king's diadem consists of pure gold, and that a chaste wife is united to him. Therefore, if you want to work with our matters, you should take the grim, voracious wolf, which, in virtue of its name, is subject to the bellicose Mars, but which, according to his birth, is a son of the grey-haired Saturn, and which is found in the valleys and on the mountains of the world, and which is consumed by an unappeasable hunger. You should throw the body of the king to this wolf, so that it feeds on it, and when it has devoured the king, you should lay a large fire and throw the wolf into it to burn it totally, and then the king will be freed again. When you have done so three times, the Lion has conquered the wolf, and will find nothing any more to its taste in it.

And just so is our substance at the beginning of our work. But may you know that this is the only and legal way of purifying right our matters. For the Lion cleans itself with the blood of the wolf and the tincture of its blood rejoices in the tincture of the Lion in a wonderful manner. However, the blood of both is connected by blood-relationship. When the Lion is satisfied, its mind has become more powerful than before, and its eyes are radiant with great brightness like that of the Sun (The "Lion's heart" of the King—last line of Maier's epigram—refers to this text). And here its innermost kernel is of much more importance and is useful for all things for which it is sought. And when it is prepared like this, all sons of men, who are harassed by very serious mortal diseases and other ailments, express their thanks to it. Those ten leprous men follow it and want to drink the blood of its soul, and everybody who is affected by any evil, deeply rejoices in its spirit. For whosoever drinks from this gold fountain, feels a certain renewal of his being, a deliverance from evil, a good circulation of his blood, a fortification of his heart and a perfect health of all members of his body, internal as well as external.

For by drinking from the gold fountain all nerves and pores are opened, so that the evil may be carried off and good may quietly occupy the place of the evil".<sup>3</sup>

From the Lion representing the *tinctura rubea* or from the *aurum potable*, by which all diseases can be cured, Basil Valentine proceeds to the symbol of the gold fountain. Good takes the place of evil; this may be considered to be applicable to the domain of health and illness, but at the same time the gold fountain evokes associations with the Fountain of Life, and with Christ as the Source of Life, in whose salvatory waters humanity bathes.<sup>4</sup>

<sup>3</sup> Basilius Valentinus, *Practica Cum Duodecim Clavibus etc.*, key 1 partly. Printed in: *Musaeum Hermeticum*, 393 sqq.:

"Amicus meus sciat, omnes res impuras et maculatas ad nostrum opus indignas esse: Nam earum leprositatis nihil adjumenti præstare poterit nostro operi: at bonum per impurum impeditur. . . . Ac quemadmodum medicus interiora corporis purgat et purificat per media medicamentorum suorum, omnesque sordes inde expellit: Ita et nostra corpora purificari et purgari debent ab omni suo impuritate, ut in nostra generatione perfectio operari possit: Magistri nostri purum, immaculatum requirunt corpus, quod nulla macula aut perigrini commixtione adulteratum sit: Alieni enim additio est nostrorum metallorum leprositatis.

Diadema regis sit ex auro puro, et casta sponsa ipsi conjugio copuletur: Quapropter si per nostra corpora operari velis, accipe gryseum, avidissimum lupum, qui ratione sui nominis bellicoso Marti subjectus, origine autem nativitatis senis Saturni filius est, qui in vallibus et montibus mundi reperitur, fame acerrima occupatus, ac projice ipsi corpus regis, ut inde sibi alimentum habeat, et cum regem devoravit, fac magnum ignem, in quem mitte lupum ad comburendum penitus, tum Rex iterum liberabitur: Cumque hoc ter factum fuerit, tum Leo superavit lupum, nec quicquam in eo amplius consumendum inveniet:

Atque sic corpus nostrum principio nostri operis est idoneum.

Ac scias, hanc solam esse viam rectam ac legitimam ad corpora nostra purganda: Nam Leo sese purificat sanguine lupi, ac sanguinis eius *tinctura* mirifice lætatur *tinctura Leonis*: siquidem amborum illorum sanguis affinitate quadam propinquitatis invicem conjunctus est: Cumque Leo satiatus sit, spiritus ejus fortior factus est, quam prius, oculique ejus splendore magno radiant, instar Solis: Ac interior ejus essentia plurimum valet ac utilis est ad omnia, ad quæ requiritur: Et cum ita præparatus fuerit, gratias ipsi agunt hominum filii gravissimis morbis caducis aliisque affectibus vexati. Decem illi viri leprosi prosequuntur ipsum ac desiderant bibere de sanguine ejus animæ, omnesque qui malo afficiuntur, gaudent penitus ejus spiritu. Nam quicumque ex hoc aureo fonte bibit, sentit renovationem quandam suæ naturæ, mali ablationem, conformationem sanguinis, corroborationem cordis ac perfectam sanitatem omnium membrorum sive interiorum, sive exteriorum in corpore compræhensorum. Omnes enim nervos et poros aperit, ut malum abigi ac bonum ejus locum quiete obtinere possit". Etc.

<sup>4</sup> In mediæval and Renaissance art occurs the motif of Christ, shedding

## EMBLEM XXV

(fig. 25)

## MOTTO

The Dragon does not die, if it is not killed by its brother and sister,  
i.e. Sol and Luna.

## EPIGRAM

It is no insignificant work of art, to kill the Dragon in such a way,  
That it does not crawl along the ground, soon revived.  
Its own brother and sister together smash its head with a club,  
And nothing else can bring it down.  
Phoebus is its brother, and Cynthia its sister,  
The Python was felled by his hand, Orion by hers.

## SUMMARY OF THE DISCOURSE

To capture the Golden Fleece the Dragon had first to be killed. This was attempted in vain by many, and in this attempt they were conquered by the Dragon and killed by its poison. The reason for this was, that they were not well enough armed and that they were not informed about the way in which the Dragon had to be killed. Jason, the physician, however, neglected no remedy, and he had several at his disposal, on Medea's advice; amongst others he received pictures of Sol and Luna, by which he obtained the Golden Fleece. So the Dragon was conquered by the Sun and the Moon or their pictures, as the Philosophers emphasize in various places.

Thus the *Rosarium* quotes Hermes, in the words: "The Dragon does not die, if it is not killed by its brother and sister, and not only by one of them, but by both of them together, i.e. by Sol and Luna". The Philosophical Mercury does not die, unless it be killed together with its sister, which means that it should be coagulated with Sol

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his blood, sometimes standing above a basin, whilst the blood from his wounds flows into it and the believers kneel around him. He is the Source of Life, in which humanity bathes. Cf. E. Mâle, *L'art religieux après le Concile de Trente*, Paris 1932, III, 110 and W. Molsdorf, *Christliche Symbolik der mittelalterlichen Kunst*, Leipzig 1926, 198. In alchemical symbolism this motif returns as the Mercury source. An example of such a Mercury source is fig. 4 from Stephan Michelspacher's *Cabala Spiegel der Kunst und Natur*, Augsburg 1616 (see fig. 79).



and Luna. The Dragon is the mercury separated from the bodies, and it possesses mind, soul and body. Now about this it is said that the Dragon does not die, if it is not killed by its brother and sister, that is by the sun and the moon, by the separated sulphur, which has in itself the moist, cold nature of the moon; because of this the Dragon dies, that is to say because of this the mercury dies which was separated out of these bodies from the beginning; it is the "aqua permanens", the eternal water of the Philosophers, which comes into being after the putrefactio and after the separation of the elements, and it is also called "aqua foetida", the stinking water (motto emblem XXXVII).<sup>1</sup> All other authors agree with these words and it is not necessary to mention them separately.

The inhabitants of Epirus worship the Dragon in the temple of Apollo, because it killed the Python. There exists a struggle and real hate between Elephant and Dragon, in which the Dragon attacks the eyes and neck of the elephant, till the Elephant falls to the ground, but at the same time crushes and kills the Dragon by its weight, with the result that the dragon's blood flows even into our regions.<sup>2</sup> The dragon has eyes like gems and a sharp, clear look, and that is why it is the treasurer of various things, e.g. of the gold apples in the Garden of the Hesperides and of the Golden Fleece at Colchis. In Antiquity the Dragon was also given as an attribute to Aesculapius.

In the works of the Chemists the Dragon is used allegorically. In their work the Dragon always means Mercury, either in solid or in volatile state; therefore Mercury carries the double caduceus, for the Dragon is an enormous serpent. Saturn is seen with one serpent, a

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<sup>1</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 258.

<sup>2</sup> A picture of the struggle between the serpent and the elephant occurs in M. Maier's *Tractatus de Septem Montibus Planetarum*, p. 54 (fig. 70). The source for this picture is Plinius, *Hist. Nat.*, VIII, 12: "the snakes are so large that they can hold the whole of an elephant's blood, and so they drink the elephant dry, and these, when drained, collapse in a heap and the serpents, being intoxicated, are crushed by them and die with them"; and Plinius XXXIII, 38 (dealing with cinnabar): "... The Greek name for it is 'miltos', and they call minium 'cinnabar'. This gave rise to a mistake owing to the name 'Indian Cinnabar', for that is the name the Greeks give to the gore of a snake crushed by the weight of dying elephants, when the blood of each animal gets mixed together, ... that kind of cinnabar is extremely useful for antidotes and medicaments".

serpent that devours its own tail. The snake is also dedicated to Apollo's son Aesculapius, the inventor of the medical science of the Wise, who, as it is said, crawled from Epidaurus to Rome in the shape of a serpent, where he was eternally venerated, because, as it was said, he had brought about the end of the plague.

The Dragon of the Philosophers is always vigilant and alive and cannot easily be wounded, partly on account of its thick skin, partly on account of its sharp teeth and the sharp poison, with which it is armed. It can seldom be mastered by violence, unless it is attacked by the craftiness of its fellows. For it is true what the poet says, that the sagest way of deceiving is to do so under the cloak of friendship. Quacks for example say that they use the powder of snake-poison for children, who suffer from worms; so these are brothers killed by their brothers and sisters. In the same way this Dragon should be killed by Sun and Moon. From this it appears that the Dragon belongs to the number of planets, which, moreover, also appears from the *Rosarium*.

The Greeks know a story about a Dragon, which at the time of king Herodes, loved a beautiful young girl; another story is that Tiberius kept a Dragon which he fed himself. In the same way the Philosophical Dragon loses its fierceness, if it is treated in the right way, and becomes a friend of men, but it becomes an enemy, if it is treated in the wrong way. Xanthus, the writer of stories, says in Pliny that a Dragon revived its slain young one by the herb called Balin; this is rather allegorically right than historically, as the dead Dragon revives and the living Dragon dies only in chemical matters.

To the question of how the Dragon should be caught, the Philosophers answer that the mountains procure the Dragons and that the earth procures the sources for the sake of the Rebis. Tacitus describes how a Dragon in Africa is caught and is taken to Tiberius in Rome; the Dragon, which usually sat between stones, was gradually cornered, put in irons, controlled by strokes from a stick, and as heavy in weight as many trucks, was transported to Rome by ship.

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 258 or 302:  
 "Draco non moritur nisi cum fratre et sorore sua, id est Sole et Luna ...".

"The Dragon does not die, if it is not killed by its brother and sister, i.e. Sol and Luna".

### COMMENTARY

In the picture in the foreground, we see Sol and Luna, who, with a bludgeon, attack the winged Dragon, or the volatile Mercury. He has to lose his volatility, his mobility and changeableness and to be coagulated into Stone. In the middle of the design the struggle between Sol and Luna against the winged Dragon is again pictured; now, however, Sol and Luna are armed with bow and arrow; perhaps this refers to the fire that has to be conquered, if, anyhow, the words from Maier's *Symbola Aureae Mensae* are applicable here: "The fire mentioned here is called the Python by poets, because it is the fire of the putrefactio which is killed by the *arrows* of the philosophical Apollo; by metathesis the Egyptians speak about Typhon, who kills Osiris and dissects him into extremely small parts".<sup>3</sup> In this last phrase there arises a relationship between embl. XXV and embl. XLIV.

The actions of embl. xxv are situated in a landscape, with the sea in the background. In this sea somebody is swimming with his arms wide spread, this is the sea-king, who cries loudly for help and represents the Philosophers' Stone, which is in danger of perishing in the aqua pontica; it is the gold, which is in danger of perishing in mercury, which can be coagulated only with difficulty; it is the human soul, which is in danger of being submerged in the waters of destruction. For the swimming figure is the leading motif of embl. xxxi with the motto: "The king, swimming in the sea, calling in a loud voice: He who saves me will get a tremendous reward".

In the epigram of embl. xxv Phoebus and Cynthia<sup>4</sup> are called the brother and sister of the Dragon; that is to say Apollo and Diana, who represent Sol and Luna (represented as such in embl. xi, where they are standing at the knees of their mother Latona, as children with the sun and moon emblems on their heads), are the end of the

<sup>3</sup> M. Maier, *Symbola Aureae Mensae*, 266: "Ignem, de quo hic sermo est pœtæ vocant Pythonem quia est putrefactionis, ab Apolline philosophico sagittis interemptum, Aegyptii Typhonem, transpositis literis, qui Osiridem occidit et in partes minutas discerpit".

<sup>4</sup> Phœbus Apollo and Diana are also called Cynthius and Cynthia after the mountain of that name in Delos, where they were born.

circular process, which begins with the Dragon. It is a variation of the expression: "The Dragon, which devours its own tail", by which there arises a connection with embl. xiv, the quoted expression of which forms the motto.

### EMBLEM XXVI

(fig. 26)

#### MOTTO

The fruit of human wisdom is the Wood of Life.

#### EPIGRAM

In human affairs there is no greater wisdom,  
 Than that from which arise wealth and health.  
 In her right hand she keeps a long life in good health,  
 But her left hand conceals overwhelming treasures.  
 When somebody approaches her with head and hand,  
 She will be for him of the same value as the fruit of the Tree of Life.

#### PICTURE

Crowned Lady Sapientia, standing in a landscape with a tree. The tree is the arbor scientiæ; it is the true tree of knowledge; it is the tree that bears Moon and Sun as fruit. In this way Maier pictures it in his *Symbola Aureae Mensae* (p. 555), (fig. 62).

She carries two banderoles, with the texts:  
 longitudo dierum et sanitas, length of days and health; and gloria ac divitiæ infinitæ, honour and infinite riches.

These text are taken from the *Old Testament*, *Proverbs* III, 16:  
 (de sapientia)

"Longitudo dierum in dextera eius et in sinistra illius divitiæ et gloria".

#### SUMMARY OF THE DISCOURSE

Cicero has clearly described the essential difference between man and animals: man is distinguished from the animals by his reason and in this surpasses the animals. The fierceness, the physical strength or the swiftness of a wild animal cannot be so great that it cannot be tempered, conquered or averted by reason. Reason is

not something human or something originating from man, but it is, as the poets rightly say, a little bit of divine breath, which has flowed from heaven into the human body. Sometimes reason is called memory, sometimes an intellectual faculty; if experience is added to it, wisdom results, the most precious thing that exists for a human being. Experience may be considered as the father, the ratio as the mother, and wisdom as their child.

One may wonder what the real truth is, which is so worthy of man's investigation, as there exist many views about this. Well then, wisdom in human affairs—the divine Wisdom, which always refers to spiritual welfare, may be left aside—is not to be found in sophisticated niceties of fine-sounding speeches, nor in poetical effusions or grammatical subtleties.<sup>1</sup> Nor is it to be found in command or interdiction, in ruse and injustice, nor in deceit, lies, heartlessness, exploitation of poor people and slyness in collecting wealth. Wisdom is nothing else but the knowledge and the application of True Chemistry. This is the Wisdom that is elevated above everything, that penetrates into the East on the right and into the West on the left and that contains the whole earth.

Thus Solomon, in his book *Sapientia*, speaks about wisdom as follows: "Those who are akin to it are immortal and in her friendship there is pure delight, for one does not get bored of going about with Sapientia, and it does not rouse aversion to be with her, but pure loveliness and joy".<sup>2</sup> And although wine and music also bring joy to the human heart, Sapientia is nevertheless more attractive, for "she is the Tree of Life to those who lay hold on her and happy

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<sup>1</sup> Beside the Revelation in the *Old* and *New Testament*, the artes liberales are the only source of knowledge for mediæval man. These seven free arts were divided in the trivium, consisting of grammar, rhetoric and dialectics; and the quadrivium, consisting of arithmetic, geometry, astronomy and music. If one masters the artes liberales, one enters the domain of philosophy; the latter leads to theology. From Maier's rejection of "sophistical niceties, fine-sounding speeches etc.", in relation to wisdom, it appears that he has in mind the value of the trivium and has a low opinion of it.

The importance of the quadrivium for the *Opus Alchemisticum* is beyond all doubt; each emblem is provided with music and embl. *xxi* is dedicated to geometry.

<sup>2</sup> Taken from the *Old Testament, Liber Sapientiae, VIII, 16*: "Intrans in domum meam conquiescam cum illa; non enim habet amaritudinem conversatio illius, nec tædium convictus illius, sed lætitiā et gaudium".

are those who serve her".<sup>3</sup> Lactantius calls her the food of the soul.<sup>4</sup> The wise will be honoured and he who honours Wisdom, will be raised by her. Also the pronouncement of the prophet Baruch may be applied to the 'sapientia mundana' when he says: "Learn true Wisdom and find out who it is, who distributes length of days, wealth, joy and peace".<sup>5</sup> *Sapientia*, chapter 9, vs. 17, stresses the point that wisdom is a secret counsel for the knowledge of God and that endless wealth and everything that is good, ename from her and that he, who associates himself with wisdom, is loaded with honour by her.

About this Morienus, the Philosopher, says: "For this is the knowledge that leads its master away from the misery of this world and leads him back to the knowledge of good things to come".<sup>6</sup> That Morienus considered wisdom to be a gift of God appears from the following words: "God gave this divine and pure knowledge to his faithful servants and that to those for whom he had destined it from time immemorial", and somewhat further on Morienus continues: "For this is nothing else but a gift from God, God who can do all he wants, and who can grant and reveal this gift to anyone of his faithful servants as he wishes, therefore we must be humble before God almighty". Further on Morienus says: "You ought to know, o king, that this mastership is nothing else but the exalted secret of the secrets of God Almighty. He himself trusted this secret to his prophets, whose souls he undoubtedly took to him in Paradise".

Regarding this one speaks about the Wood of Life, not because it has in it eternal salvation, but because it, as it were, shows the way to it, and because it bears the fruits which are of use for this life, i.e., health, happiness and inner peace. For without these things mankind is dead whilst still alive and does not differ from a wild animal, though external things make him see how he should be.

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<sup>3</sup> *Old Testament, Proverbia*, III, 18: "Lignum Vitæ est his qui apprehenderint eam, et qui tenuerit eam beatus".

<sup>4</sup> Lactantius, *Divinarum Institutionum*, liber III, cap. XIII, "de animæ immortalitate, deque sapientia, philosophia et eloquentia", in: Migne, *P.L.*, VI, col. 383-386.

<sup>5</sup> *Old Testament, Baruch*, III - 14: "Disce ubi sit prudentia, ubi sit virtus, ubi sit intellectus, ut scias simul ubi sit longiturnitas vitæ et victus, ubi sit lumen oculorum et pax".

<sup>6</sup> Morienus, *Liber de Compositione Alchemiæ*, in: *Art. Aurif.*, II, 24 sq.

## SOURCE OF THE MOTTO

*Old Testament, Proverbs III, 18 (de sapientia):*

"Lignum Vitæ est his, qui apprehenderint eam et qui tenuerit eam beatus".

"She is a tree of life to those who lay hold on her; and everybody who holds her, becomes blessed".

The epigram is also based on *Proverbs III, 16 and 18*. Maier did not choose these quotations from the *Old Testament* himself and neither did he choose them arbitrarily; the connection Solomon-alchemy was a current theme. So his choice of the text from *Proverbs* is based on the *Rosarium Philosophorum*. This appears from the fact that the text of embl. xxvi and of the following embl. xxvii both occur in the *Rosarium Philosophorum*,<sup>7</sup> also in succession.

## COMMENTARY

In the discourse Maier states that men are distinguished from animals by their reason. This reason is not earthly but divine. When reason and experience come together in men the result is wisdom, a wisdom, which spans the world from East to West.

Emblem xxvi occupies a central place in the *Atalanta Fugiens*, namely in the middle of the book. The remarkable thing in the discourse is the series of references in the margin, parts of which Maier has incorporated into the discourse. The references are from Solomon, *Liber Sapientiae, Proverbia*, the prophet *Baruch* and *Jesus Sirach*. The fact that this is the only emblem in the *Atalanta Fugiens*, where such detailed, scriptural textreferences occur<sup>8</sup> makes one presume that Maier wanted to draw special attention to the religious foundation of emblem xxvi and at the same time to all emblems from the *Atalanta Fugiens*, as Lady Sapientia personifies the whole "cognitionem Chymiæ, cum praxi", as Maier says in the discourse.

The emphasis in the connection alchemy-sapientia falls on Solomon, who was to the alchemists a pre-eminent alchemist; his wealth was considered to come from his Hermetic knowledge; he possessed

<sup>7</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 305-306 and 307 respectively.

<sup>8</sup> *Sir.*, IV, 13; *Sap.*, VIII, 16; *Sir.*, IV, 20; *Sap.*, X, 10; *Prov.*, III, 18; *Lac.*, LIII, 13 (see note 4); *Prov.*, III, 35; *Sir.*, I, 24; *Sir.*, IV, 12, 14; *Sap.*, VI, 21; *Sap.*, VIII, 13; *Sap.*, X, 12; *Eccl.*, VII, 20; *Baruch*, III, 14; *Sap.*, VIII, 5-18; *Sap.*, VII, 11; *Sir.*, I, 24.

the true knowledge, knew the forces of the elements, beginning, middle and end of times, the course of the stars etc. (*Sapientia*, VIII, 15-21). Wisdom is "the food of the soul", Lactantius concludes at the end of the chapter about the immortality of the soul,<sup>9</sup> to which Maier refers in the discourse.

In *Symbola Aureae Mensae* Maier allots an important place to Solomon<sup>10</sup> and adds a quotation from the *Rosarium Philosophorum* (see note 7 and source of the motto), from which it appears that emblems xxvi and xxvii and the connection between those emblems with *Old Testament* texts is based on the *Rosarium Philosophorum*, beside a direct borrowing from the sources mentioned by Maier in the discourse. The *Rosarium* also claims that alchemy is a doctrine of salvation, which leads to lasting happiness; as it was already described by Morienus:<sup>11</sup> "For it is this knowledge which leads its master away from the misery of this world and leads him back to the knowledge of good things to come".

In this emblem the connection between hermetic philosophy and the ideals of the Fraternity of the Rosicrucians are shown most explicitly. Maier has borrowed the mottos of the emblems xxvi and xxvii and the references to *Sapientia* from the *Rosarium Philosophorum*. With the exception of the words Maier used for the motto of emblem xxvii, the text in the *Rosarium* also occurs in the first part of the *Aurora Consurgens*, the writing which consists of two parts, the first part of which was known only in manuscript until 1625, and the second part of which was printed in *Art. Aurif.*, with the editor's statement that the first part had been left out, because the equating, which occurred there, of the alchemical work with the passion and death of Christ, was in his opinion, a profanation.

However, the *Rosarium Philosophorum*, also inserted in *Art. Aurif.*, appears to have used the first part of the *Aurora Consurgens* as a source. The text, which in the *Rosarium* (*Art. Aurif.*, II, 305-306), runs parallel with the text of the *Aurora Consurgens* (1st chapter),<sup>12</sup> reads:

<sup>9</sup> Lactantius, *Divinarum Institutionum*, see note 4.

<sup>10</sup> M. Maier, *Symbola Aureae Mensae*, 64-71.

<sup>11</sup> Morienus, *Liber de Compositione Alchemiae*, in: *Art. Aurif.*, II, 24, "Hæc enim scientia est, quæ dominum suum abstrahit ab huius mundi miseria, et ad scientiam bonorum futurorum reducit".

<sup>12</sup> C. G. Jung, *Mysterium Coniunctionis*, III, 31-35.



"Solomon, in *Sapientia* 7, proposed to use this science as a light, and put her above all beauty and salvation. In comparison with her he did not value the precious stone. For all gold is, in comparison with her, like sand of small value and, compared with her, silver will be valued as clay. For her commerce is better than the commerce of silver, and her produce better than the purest gold. She is more precious than all riches of this world, and nothing that is desired in the world is worthy to be compared with her. Length of days and health is in her right hand, in her left, honour and endless riches. Her roads are beautiful, praiseworthy works, not despicable, and her paths are measured and not hurried, but in the tenacity of daily work she is a tree of life for those who seize her, and a never extinguished light; blessed are those who have hold of her, for the *Scientia Dei* will never perish".<sup>13</sup>

As appears from the words of the motto of embl. xxvii, which are found in the *Rosarium*, but not in the *Aurora Consurgens*, Maier used the *Rosarium* as a source, but also the *Aurora Consurgens*. That he knew of the manuscript of the *Aurora Consurgens* appears from the picture of emblem xi, which was inspired by the picture from the *Aurora Consurgens* manuscript of the purification of azoth and fire (see embl. xi).

In the *Aurora Consurgens* the pairing of alchemical and biblical quotations is more prominent than in other alchemical writings (perhaps with the exception of *Pretiosa Margarita Novella*, *Gloria Mundi* and *Aquarium Sapientum*). In other alchemical writings this tendency is not completely absent, as appears from the passage of the *Rosarium Philosophorum*, but it is not worked out in so much detail and one has to read more between the lines. The manuscript of the *Aurora Consurgens* is divided into 12 chapters. The first five

<sup>13</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, 305-306: "Salomon, Sapientia septimo: Hanc scientiam pro luce habere proposuit, et super omnem pulchritudinem et salutem. In comparatione illius lapidis preciosi non comparavit illum; quoniam omne aurum tamquam arena exigua est, veluti lutum aestimabitur argentum in conspectu illius. Melior est enim acquisitio eius negociatione argenti et auri purissimi. Fructus illius preciosior est cunctibus opibus huius mundi, et omnia quæ in mundo desiderantur, huic non valent comparari. Longitudo dierum et sanitas in dextera eius; in sinistra vere eius gloria et divitiæ infinitæ. Viæ eius operationes pulchræ et laudabiles, non despectæ, et semitæ eius moderatæ et non festinæ, sed cum laboris diuturni instantia, lignum vitæ est his qui apprehendunt eam, et lumen indeficiens; beati qui tenuerint eam quia *Scientia Dei* nunquam peribit". This text practically agrees with the *Old Testament*, *Sapientia* VIII, 7 and with *Proverbia*, III, 14-18.

form an introduction, mainly devoted to the sapientia, the seven last are seven parables, in which the mystical alchemical process is worked out in seven stages, each stage of which again begins with the putrefaction, of a spiral form as it were, on an ever more developed plan. The first parable deals with the black earth, in which the seven planets are rooted and the last, seventh parable describes the conversation between bride and bridegroom in a text taken from the *Song of Songs*, as a variant on the personified contrasts in alchemy.

### EMBLEM XXVII

(fig. 27)

#### MOTTO

He who tries to penetrate into the Philosophical Rose Garden without a key, resembles a man who wants to walk without feet.

#### EPIGRAM

The Rosegarden of Wisdom has an abundance of various flowers,  
But the gate is always closed with strong bolts;  
Only one thing of little value is found in the world which is the  
key to it.

Without this key you will walk like somebody without legs.  
You will try in vain to climb up to the steep top of the Parnassus,  
You, who have hardly sufficient strength to remain standing on flat  
ground.

#### SUMMARY OF THE DISCOURSE

It is written about Erichthonius that he is a son of Vulcan and the earth, as Vulcan discharged his seed on the earth, after Athens had refused him; and as a consequence of this Erichthonius is said to have been born without feet, crawling like a snake. In the same way people who, in the Philosophical work, rely exclusively on Vulcan's fire without the wisdom of Athena, bear monstrous, footless deformed fruits, which cannot keep themselves standing not yet be of use to anybody else. It is a miserable sight to see a man walk on hands and feet, but it is still worse when, for lack of feet, he exclusively uses his hands in order to crawl along as a snake. And

he who follows the way of life of a worm, seems also to obtain its nature.

Man needs two legs for walking, two eyes for seeing, two hands for seizing. Likewise medicine and any other profession need two supports to stand on, which are *Experientia* and *Ratio*, without which no success can be obtained. The two legs in chemistry are the key and the bolt; with them the Philosophical Rose-garden, closed on all sides, may be opened. If one has not got them, one resembles somebody who is lame and wants to pursue a hare. He who, nevertheless, penetrates into the closed Rose-garden without a key, is like a thief who, sneaking in the dark of night, cannot distinguish anything of the things growing in the Rose-garden and consequently cannot profit by it.

That key, however, is something very insignificant, of little value and is also called a stone and it is the root of Rhodes, without which no seed can sprout, no precious stone can be formed, no rose, coming into bloom, can unfold its tiny leaves. But if you ask me where that key is to be found, I answer with the words of the oracle, that you have to look for the key in the place where Orestes' bones are to be found, namely there where winds, manslaughter, reflection and the ruin of men are found together. Lychas interprets this place as the smithy,<sup>1</sup> the winds as the bellows, the manslaughter as the hammer, the reflection as the anvil and the ruin of men as the iron that is worked on.

If you notice and distinguish the signs well, you will find this key in the northern hemisphere of the Zodiac and you will find the bolt in the southern hemisphere; after that it will be simple to open the entrance and to enter.

At the entrance you will see Venus with her beloved Adonis; she coloured the white roses red with her blood (see embl. XLI). You also see the dragon there, which guarded the roses in the Garden of the Hesperides (frontispiece). It is said that the smell of the roses is strengthened by the garlic plants growing beside them; that is caused by the extreme heat which is present in the garlic plants, by which they resist noxious cold. For the rosebushes need the warmth of the sun and the earth before they obtain the colour and the de-

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<sup>1</sup> Orestes, buried in the smithy at Tegea, Herodot, I, 67-68.

licious flavour which caress the senses so much. When the vapour of common sulphur touches these roses they become white, but when the spirit of vitriol or aqua fortis touches them, they become red again, a red of lasting value. Common sulphur forms a contrast with Philosophical Sulphur, although common Sulphur is powerless to destroy Philosophical Sulphur; the dissolving water, however, brings about a reconciliation and maintains the colour. The Rose is dedicated to Venus on account of its loveliness, in which it surpasses all other flowers. The Rose itself is a virgin, armed by Nature, so that it cannot be violated with impunity. Violets, on the contrary, are not armed and are trodden under foot; Roses, hidden between their thorns, have yellow hairs on the inside and a green garment on the outside. Only a wise man will pick them and separate them from the thorns; anybody else will hurt himself on the thorns. Therefore nobody—with the exception of the most careful of the Philosophers—will pick these roses, unless he prefers to gather bile instead of honey. There are already quite a lot of people who secretly entered the Rose-garden with robbers' hands, but they never took anything out of it, other than misery, and their troubles were in vain. On account of this Bacassar says in the *Turba*: "Our books seem to do great injustice to those who only read our writings once, or twice or three times; deceived by intellect and study they have also lost their fortune, their work and time which they had invested in this art". And slightly further on: "For if somebody thinks he has reached it and has matter in a pure state, he will perceive that he stands with his hands empty".

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art Aurif.*, II, 307:

"Quicumque vult intrare Rosarium nostrum, et ibi videre, et habere rosas tam albas quam rubeas absque re vili, cum qua nostræ reseraturæ reserentur, ille assimilatur homini ambulare volenti absque pedibus; quia in illa re vili est clavis, ex qua septem portæ metallicæ aperiuntur at absque illa re vili nunquam preciosum perficitur".

"Whosoever wants to enter our rosegarden without the thing of slight value, by which our bolts are unbolted, and see and collect there white roses as well as red ones, resembles a

man, who wants to walk without feet; because the key is in that insignificant thing, by which the seven metal gates can be opened, and without it nothing precious will ever be achieved".

### COMMENTARY

This emblem is connected with the previous one, as appears from the source of the motto and because this emblem, just as the previous one, is based on *Old Testament* texts. The meaning of the emblem is that no perfection can be reached without a previous dissolution. The garden of Wisdom is compared with a closed garden. This evokes associations with the *Song of Songs*: "You are an enclosed garden, a source enclosed, a fountain sealed" (IV, 12);<sup>2</sup> the epigram calls the gate which is always closed with strong bolts analogous to *Isaiah* (XLV, 2-3): "I shall break in pieces the doors of bronze, and I will cut asunder the bars of iron". In the epigram the resemblance to *Isaiah* does not stand out so clearly as in the source of the motto, the *Rosarium Philosophorum*, in which is mentioned the key that unbolts the bars of the seven metal gates. The idea is that of the soul joining the light from darkness.

In his discourse Maier says that the man without feet is like somebody who wants to begin philosophical work without ratio and experientia, and he compares him with Erichthonius, who was born mutilated, because he was born from Vulcan's seed, which fell onto the earth, because the goddess of Wisdom, Athena, despised him. In the same way philosophical work fails, if it is exclusively taken up with fire (Vulcan), but without wisdom (Athena).

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<sup>2</sup> In the Mary typology Mary is called amongst other things the hortus conclusus, the closed garden, or vas signatum, sealed vessel. Just as there exists, in alchemy, a correlation between the Lapis Philosophorum and Christ, in the same way in this emblem the double meaning of the hortus conclusus or the rosarium finds its expression: on the one hand there is the rosarium or the hortus conclusus in which Sapientia resides, on the other hand is the rosarium or hortus conclusus or Mary, in whose body Christ takes shape. The latter, Mary, who bears Christ within her, has an alchemical parallel in embl. xxii, in which the albedo, which bears in it the rubedo, or the Philosophers' Stone, is represented as a pregnant woman.

Mary as "vas signatum" has as a parallel the "vas bene clausum" of alchemical literature, represented by Maier in embl. viii as the "philosophical egg".

(For typologies of Mary see: M. Boval, *Les litanies de Lorette*, Charleroi-Paris, 1946, p. 25 sq., "L'Hymnologie Mariale").

The key to the ability to open the rose-garden or to climb up to the top of the Parnassus, is a thing of little value. In the discourse it is written about this, that the key should be found in the place where the bones of Orestes, the winds, the manslaughter, the reaction and the ruin of men are found; or in the smith's workshop; or in the hemisphere of the nocturnal zodiac, if the signs are followed rightly and up into the afternoon.

These are symbols for the putrefactio, death, ruin and dissolution, where the destruction in the waters of the Flood and where the pool of depravity of Babylon is thought of, besides the matter in the alchemical retort. This is clear from the source behind the source of the motto, the *Aurora Consurgens*. In the parables of the *Aurora Consurgens* the putrefactio is also pictured in visions of that nature, as show the following titles of the parables.

The first parable about the black earth, in which the seven planets took root, is followed by the parable "about the diluvial waters and death, brought by a woman and driven away by a woman" (Eve and Mary): the third parable bears the title "about the gate of bronze and the iron bar of the Babylonian captivity" (analogous to *Isaiah XLV, 2-3*).

The putrefactio is expressed in these pictures. The building-up and resurrection follows. In the *Aurora Consurgens* the fourth parable is dedicated to the philosophical belief that rests upon the trio (Trinity). The words of the fifth parable are based on this belief: "About the treasure-house that was founded on the rock by Sapientia". Cosmic arrangement is the subject of the sixth parable with the title: "About heaven and earth and the arrangement of the elements". The completion of this process is sung of in the seventh parable with the title "About the conversation of bride and bridegroom", based on the *Song of Songs*.

The *Rosarium* also (source of the motto) points to the blessed apotheosis after the putrefactio with the words: "He who wants to enter our Rosary and wants to see and pick there the white and red roses". For white and red are symbols for the perfect Philosophers' Stone.

Also Maier, in the discourse, made this theme of white and red follow the putrefaction with the words: "At the entrance of the rose-garden you will see Venus with her beloved Adonis; she coloured

the white roses red with her blood (emblem xli is dedicated to this motif); the dragon that watches over the garden of the Hesperides is also there".

These latter words connect the meaning of the emblems xxvi and xxvii with the meaning of the frontispiece. The source that Maier uses here, according to his own words in *Symbola Aureae Mensae*, was Jodocus Greverus, whose visionary description of the tiring journey in order to reach the garden of the Hesperides, breathes the same spirit as the *Aurora Consurgens*, which Maier had undoubtedly in mind when designing embl. xxvii, beside the direct source of the motto, the *Rosarium Philosophorum*.

### EMBLEM XXVIII

(fig. 28)

#### MOTTO

The king is bathed, sitting in a steam-bath,  
and he is freed from the black bile by Pharut.

#### EPIGRAM

King Duenech, shining with the weapons of the Green Lion,  
Swollen by bile, was horrible is his behaviour,  
Thereupon he sends for the physician Pharut,  
The latter promises him health and has a steam-bath prepared,  
Herein he bathes and bathes again, under the glass arch,  
Till, by the wet dew, he is freed from all bile.

#### SUMMARY OF THE DISCOURSE

In the human body there occur three cooking or consuming processes, namely in the stomach, the liver and the veins; three secretion processes correspond with them, motions, urine and sweat respectively. In the first process chylus is prepared, in the second chymus and in the third one a dewy substance; each is conducted to the respective discharge place of the body. The discharge products of the first process are thick, bilious and fat and are discharged via the bowels and when they get stuck, they are discharged by purgatives in a careful or moderate or forceful way. The second kind of secretion is liquid, thin, bilious and salt, and is excreted from the

veins into the kidneys and carried to the bladder and carried off by way of an aquaduct, and the sediment in urine is an indication of this. The third kind of excretory product is still finer and is usually carried off through the pores together with the sweat.

The Greeks and Romans set about to the discharging of just this last kind of excretory products. That is why there were so many kinds of games and exercises in use, like morning gymnastics, massage, wrestling, foot-race competitions, daily washing or bathing in the river or in bath-houses, of which there are still many magnificent buildings left in Rome, which we can more easily admire than imitate. An example of these are the thermæ of Diocletian.

There are just about as many kinds of cooking processes or consuming processes in metallurgy as in the human body; the first process takes place in the great year (in magno anno), that is in the revolution of the uppermost sphæra, the second one takes place in the lowest sphæra and the third one in the middle sphæra. The Philosophers found several ways to get rid of superfluous ballast; thus they apply washings, baths and sweating-baths, with which they reach the same results in Philosophical Work as the physicians obtain with that therapy in the human body.

That is why Duenech is put into the sweating-bath, to sweat there and to get rid of the residual products of the third cooking process. This king Duenech is melancholy and atrabilious and is not valued highly by the other monarchs (no more than the king of embl. xxiv, discourse), as he is tortured by a Saturnal sombreness and a Martial fury. Therefore it is Duenech's own wish either to die or to be cured. A physician is sent for with the promise of a high remuneration, who shoulders the nearly impossible task of curing Duenech; this is a kind of allegory which often occurs, however, in the writings of the Philosophers, e.g. with Alanus, Bernhardus, in the Allegory about Duenech and in other places.<sup>1</sup>

<sup>1</sup> Bernhardus is Bernhardus Trevisanus, see bibl. sub Trevisanus; his king allegory, to which Maier refers more detailed in the last part of the discourse of embl. XLVIII, occurs in Trevisanus *De Chymico Miraculo, quod Lapidem Philosophiae appellant*, printed in: *Theatr. Chem.*, I, 705-709.

The allegory about *King Duenech* is a small tract; printed in: *Theatr. Chem.*, III, 756-757.

Another king-allegory is the *Merlini allegory*, in: *Art. Aurif.*, I, 420-424, which has served as an example for Maier in embl. XLVIII; in embl. XXXI Maier uses an allegory about the sea-king.



It is not necessary to discuss details here; it is sufficient to establish which secretion process is meant by this bathing, for that is the pivot on which everything hinges. For in hot water baths the warmth that is penned up in the body, is carried back to the surface of the skin, and together with warmth, the blood. That is why the beautiful colour of the skin returns and that is also a sign that the black melancholy is gradually being driven away and that all vital fluids are being improved, so that after that the best red blood comes into existence. It is necessary to improve the whole mixing proportion in the body and, in order to obtain healthy blood, it is necessary to convert the cold and the moist things into warm and dry ones.

Some consider Cerdon to be the true monarch or the true king's son, but eventually they perceive from certain indications his real origin and development. The true Chemist must take care that he does not choose the wrong one. He has to choose the right king's child, even if the latter is not dressed in a gold garment, but is humble and unsightly, yes even if he appears in a lead-coloured, melancholy manifestation. But when he is well washed, his royal figure will appear, just as with Cyrus, Paris and Romulus, who originally got their education from farmers.

As regards the bath, you have to pay attention to whether it is a Laconian bath, which means a bath which rouses vapour and sweat, but in such a way that it does not burn the skin or block the pores, for in that case there is no result. For the rest, let nobody be troubled about the clothes with which the king has to be dressed after his bath, for Alcinous' daughter will dress the Sun's son, just as she did the shipwrecked Odysseus; and then the Son of the Sun will easily be recognized.

#### SOURCE OF THE MOTTO

*Processus Chemici aliquot*, in: *Theatr. Chem.*, III, 755-764; The second process of this (756-757), the allegory about the monarch *Duenech*, is the source for motto and epigram of the emblem. Its text reads:

"Dux quidam senex Duenech vocatus, cum in conventu magnatum se sperni cerneret, et profundum melancholicum infimæ auctoritatis, et nullius respectus esse, cum quibusdam fidelioribus amicis

suis consilium init, quomodo ab hoc atrabiliario temperamento se cavere, et sanguineum reliquis temperamentis præstantissimis induere possit. Amici ad consilium vocati, consideratis Ducis divitiis de vocando summo Medico Pharut deliberant; Vocatus itaque venit, ad Ducem deducitur, quo pro dignitate salutato, Medicum sic Dux alloquitur, Pharut Medicorum Princeps qui naturas et temperamenta omnium viventium cognoscis, et ut audio, immutare potes; audivisti quis sim, quibus imperem, et quanta sit mea progenies in universo mundo: Vides a Diis hanc mihi impositam calamitatem ut perpetua melancholia obruar, quæ me omnibus magnatibus reddit ingratum, et exosum: Gauderem enim lubens, sed vetat cerebri mei continuus et tristis motus: convivia frequentarem sed prohibet animi mei moeror, et nulla in corde meo quies: Hinc o Pharut meæ lacrimæ, hinc inquam contemptus, et perpetua corporis mei tabes. Hoc si tuum mutare, si temperamentum innovare meum poteris, faciam ut statim intelligas quantum tibi ornamentis et utilitatis accesserit. Ad hæc Pharut: Maxime Ducem grave est quod a me petis, factuque difficile, attamen edoctus meo malo, scio Dominantium petitiones, esse idem ac graviter imperare: Quapropter ut tibi satisfaciam, opus hoc difficile, longum, et quod fere omnes qui me imitari student, fallit, aggrediar, ea tamen lege, ut si obediens, et gratus. Constituto itaque tempore, cum aspectus Saturni esset ex opposito Solis, Pharut omnes exire iubet de domo Ducis, excepto quodam stultulo variis coloribus induto, quem ut Ducem recrearet ibi detinuit. Tunc Ducem in lectum mundum albissimis lintheaminibus indutum posuit, eumque optime tegit ne respirare posset, vel ex proximæ fornacis fumo enecaretur. Curabat autem Ducem per curationis angariam aqua limpida, et diaphoretica, ex qua in fætidos prorumpentibus sudores sed claros, et qui lintheamina candida variis maculis tingebant. Hæc videns Pharut erubuit præ gaudio. Postquam autem Dux foetidos vapores non eructaret amplius, et atra bilis in universo Ducis corpore soluta esset, cum stulto firmum præparavit lectulum, hoc Pharut ita adornavit: Primo pulvinar magnum posuit ex pennis Aulæ nigræ et juvenulæ, deinde cervicale ex plumis cygni, hæc tegit lintheamine subnigro, et Ducem ex primo lectulo diligenter elevatum, huc ponit, quem albissimo tegumento tegit, et optime omnia spiracula claudit, ne respirare ullo modo

possit. Duce in novo hoc lectulo calefacto, Pharut oleo foetido corpus et pedes eius inungit, donec tota atra bilis ab universo corpore ad capitis verticem pervenit. Dux interim sæpius sincopen patiebatur, quod ex colorum mutatione apparebat, Pharut autem aperto Ducis ore, palatum niveum invenit, iubet Ducem esse lætum dum dulci rasorio a capite atram bilem, et a palato nivem abradit. Hoc facto non cessat defatigatum Ducem inungere donec videat huius pessimi humoris radices una cum splene a corpore Ducis eradicatas. Denique tertium præparat lectum, in quo corpus Ducis demortui reponit, aqua et oleo mixto sulphure suo vivificat. Tunc Dux seipsum aspiciens vidit se nova natura sanguinea indutum, et turpi illa Melancholia exutum; atque supra omnes suos commilitones potentem”.

#### COMMENTARY

In the discourse Maier compares the cooking-processes, to be applied in metallurgy, with the cooking processes which take place in the human body and which have to be cured by the physician. The three cooking-processes occurring in the human body, in the stomach, liver and veins, agree with three excretory processes, discharge, urine and sweat, crude, fluid and very fine respectively. From Antiquity onwards attention was paid to the third excretory process, sweating, by means of artificial baths.

In the same way the philosophers apply washings, cleanings, baths and sweat-baths, in order to expel the superfluous fluid, just as the physician applies them to the human body. That is why Duenech too is placed in the sweating-bath, to be freed from superfluous fluid (analogous to the dropsic ore of embl. XIII). He is not valued with the other monarch on account of his Saturnal sombreness and Martial fury; therefore he wants to die or to be cured. So this curing process is taken in hand.

A summary of the *Duenech allegory*, which Maier used, reads as follows:

“There was an old duke, called Duenech. He saw himself despised in the meeting of monarchs, on account of his deep melancholy. After a deliberation with friends how this melancholy could be suppressed and how the blood with the other excellent temperaments could get the upper hand, he sent for the physician Pharut and offered him a

high reward, if he, Pharut, the prince of the physicians, could cure him. Thereupon Pharut said that it would be a protracted and difficult cure which only he could bring about and he promised to cure Duenech. They fixed a time to begin with it, namely when Saturn was in opposition with the Sun. Thereupon Pharut ordered everybody to leave the duke's house, with the exception of a little fool in gay-coloured garments, who was allowed to stay to entertain the duke.

After that Pharut put Duenech in a bed with white sheets and covered him well, so that he might not be killed by the smoke of the nearest furnace. Then he gave him clear water, in consequence of which Duenech began to sweat so strongly that the white sheets were completely stained. The black bile had been dissolved in the whole of Duenech's body, Thereupon Pharut prepared another bed for him, the bolster of which was filled with the feathers of a young, black eagle and the pillow with swans' feathers; on the bed a black sheet and a white cover were laid. Duenech was put in this bed and all air-holes were entirely closed so that neither sweat nor vapour might escape. This bed was heated and Pharut rubbed Duenech's body and feet with evil-smelling oil until the black bile had spread to the top of his head. From the change of colour it was clear that Duenech became unconscious several times. Pharut opened Duenech's mouth and rejoiced when he saw that Duenech's palate was white. At last he laid the exhausted monarch into a third bed and revived him there with water and oil, mixed with sulphur.

When Duenech looked at himself, he saw that he was freed from melancholy and had new, healthy blood, and that he surpassed all his fellow-soldiers in power".

This *Duenech allegory* is one of the king allegories, in which the whole transmutation process is summarized; a transmutation process which comes about in various fields at the same time; chemically, medically, psychically and cosmically.

Lambsprinck has also dedicated an emblem to the king in bed, with the motto: "Here the Father perspires freely, and the oil and the real Tincture of the Philosophers proceed from him"<sup>2</sup> (*fig. 71*). This emblem probably also originates from the *Duenech allegory* or a similar king allegory. Lambsprinck's emblems are strongly focused on the religious side of alchemy and he connects the secret of the Philosophers' Stone with the secret of the Trinity.

<sup>2</sup> Lambsprinck, *De Lapide Philosophico Libellus*, embl. XIV, fig. on p. 33: "Hic vehementer sudat Pater, Oleum et recta Tinctura Philosophorum ex eo promanat".

The picture of Maier's emblem represents Duenech, sitting with a crown on his head in a small steam-bath with a perforated bottom. Underneath steam is seen to be rising. This picture is not quite in accordance with the *Duenech allegory*, but taken from the *Merlini allegory*,<sup>3</sup> which, in a similar way, renders the transmutation process in the shape of a king. There the mortal remains of the dead king are placed in a vaulted space, which is perforated at the bottom, under which another, clean vessel is placed; after that the fire is fanned, till the king melts and lands in the undermost vessel through the opening in the bottom. Then the king rises and challenges his enemies.

Maier deems the *Merlini* and the *Duenech allegory* to be of the same tenor as the Eleusinian, Orphean and Egyptian mysteries.<sup>4</sup> The theme is always death, purification and resurrection, or, as Maier says, following this up:

"Our king should be seized and divided into extremely small parts, be washed with fire and water, and—after deposits and superfluous things having been removed—be put together again, after which he rises, young and stronger than before. The same can be read in the *Merlini allegory* and the *Duenech allegory* and in all such allegories".<sup>5</sup>

Maier uses this theme of death and resurrection of the king in several emblems in the *Atalanta Fugiens*. In embl. xxiv the king is devoured by the wolf and thrown into the fire, from which he rises, crowned. In embl. xxxi the sea-king is in danger of sinking into the deep waters and promises great treasures to his servants, if they save him. In embl. xlviii the *Merlini* king dissolves in the water and rises as the Philosophers' Stone. The *Rosarium Philosophorum* ends with a picture in which the Philosophers' Stone is compared with the risen Son of God, represented by Christ rising from a sarcophagus<sup>6</sup> (fig. 72). From such examples it appears how rich in allegories alchemical literature was, in order to express the closely interwoven transmutation processes of matter, cosmos and soul.

<sup>3</sup> *Merlini allegory* in: *Art. Aurif.*, I, 420-424 and source of embl. xlviii.

<sup>4</sup> M. Maier, *Arcana Arcanissima*, 169.

<sup>5</sup> Ditto.

<sup>6</sup> Fig. *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 418.

The melancholy of which Duenech has to be cured belongs to the planet Saturn, the cold, dark planet, which is farthest from the sun; therefore, as can be read in the *Duenech allegory*, the work is to be started when Saturn is in opposition to the Sun: one begins at the beginning, of which the melancholy, or Saturn, or lead, or the putrefactio are the symbols.

According to the epigram, "king Duenech shines with the weapons of the Green Lion". Here is the chemical starting-point for the *Duenech allegory* to be found. In the *Rosarium Philosophorum* it is said: "By no means will you be able to prepare the Stone, without the green, liquid Duenech, who seems to come into being in our minerals. O blessed, green colour, which produces everything".<sup>7</sup> In the *Rosarium Philosophorum* the said green colour in the minerals is put on a par with the green colour of plants and crops as a sign of growth and fertility. The word Duenech goes back to a word of Arabic origin, dueneg (duenez, duenum), which means vitriol; "Dueneq, id est vitreolum".<sup>8</sup> In a recipe book, taken from an Arabic source, the "green vitriol" is mentioned, as being necessary to dye glas gold-coloured.<sup>9</sup> The green vitriol is also called the "green lion". The *Rosarium Philosophorum* states that the true matter is only to be obtained in the green lion, which is also called Adrop, Azoth or the green Duenech.<sup>10</sup> In the *Rosarium* a picture of the green lion occurs, devouring the sun, with the subheading: "Ich bin der war grün und guldisch Löwe ohn Sorgen. Inn mir steckt alle heimlichkeit der Philosophen verborgen"<sup>11</sup> (*fig. 73*). The devouring of the sun by the green lion or the green dragon means dissolving gold in green vitriol.

Likewise the gold or the Philosophers' Stone lies hidden in king Duenech, who shines with the weapons of the Green Lion.

<sup>7</sup> Ditto II, 236: "Nullo tamen modo poteris lapidem præparare absque duenech viridi et liquido, quod videtur in mineris nostris nasci, O benedicta viriditas, quæ cunctas res generas".

<sup>8</sup> M. Berthelot, *La Chimie au Moyen Age*, I, 217, recipe 158 and 159, an Arabic-Latin lexicon from a 13th century ms. 6514, Bibl. Nat. Paris.

<sup>9</sup> Ditto p. 207, recipe from the *Liber Sacerdotum* (Bibl. Nat. ms. 6514, f. 41-51), recipe 104.

<sup>10</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 245: "In primis habetur in Leone nostro viridi vera materia, et cuius coloris sit, et vocatur Adrop, Azoth, aut Duenech viride".

<sup>11</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 399.

*EMBLEM XXIX*

(fig. 29)

## MOTTO

Just as the Salamander, the stone lives in the fire.

## EPIGRAM

The Salamander lives more vigorously in a red-hot fire  
 Without paying attention to your threats, Vulcan:  
 In the same way also the Stone, which was born in an ever burning  
 fire,  
 Does not shun the merciless glow of the flames.  
 The Salamander, which is cold in itself, extinguishes the fire and  
 gets off scot-free,  
 But the Stone is hot and is further helped by an equal heat.

## SUMMARY OF THE DISCOURSE

There are two elements in which animal life is possible: water and air; there are also two elements in which it is not possible for animals to live and those are earth and fire. The first two elements are of moderate composition in their first and second properties, the last two are extreme, for either they are very compact, like earth, or very thin, like fire. Objects are either too compact, on account of which they are inaccessible for other bodies or too thin, so that they are too accessible, on account of which they are penetrated and burn.

One can live in the caves beneath the earth, because air is also found there. In water live numerous kinds of fish and in the air, men, quadrupeds, birds, insects and worms. What is told about the hidden, wandering spirits of the earth, is quite different, as they are not animal beings.

No one but the salamander can live in fire. Now a salamander is something like a lizard, only slower, with a bigger head and of another colour, like I saw them in the Alps, where they came out of the chasms after a thunderstorm. A farmer told me that such an animal was called a "Molch". This animal is surrounded by a slimy fluid, on account of which it can go through fire without being harmed.

But the Philosophical Salamander is something quite different, however much it resembles the said animal. For the Philosophical Salamander is born in the fire and the common salamander is not. The common salamander can only stand the fire, because it has an excess of fluid. The Philosophical Salamander, however, is in itself hot and dry by nature. Everything reflects the nature of the mother, from whom it descends, and in this way one may establish the origin of something. Fire produces exclusively dryness and heat, therefore: its equals. In this way, cold mountain caves produce cold, wet worms. The Philosophical Salamander, on the other hand, likes fire, on account of its relationship with fire and the common salamander extinguishes fire, because its nature is contrary to the nature of fire.

Worms are said to develop in the smelting-furnaces of copper, but this is not to be taken literally, for fire destroys animal bodies and fire changes earth into glass and wood into ashes and further destroys all things, with a single exception, the substance Mercury.

As regards this, Vulcan is a grim executioner, who examines all things that are composed of the elements; only a few, much favoured by nature, escape his wrath, like the Salamander, which does not fear Vulcan.

Avicenna mentions several compound substances, which are all mixed unequally as regards the composition of the elements, as a consequence of which they are vulnerable to fire and other injury. But he says there is one thing, balanced in composition, which is just as warm as it is cold, just as dry as it is wet; and that not measured by weight, but by reality, as the physicians call it; and that is the one which represents more the passive than the active principle. When the fire in it wants to convert its antipole, water, into air, which is related to it, the earth prevents this effort, because the earth is related to the water. And the inner fire of this composition agrees with the judgment of the earth, because the earth is its best friend. Here the judgment of Vulcan ceases, who now tries to achieve his aim along a by-road, for he tries to turn the earth into ashes, but in its turn the water, which shows itself to be united with the earth on the one hand and with the air on the other hand, opposes it; however, on the other side the earth is related to the fire. Therefore anybody who would turn the earth into ashes, would



destroy the other elements at the same time (embl. XIX). And thus Vulcan ceased doing it, in order not to ridicule himself.

This body now is the real Salamander, in which the four elements are equally balanced. In the *Rosarium* Geber says about it: "The Philosopher wants to have this Mercurial substance also in a lifeless condition, but by nature his Mercury is present in the adorable Stone, as is clear to everybody". And somewhat further on: "The Philosopher also wants to have Mercury in a solid state, for who would deny that the substance of this precious Stone is very solid?" From this it appears that the Stone should be formed into the Nature of the Salamander by a hardening-process, that is to say, into a state of extreme solidity, on account of which the fire can be resisted. For the Stone cannot be a Salamander, as long as it has not learned to endure the fire patiently, and this takes a long time.

Emblem xxxv speaks of Achilles and Triptolemus, who also obtained the Salamander nature by a process of habituation. For habituation takes place under the influence of the other nature (as in embl. xx); ice cannot be hardened in the fire, but crystal can, because Nature has already made a beginning here. In the same way one may talk about watery, volatile Mercury, which, according to its Nature, can not be reduced to a solid state, unless by uniting it with Sulphur; this is the Philosophical Tinctura, which binds and reduces all spirits to a solid state.

#### SOURCE OF THE MOTTO

Avicenna, *Tractatulus de Alchimia*, in: *Art. Aurif.*, I, 454: "Philosophi hunc lapidem nostrum vocaverunt Salamandram, quia sicut Salamandra solo igne nutritur et vivit, id est, perficitur, ita et noster lapis".

"The philosophers have called this stone our Salamander, because, like a salamander, it is fed exclusively by fire and lives in it, that is to say is perfected by it and so is our stone".

#### COMMENTARY

The Salamander is the Mercury substance in its final stage, in its state of perfect indestructibility; the "executioner Vulcan" has no hold on it any more, that means it cannot be destroyed

by fire; this is the characteristic of the Philosophers' Stone: it has become equivalent to the fire.

Maier's emblem of the salamander occurs in almost the same form in Lambsprinck's emblems<sup>1</sup> (*fig. 74*), under the motto:

"The Salamander lived in the fire, and the fire changed the Salamander into the most excellent colour".

Lambsprinck says that by the Salamander is to be understood:

"the reiteration, gradation and amelioration of the Tinctura or the Philosophers' Stone, or rather its augmentation be understood by it".

"Augmentation" means that, when the Philosophers' Stone has once reached the final stage, perfection, in other words, when it has become Salamander, it converts all imperfection, with which it comes into touch, into its own perfection.

### EMBLEM XXX

(*fig. 30*)

#### MOTTO

The sun needs the moon, like the cock needs the hen.

#### EPIGRAM

O, Sun, you do not achieve anything alone, if I am not present  
with my forces,

Just as the cock is useless without the help of the hen.

And in my turn I, the moon, want your help,

Just as the cock is desired by the hen.

Foolish is he who would want to free from the bonds those things  
From which Nature urgently requires that they are united.

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<sup>1</sup> Lambsprinck, *De Lapide Philosophico Libellus*, Frankfurt 1625, embl. x, under the motto: "Salamandra vivit in igne, Ignisque hanc mutavit in optimum colorem;" the Salamander represents: "Reiteratio, gradatio et melioratio Tincturæ, vel Lapidis Philosophorum: Augmentatio potius intelligatur".

## SUMMARY OF THE DISCOURSE

In his writing about the soul Avicenna warns that for art only a fertilized egg may be used. That means that the female subject is of no value without the male force and vice versa. These two sexes should be united within the Philosophical enclosure, so that augmentation is obtained. The Philosophers use the comparison of the Philosophical work with a cock, because the potency of a cock, more than that of any other bird, agrees with the potency of sulphur; further because a cock may be at the head of a lot of hens and does not tolerate any rivals beside itself, in the conviction that it can cope with several hens.

The Mars bird descends from a young cock, which had to look at the Sun, in order not to see the adultery of Mars and Venus, and which changes so much in the fight that it fights its adversary to death. The Philosophical cock is the Sun, the Philosophical hen is the Moon. It is as necessary to unite Sol and Luna as cock and hen. The cock is dedicated to the Sun; it rises with the rising Sun and goes to sleep when the Sun sets. The cock repeatedly turns its eyes to Heaven and then raises its sickle-shaped tail-feathers; it fights for worms for its hens; it is the herald of light and it is a favourite of Latona, because it was present when she gave birth to Sol and Luna (embl. XI); therefore the cock belongs to mother and son.

But Sol, Luna and Latona represent chemical subjects and the cock and hen also. Cock and hen proceed from eggs and they lay eggs, from which cocks and hens proceed; in the same way the philosophical egg develops in moderate warmth, like the warmth of a brooding hen, into a bird. With other species of birds, the male bird also broods; the cock alone abstains from doing so and leaves all care to the hen. The latter hatches its young with great care and protects them; it eats in a hurry in order to prevent the eggs from getting cold; it protects the naked young ones under its wings and breaks too hard grains to pieces with its beak. All this happens to oblige man eventually with their eggs and young chickens.

The Philosopher goes to work just as cautiously. He purifies, regulates the warmth, through which the mixed factors alternately form the active and the passive principle, till, after a long time, the various colours become one colour and one essence. In this work

solutio, coagulatio, sublimatio, ascensio, descensio, distillatio, calcinatio and fixatio are then completed. Something that is hard and compact cannot be changed, therefore one should begin with dissolution (dissolutio). After that one should coagulate to a treacly mass (coagulatio). Then one has to separate pure from impure, to improve the humble, and what was low must become higher (sublimatio). Sublimatio is the most important thing; some parts ascend, that is the ascension (ascensio), other parts descend (descensio). The distillation follows, making the matter clear, and what lies on the bottom is made into ashes and after that both are made into a solid substance, which is the completion of the work. All these operations can be comprised in one word, which is: COOKING; just as chickens which run to all sides, come together under one motherhen, in the same way all operations come together under one conception which is: "women's work and cooking" (embl. III and XXII).

The Moon aims at being elevated to the height of the Sun and that is the pivote on which every thing hinges, namely a lasting marriage between Sol and Luna, and when that has been brought about, all relations, betrothals, unions, uncertainties will cease to exist. After that there will be only one bed and one body and there will be mutual love and a continuous peace and an insoluble union. Sol has no value without Luna, neither has Luna without Sol. Luna obtains from her husband Sol radiance, dignity and strength of body and soul. Sol receives from his wife Luna procreation and multiplication.

Therefore Rosarius says: "If in our Stone only one of them would be present, there would be no tinctura, and if there were one, it would not have any colouring power, apart from the colour already present, but the rest and Mercury as well would end in smoke, because there would be no room for catching the tinctura". And Geber says that if Sol and Luna are incorporated with art, they cannot be separated easily.

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 262 + fig. (fig. 75).

The picture of this emblem represents the union of a crowned man and woman in the sea. They personify Sol and Luna, as

appears from the sun- and the moon-sign beside them. The motto reads: *Coniunctio sive coitus*.

The epigram reads:

“O Luna durch meyn umgeben und süsse mynne  
Wirstu schön starck und gewaltig als ich byn.  
O Sol du bist uber alle liecht zu erkennen  
So bedarffstu doch mein als der han der hennen”.

As is obvious from the personification of Sol and Luna, Maier got his inspiration from the *Rosarium*; but at the same time he knew the source on which the *Rosarium* was based on this point: Senior, *Tabula Chimica* in: *Theatr. Chem.*, V, 194-195:

“Epistola Solis ad Lunam crescentem”.

This letter begins as follows:

“In tenuitate nimia dabo tibi de pulchritudine mea lumen, quo pervenitur ad perfectionem. Exaltatur enim per hoc ad omne altum. Dixit primo luna soli. Tu mei indiges, sicut Gallus Gallinæ indiget, et ego indigeo operatione tua o Sol, sine cessatione, cum tu sis perfectis moribus, pater luminarium, tu es lumen excelsum, dominus, et magnus. Ego luna crescens frigida et humida, et tu sol calidus et siccus . . . . .”

“With very great gentleness, I'll give you the light of my beauty, through which it comes to perfection. For by this it is entirely lifted to the heights. Thus the moon spoke to the sun at first. You need me like the Cock the Hen and I need your action, o Sun, uninterruptedly, as your nature is perfect, father of the lights, you are the lofty light and the great master. I, the waxing moon, am cold and moist, and you sun, are hot and dry. .”

#### COMMENTARY

The meaning of this emblem appears from the discourse; it is again the motif of the union of the opposites; the Sun, or the man or the combustible, dry, hot sulphur, is to be united with the moon, the woman or the cold, moist mercury. As Maier expresses it in his *Symbola Aureae Mensae*, the object is: “Create equality among the elements and you will have completed the work”<sup>1</sup> (*fig. 76*).

<sup>1</sup> M. Maier, *Symbola Aureae Mensae*, p. 450; embl. with the motto: “Elementorum fac æquationem et habebis”; in the picture a man is seen

In the quotation from Senior's *Tabula Chimica*, Maier's source for this emblem, Luna says: "ego indigeo operatione tua o Sol"; what the "operatio Solis" contains, becomes clear, moreover, from the text of the *Tabula Smaragdina*, which Hermes concludes with the words: "Completum est quod dixi de operatione Solis". (see the text of the *Tabula Smaragdina* in the commentary on embl. I. Embl. I and II both have their mottos taken from the *Tabula Smaragdina*).

The coniunctio Solis et Lunæ is represented in various stages, in countless manners and under various shapes. In his *Symbola Aureae Mensae* Maier depicts two variants (fig. 77 and 78). In the first emblem Hermes is standing with his hand outstretched pointing to the Sun and Moon-head, which are joined together by flames, with the motto: "His connection consists of Sol as Father, the white Moon as Mother, to which, as the third one, fire is added as governor".<sup>2</sup> In the other emblem from *Symbola Aureae Mensae* we see Arn. of Villanova pointing to a scene in which a man and a woman are holding out their hands to each other and are holding a wedding-ring in their joined hands; the motto of this emblem reads: "The Stone is obtained from the marriage of Gabritius and Beia".<sup>3</sup>

### EMBLEM XXXI

(fig. 31)

#### MOTTO

The king, swimming in the sea, calling in a loud voice:  
He who saves me will get a tremendous reward.

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in a monk's habit, representing Roger Bacon, who occupies himself not only with the theoretical side of alchemy,—as can be seen from the book he has under one of his arms—but also with the practical side, as appears from the pair of scales he holds in his other hand; in one of the scales is fire, in the other water. (The motif of elements in a pair of scales comes from Geber's theory about the necessity of obtaining an equilibrium between the elements.

<sup>2</sup> M. Maier, *Symbola Aureae Mensae*, p. 5; embl. with the motto: "Sol est eius coniugii Pater et alba Luna Mater, tertius succedit, ut gubernator, Ignis".

<sup>3</sup> M. Maier, *Symbola Aureae Mensae*, p. 319; embl. with the motto: "Lapis habetur ex matrimonio Chabrici et Beia". Gabricus and Beia are personifications for Sulphur and Mercury. The allegory about Gabricus and Beia occurs in the *Visio Arislei*, in: *Art. Aurif.*, I, 159-162; (see bibl.).

## EPIGRAM

The king, on whose head the crown pressed heavily,  
 Swims in the wide sea, and continually calls in a loud voice:  
 Why do you not come to my rescue? Why do you not all rush forward,  
 You, whom I can make happy, once I am saved from the waters?  
 Take me back to my realm, if you are sensible,  
 And no poverty nor any bodily disease will vex you any more.

## SUMMARY OF THE DISCOURSE

The art of swimming and the knowledge of literature were the pillars of civilisation in Antiquity, so that with regard to an uncivilized person the proverb would arise: "neque nare neque literas novit". By swimming one's body might be saved and by the knowledge of literature the happiness of one's soul might be increased. Swimming is useful to the soldier in time of war, the knowledge of literature is of use to the man of the world in time of peace. The animals have their natural means of defence, man has not; this is also applicable to the art of swimming. Young animals can swim by nature, but with the children of man, both old persons and strong men may perish on account of their not being able to swim. Man has to learn how to swim, in order to supplement artificially the incompleteness of nature in that way. If Dionysius had not known the "nare et literas", he would have perished as a castaway in the Gulf of Corinth, after his being expelled as tyrant of Syracuse, but by swimming he escaped from death by drowning and opened a school for the youth at Corinth, where he taught them literature and humanities; in this way the king became a teacher, in consequence of which the adage originated: "Dionysius at Corinth".

Neither would anybody have been able to hear the cry of the royal son of the Philosophers, if he had not been able to swim and nobody could have come to his rescue and he would have drowned. So the art of swimming is necessary and useful to man in any situation. For even if he could not save himself from the enormous waves of the sea, he would nevertheless have time to wait until he was saved by others. But the king about whom we are now speaking keeps himself afloat for a very long time and cries repeatedly, although he is heard or seen only by a very few, because the sea is so

wide and choppy. Sometimes he finds the support of a rock or crag, to which he clings when the waves threaten to overpower him.

Now one would wonder what kind of a sea it is? Well, it is the Erythræan or the Red Sea, situated beneath the tropic of Cancer. In this sea there are magnets, and therefore it is not safe for ships, loaded with iron to pass through it, as they may easily be pulled downwards by the magnetic power. As the king did not know this, his ship sank, by which the others perished and he alone escaped by swimming. He kept his crown, which sparkled with gems, and by which he could easily be recognized, so that he could be taken back to his realm.

But what rewards does this royal son want to be granted to him who restores him to his power? Surely not like that of Ptolemy, the last king of Egypt who, after his father had been restored to power by Pompey, rewarded the rescuer with death. No, this king gives health, recovery from diseases, preservation of life; he grants the horn of plenty, and honour and love. And who would not desire these—as they are no common, mediocre gifts, but the most beautiful in life?—unless he were stupid? And who would not swim out to help him, and stretch his hand out and pull him aboard? But take care that his diadem does not fall into the sea, for then he would not be accepted by his subjects. For then the gold-copper mixture would be ruined and the Bezoar Stone, which promises health to everybody, would have disappeared. That is why the *Rosarium* quotes Aristotle with the word: "Choose yourself a stone, the stone which the kings wear in their crowns, the stone the physicians use in order to cure their patients; for that stone is the one most related to the fire". For without curative power the crown would not be of any value.

But what should be done with the king after he has been saved? Then he should be freed from the water he has swallowed and this has to happen by means of sudorifics; from the cold he should be freed by the heat of fire, from the stiffening of his limbs by means of moderately hot baths, from hunger by a sensible diet and from other external complaints by medicines with an opposite effect. After that a royal marriage should be provided for, from which, in due time, the much desired offspring will be born, which, very beautiful and fertile, will surpass all ancestors in power, in royal



wealth, in the possession of nations and treasures; and it will conquer its enemies, not by wars, but by humanity, not by ambition, but by tolerance; a tolerance which is inherent in it.

#### SOURCE OF THE MOTTO

Not traced back in its entirety.

A statement about the calling of the stone, ascribed to Hermes, occurs in: *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 270:

"Quia lapis noster clamat, dicens, fili adiuva me, et ego adiuuabo te".

"Because our stone calls, saying, son help me, and I'll help you".

The king is the stone in a dissolved state in the primary matter (the sea): M. Maier, *Symbola Aureae Mensae*, 380:

"Verum philosophorum antimonium in mari profundo, ut regius ille filius demersum delitescit; Et quamvis exanimis ipse philosophorum Rex videatur, tamen vivit et ex profundo clamat; Qui me liberabit ex aquis et in siccum reducet, hunc ego divitiis beabo perpetuis".

"The true antimony of the philosophers is hidden in the deep sea just like that sunken royal son; And though the king of the philosophical substances seems himself to be inanimate, he nevertheless lives and calls from the depths: I'll make him happy with everlasting riches who frees me from the waters and brings me onto dry land".

This is the call of the Stone and the call of the soul, imploring for redemption and restoration to its royal dignity. Maier's text shows connection with *Psalm* 69, 3: "Infixus sum in limo profundi et non est substantia, veni in altitudinem maris, et tempestas dimersit me". "Save me, o God! For the waters have come to my soul. I have sunk into unfathomable mud, where there is no foothold; I have come into the depths of the waters, and the flood sweeps over me".

#### COMMENTARY

As appears from the discourse and from the source of the motto, the king is the gold calling for rescue from the Mercury substance and at the same time is the soul calling for redemption from the "depths of the waters".

This emblem is of the same nature as the king allegory of embl. XLVIII. Embl. XLVIII is a mixture of the *Merlini allegory* and the allegory of Bernhardus Trevisanus. In the *Merlini allegory* the alchemical process is represented in the shape of a king, who falls ill by drinking too large a quantity of water—analogous to the king swimming in the sea from embl. xxxi—and is subjected after that to several medical treatments, as a consequence of which he dies, but afterwards rises strong and powerful. In the allegory of Bernhardus Trevisanus just mentioned, the Chemical King is compared with Christ, who dies and rises.

The last two lines of the epigram of embl. xxxi are based on the *Merlini allegory*: "Take me back to my realm, if you are sensible. And no poverty nor any bodily disease will vex you anymore"; thereby the connection between embl. xxxi and embl. XLVIII is accentuated with its polyvalent meaning of the king as gold, as medicine for body and soul, as soul and as Christ.

In *Tractatus vere Aureus* Hermes also mentions the king as gold and his helpers as the other metals, all of which possess a common realm.<sup>1</sup> In his *Tractatus de Igne et Sale* Blaise de Vigenere speaks of the sea in the following way: "For the sea removes all human diseases, because the sea, which is called the tear of Saturn and the fifth element by the Pythagoreans on account of its bitter salinity, is nothing else but Salt which is dissolved in the water".<sup>2</sup> The salt is the quintessentia of the alchemical opus, by which one should draw a parallel to Christ, who called himself the salt of the earth; the salt, dissolved in the water, is the sea-king of the emblem, who calls rescue from the primary matter, just as it is pictured by Maier in the background of the picture of embl. xxv.<sup>3</sup>

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<sup>1</sup> Hermes Trismegistus, *Tractatus vere Aureus*. . . . a quodam Anonymo Scholiis illustratus, in: *Theatr. Chem.*, IV, 672, "Rex est aurum. Ejus autem, fratres sunt cætera inferiora metalla. Regnum omnes possident commune" etc.

<sup>2</sup> Blaise de Vigenere, *Tractatus de Igne et Sale*, in: *Theatr. Chem.*, VI, 122: "Quod mare lavat omnia hominum mala, quia mare a Pythagoricis propter amaram suam salsedinem lachryma Saturni et quintum Elementum vocatum, nihil aliud est quam Sal in aqua dissolutus".

<sup>3</sup> The motif of the sea-king, who swims in the sea with his arms outstretched, also occurs in the background on one of the pictures in *Splendor Solis* (Br. Mus., Harley ms 3469).

*EMBLEM XXXII*

(fig. 32)

## MOTTO

As coral grows under water, and, exposed to the air, gets hard, so also the stone.

## EPIGRAM

A moist plant, living under the waves of the sea near Sicily,  
Multiplied its branches in the tepid water.  
That plant is called Coral, and gets harder,  
When Boreas sends frost from the cold North.  
It becomes stone, with many ramifications and has a red colour:  
This is a suitable image for the Stone of Nature.

## SUMMARY OF THE DISCOURSE

The Philosophers call their stone vegetable, because it grows and multiplies like a plant. This seems incredible to ignorant people, because stones do not live and grow in that manner and have nothing of a liquid metal in them. The unknown is considered to be impossible, in the same way, as one measures the immensity of the Universe by one's own comprehension. Who would believe that a stone can grow under water, or that a plant, which has grown under water, becomes stone? Who would believe that, if it were not proved by tradition and experience? Where does the petrifying or colouring force come from, by which coral petrifies and gets colour? Does that force belong to earth, air, or water? Under water coral is like a plant, soft and pliable, but nevertheless of an earthly nature, but when it is cut off and exposed to the air, it becomes hard and fragile like stone. This is caused by the cold, dry air of the north wind, drawing the superfluous moist from it. The earth-body that remains is hardened by the properties of earth, that is by cold and dryness. Only earth causes contraction, and air and water do not do so, for each element has its own properties.

Moreover, the sea gives three more curative stones in various places, which are partly vegetable, partly animal, but what is more, they are formed by the secrets of Nature, like, for example, pearls,

amber and ambergris. The origin of pearls is known to us. Amber is collected on the Scandinavian coasts, after a strong north-westerly wind has blown, which without doubt washes it through the water and throws it onto the shore, after it has been welled up by the earth. Sometimes gold and silver are found in this amber; sometimes flies, gnats, spiders, butterflies, frogs, and snakes are locked in—I myself have 120 globules of amber with these things in them—and these happenings are influenced by the heavens. Ambergris is found in a similar way on the East and West Coasts of India. Some say that it comes from the juice of trees, but nobody has ever seen an amber tree, and for the origin of amber we refer to subterrenean veins or stones, just as we refer for the origin of pearls to the animal kingdom and for the origin of coral to the vegetable kingdom.

The Philosophers' Stone may be compared with all these things, and especially with coral. For just as coral grows in water and gets its food out of the earth, in the same way the Philosophers' Stone grows out of the mercury water and what is earthy in it serves as food for the Stone and the superfluous fluid is drained away. Just like coral, the Stone gets a red colour, when it becomes solidified. This colour was called coraltincture in Antiquity. In the same way the Stone, in its last stage, is solid and red like coral and is then called tinctura and has a colouring power. The coral gets hard and has its origin in dryness and coldness; the Stone gets hard and has its origin in dryness and heat. And when the Stone is increased, it becomes fluid, this contrary to all other stones, which can be made fluid, but become glass.

Just as coral may be used for several potent medicines, so the Philosophical Coral bears the powers of all herbs, because it possesses as much curative power as all herbs together. For the heavenly Sun, which granted power and curative action to all plants, gave more to this son and substitute than to all others. It is the Philosophical Coral, vegetable, animal and mineral, which keeps itself hidden in the vast sea and is not recognized, if it is not brought under the eyes and put into the hands of ignorant people. But the Philosophical Coral has to be cut very carefully under water, so that the juice and blood is not lost, and there remains nothing else but earthly chaos, without its own true form.

The only big difficulty in catching coral is to separate the superfluous

liquid; for this liquid kills the Stone and prevents the coral from becoming hard and red.

### SOURCE OF THE MOTTO

*Allegoriae super Turbam*, in: *Art. Aurif.*, I, 156-157:

"Corallus est quoddam vegetabile, nascens in mari, radices et ramos habens, et generatur humidus. Vento autem Septentrionali flante, indurescit, et fit corpus rubeum, quod cum videt, qui per mare navigat, secatur ipsum sub aquis: cum vero exit, vertitur in lapidem, cuius color est rubeus, et aptantur in lapides Indorum quoque, vulgus valde utitur eo. Simili quoque modo utuntur scilicet corallo nostro Philosophi in arte nostra: sumunt enim ipsum, et terunt fortiter, et in aqua maris eum per 21 dies imbuunt, et in balneo cum multa humiditate, donec spiritus eius tingens emineat, dimittunt: et hunc spiritum sumentes in vitreo vase reponunt, et dimittunt fecem quasi mortuam: et tamen nec albam nec rubeam. Postea ponunt in sphaeram eam, quam cribrum vocamus. Deinde cum aqua maris tepida imbuunt, et hoc septies iteratum abluendo et sublimando, donec formam salis candidissimi recipiat: quo facto reddunt ei spiritum tingentem. Et deinde ponunt ipsum in loco humido, donec rubescat, et fiat eius spermale, et de hoc ponunt philosophi super vitrum, et facit ipsum infrangibile. Et cum ponitur super argentum, vertit ipsum in aurum obrizon".

"Coral is a kind of plant, which grows in the sea, which has roots and branches, and grows wet. But when the north wind blows, it becomes hard and becomes red, solid matter, and when a navigator sees it, he cuts it off under water; when it comes out of the water, it changes into stone, the colour of which is red, and the Indians employ it as stones, and the mass of the people uses it as well. In the same way the philosophers use our coral in our art: they take it, rub it vigorously and soak it in sea-water for 21 days, and put it away in a bath with much fluid (analogous to the bath of Duenech in embl. xxviii; that bath was a vitriol solution. Also analogous to the water in which the king of the Merlini allegory from embl. XLVIII dissolves), till his dyeing spirit (gas) appears: they take this gas and return the deposit to the glass vessel and put this away as a dead sediment, which is neither white nor red. After that they put it into a round globe, which we call a sieve. Afterwards they imbue this

deposit with tepid sea-water and this is repeated seven times by washing and sublimating (analogous to the washing of Latona in embl. XI; and with the seven bathings of Naaman from embl. XIII), till it adopts the shape of the whitest salt: when that has happened, they again add the dyeing gas. And after that they put it (the mixture) in a humid place, till the red colour appears and seed comes into being, and of this they put something on the glass and in consequence of this the glass becomes unbreakable. And when it is united with silver it changes the silver into pure gold".

This needs no further explanation.

### EMBLEM XXXIII

(fig. 33)

#### MOTTO

The Hermaphrodite, resembling a dead person, lying in the dark, needs fire.

#### EPIGRAM

Look, the two-headed Hermaphrodite resembles a dead person.  
 When his moistness has been taken away from him:  
 When he hides himself in the dark night, he needs fire.  
 Give it to him and life will return immediately.  
 All the power of the stone lies hidden in the fire,  
 All the power of Sulphur in the gold, the power of Mercury in the  
 silver.

#### SUMMARY OF THE DISCOURSE

From the secrets of Nature it is known that, when winter comes, the frogs and swallows hide under water and remain lying there as if they were dead. With the renewed warmth of the sun in spring, feeling and movement return to them. When one finds them during the winter and takes them to a warm space, they begin to move, as if it were already summer. From this it appears that it is exclusively the warmth from outside which they lack and that this outside warmth is able to rouse the inner warmth and put it into operation.

In the same way the Philosophers speak of their Hermaphrodite, who lies in the dark and seems to be dead and needs the warmth of

fire. The Philosophers mean by "lying in the dark" the shadowy, cold winter, which means blackness as a sign of coldness (the putrefactio), from which he has to be brought to a state of whiteness by increasing the force of the fire, after which he has to be brought to redness by a still stronger fire. "For without fire nothing comes into existence", Bodillus<sup>1</sup> says in the *Turba*. But a too hot bath is deadly, a too cold bath puts to flight, and only a moderate bath is beneficial for the body. Likewise Bonellus says:<sup>2</sup> "All things which live by God's will, die in their turn; thus that nature, from which the moistness has been taken away, when it is put away during several nights, resembles a dead person, and then that nature needs fire, till the spirit of that body has been changed: then the matter becomes like a dead man in his grave. When that has happened, God gives body and soul back and frees it from all imperfection, fortifies it and perfects it. Therefore that nature ought to be burnt without fear". So it is thus that the fire, which burns all other things, works constructively in this case and gives new life, where it kills all other life.

The Phoenix is unique, it renews itself in the flames and rises revived from the ashes. It is only known to the Philosophers; it is burnt and called back to life. What other people invent about the Phoenix is pure phantasy. The Phoenix, however, is the Hermaphrodite with the mixed nature, of which the Philosophers speak; it has a male nature and a female nature, one of these natures passes into the other one by the addition of heat, and in this way a woman becomes a man.

That this happens in the Philosophical Work need not be a surprise, as some *people*, if we may believe the stories, also change their sex. Thus the poets tell us about the sex change of Cenea Iphis and Tiresias, described by Pontanus and Ausonius. During the consulates of Licinius Crassus and of C. Cassius Longinus a girl was made into a boy. And in Pliny Licinius Mutianus says that he saw a man in Argis who was called Ariston, but who was called Aristusa before and had been married as a woman, but afterwards became a man and then married a woman. Pliny says that he himself saw a woman in Africa, who on her wedding-day changed into

<sup>1</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 140-141.

<sup>2</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 109-110.

a man, named L. Cossicius. This is all true and provable. For by the heat the sexual organs are driven out of the body, and as a woman is much colder than a man, they stay hidden in the body of a woman. This is also the reason why Nature hesitates, uncertain whether to produce a man or a woman. The warmth, which increases in force and movement at the same rate as the growth, makes the hidden organs appear and become visible. In the same way, a woman is made into a man in the Philosophical Work, namely by adding warmth to the Hermaphrodite, by which the female nature is converted into a powerful male nature, in which nothing weak is inherent. Thus we saw how a famous surgeon Caspar Tagliacotio from Bologna, made a hermaphrodite into a man by making an opening for the penis and by closing the female opening.

But the Philosophers do not need these operations; for they speak of female where the coldness and moistness of the Moon is present; and of male where the heat and dryness of the Sun is present. And where all four properties are present at the same time they speak of a Hermaphrodite. Thus the transformation of the woman, that is of the cold and moist, into the man, that is the hot and dry, can be easily brought about, and that exclusively by adding warmth; for heat separates the superfluous fluid and imprints its own image upon the Philosophical Subject, that is the *Tinctura*.

#### SOURCE OF THE MOTTO

*Turba Philosophorum*, in: *Art. Aurif.*, I, 109: Sententia XXXIV, Bonellus: "Cuncta quæ vivunt Deo sic volente, etiam moriuntur: propterea illa natura, cui humiditas adempta est, cum per noctes dimittitur, mortuo similis est, et tum illa natura igne indiget, quousque spiritus corporis illius revertatur: et tunc fit pulvis mortuo similis in suo tumulo. Hoc peracto, reddit Deus spiritum et animam sibi, et omni liberat infirmitate, confortat eam et emendat.<sup>3</sup> Oportet igitur naturam

<sup>3</sup> The text here quoted from the *Turba* is, according to Ruska's classification, Version C of the *Turba text* (see bibl.). As is clear from part of this quotation, which cited Maier in the discourse of this emblem, he also quoted version B or C from *Art. Aurif.*, p. 27 and 109 respectively. However, version A is a little more complete in approaching the earliest known Latin manuscripts and there follows on this phrase as supplement: "Quemad-



illam comburere absque timore, donec cinis fiat: qui cinis aptus sit recipere spiritum et humorem suum, donec vertatur in pulcherrimum colorem, qui omnia vincit et superat: et si ipsum regeritis subtiliter, multa ab eo procedent eo quod æs ut homo corpus habet, et spiritum hominis”.

“All things that live by God’s will, die in their turn: thus that nature, from which the moistness has been taken, when it is put away during several nights, resembles a dead person, and then that nature needs fire, till the spirit of that body has been changed: and then the matter becomes like a dead man in his grave. When that has happened, God gives body and soul back and frees it of all imperfection, fortifies it and perfects it. Therefore that nature ought to be burnt without fear, till it becomes ashes: ashes which are suitable to receive its spirit and fluid, till it changes into the moist beautiful colour, which conquers and dominates everything: and if you treat them in a refined way, many things will come forth from them, because the ore has a body like a man and the spirit of a man”.

*Ditto*, 110: “. . . . . dixere philosophi, quod æs cum comburitur fit melius quam fuerat”.

“. . . . the philosophers said that the ore, when it is burnt, becomes better than it was”. In the epigram Maier says: “All the power of the stone lies hidden in the fire”.

#### COMMENTARY

The Hermaphrodite is the same as the Rebis, as is clear from the epigram of embl. xxxviii; the Hermaphrodite symbolizes the contrast Sulphur-Mercury. The epigram (xxxiii) mentions three things at the end: the fire, Sulphur and Mercury. By the heat of the fire the contrasts should be melted into a Unity.

Thus Maier says at the end of the discours that the Hermaphrodite is present where all four properties are present, namely the coldness and moistness of the Moon and the heat and dryness of the Sun. Fire should make these four properties into a unity, “for without fire nothing comes into being”, thus Maier quotes Bodillus

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modum homo post resurrectionem fortior fit et iunior quam fuerat in hoc mundo”; in the same way as man becomes more powerful and younger after the resurrection than he was in this world (*Theatr. Chem.*, V, 25).

from the *Turba*. In the second part of the discourse Maier applies the motif of the four properties to human relations; he has obviously taken this from Bodillus, as mentioned above, who develops the theme of contrasts and properties in the field of the human body and the reproductive process:

“May you know that without composition nothing comes into being. After that seed proceeds from blood and desire, and is fed by the warmth and moistness of the blood. After forty days, however, the embryo is formed. And if there were no moistness, the seed would not be dissolved and no embryo would proceed. God, however, formed that blood as food for the seed, till an embryo is formed, an embryo, which, after its birth, is exclusively fed with milk, as long as it is still small (ditto embl. xxxv); and it develops, in proportion to the increase of natural warmth, into a young man, after its bones have become strong; and attaining this is enough for him.

In the same way you have to set to work in your art, knowing that nothing is achieved without warmth. But a severe heat makes your substance vaporize and coldness makes it perish. A moderate warmth, however, is pleasant for the body and by it the veins are made supple and as a consequence the innate warmth is fed and fortified”.<sup>4</sup>

This moderate, cherishing warmth also rouses the frogs, mentioned by Maier in his discourse, from their winter-sleep; this motif in the discourse, which strikes us as anecdotal, probably also points to a deeper meaning of the frog, namely to the meaning of the toad related to the frog, as mentioned in embl. v. That toad, which is nursed by a woman, is also the toad that is found in a dark quarry with a gold chain. He represents the spirit of light, which lives chained in, in the dark matter.

The Hermaphrodite is the symbol of the unity of the Universe;

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<sup>4</sup> Bodillus, *Turba Philosophorum*, sententia LXVI, *Art. Aurif.*, I, 140-141: “Scitote quod absque complexione non generatur aliquid. Sperma denique ex sanguine et libidine generatur, et nutritur caliditate et humiditate sanguinis: Post quadraginta vero dies formatur fœtus. Et nisi esset humiditas, non solveretur sperma, nec procrearetur fœtus. Illum vero sanguinem constituit Deus ad nutrimentum spermati, donec fœtum producat, qui productus non nisi lacte nutritur quandiu parvus est: et quanto plus calore naturali exurit, tanto plus ossibus confortatis in iuventutem ducitur, ad quam perveniens sibi sufficit. Simili modo oportet vos in hac arte laborare, scientes nihil absque calore generari: sed calor intensus exhalare facit, frigus vero perire. Temperatus vero calor est suavis corpori, et per eum lenificantur venæ, et calor innatus alitur et augmentatur”.

a unity, which, however, manifests itself as a duality, as an active and a passive principle.

"Unde hic Lapis Animatus Rebis vocatur, cum in se contineat perfectionem omnis Rei: et vocatur Ovum propter rotunditatum, cum sit Sphæricum, vel quia gerit formam et figuram majoris Mundi, qui est sphæricæ figuræ, et omnia interiora sub se continet".<sup>5</sup>

"Hence the Animated Stone is called Rebis, as it contains the perfection of everything: And it is called the Egg on account of its roundness (analogous to embl. VIII), as it is spherical, or because it has the form and the depiction of the Macrocosm, which is spherical and contains all lower things" (analogous to embl. XXI).

### EMBLEM XXXIV

(fig. 34)

#### MOTTO

He is received into the bath, and he is born in the sky,  
But having become red, he strides over the waters.

#### EPIGRAM

The bath shines because of the conception of the child, and the sky  
because of his birth,  
And after that, red, he strides over the waters,  
And he becomes white on top of the mountains,  
He who continually remains the sole care of scientists.  
He is a stone and he is not a stone, and when somebody possesses  
this noble gift of heaven,  
By a present of God, he will be happy.

#### SUMMARY OF THE DISCOURSE

A divine origin is ascribed to some people, out of flattery. Thus, for example a divine origin is fathered upon Alexander the Great; he was alleged not to be the son of Philip of Macedonia, but of Jupiter Hammon; Romulus and Remus were alleged to be sons of Mars, and Plato to be the son of a virgin Perictio, who became preg-

<sup>5</sup> *Tractatus Aristotelis Alchymistae ad Alexandrum Magnum, de Lapide Philosophico olim conscriptus, et a quodam Christiano Philosopho collectus, in: Theatr. Chem., V. 791.*

nant by looking at Apollo. In this way, the pagan peoples wanted to show that they took their origin from the gods, just as Thessalus, the son of the famous physician Hippocrates, wanted to persuade the Athenians of the fact that he was a son of Apollo. This is unbelievable for us; although there were heroes, their immortality was a fiction, which originated from the flattery of their subordinates.

The unusual conception and birth of the Son of the Philosophers is something quite different. He is begotten in the bath and born in the air. As regards the bath: women who are barren of too great coldness and dryness also profit by hot baths, by which they become fertile. Others again say that the Philosophers' Son is begotten on the bottom of the vessel and that he is born in the helmet (alembicum). This is a very remarkable phrase, for when there is bath-water, it is not found at the top nor in the middle of the vessel, but at the bottom. In the helmet there are the airy vapours. That is why they say that he rises in the helmet after the conception, where the birth takes place in a white colour.

On the bottom of the vessel the blackness prevails, of which Rosarius says: "The conception takes place when the earth is dissolved into black matter and starts retaining a little bit of Mercury; then the male is active in the female, which means: then Azoth is active in the earth". And shortly after that Rosarius says: "Conception and union take place in the putrefaction on the bottom of the vessel and the birth of the issue takes place in the air, in the top of the vessel, that is in the helmet". For the conception in the bath means nothing but the putrefactio in the dung. And after that Rosarius says: "The body accomplishes nothing if it does not become matter, and this can only happen with Mercury, and the putrefactio is only brought about by the very tepid fire of warm, moist dung and by nothing else, so that nothing rises, for if something would rise, there would arise a separation of the parts, and that should only happen when the male and the female are completely united and when the one receives the other. The sign of this is the blackness at the surface and that is also the sign of the complete solution". His birth is white because it happens on the top of the mountains, which means in the air or in the top of the vessel. Rosinus ad Euthiciam explains this as follows: "Take the things out of their minerals and lift them to higher places and send them from

the tops of the mountains and carry them back to the roots". And slightly further on: "By mountains the pumpkin-shaped receiver (cucurbita) is meant and by the tops of the mountains the helmet (alembicum). To send from the top of the mountains means to catch the liquid over the helmet in a receiving flask (to distil). To carry back over the roots means carrying back over that from which it has sprung. The pumpkin-shaped receivers are called mountains, because silver and gold are found in the mountains. Thus in these mountains, which are called cucurbitæ, their Sol and Luna is also made".<sup>1</sup> He continues: "After that he becomes red and strides over the waters, which means: he strides over the metals, which have been made fluid in the fire, entirely like the Mercury-water, for he is the master of the waters over which he reigns, just as Neptune does over the seas. Mercury is the king of the sea and the owner of the mountains" (analogous to the sea-king of embl. xxxi).

About Xerxes it is said that he sent a deputation to the sea and to the Mons Athos, on his voyage to Greece, in order to conjure them not to cause damage by their waves and their flames, because otherwise he would punish sea and mountain. When Xerxes' ships were shipwrecked all the same, and a fire on the Mons Athos destroyed a number of men too, Xerxes flew into a passion, and, as if he were the master of sea and mountains, he ordered them to be punished and he had a big piece of rock thrown into the sea. This was more audacious than wise.

But the one we talk about frees all waters from obstacles and he does not do so by words, but by deeds, and he strides freely over the waters (like Christ did), however spacious they may be, and he makes the waters stiffen, so that they become hard and can bear his triumphal carriage, whereas previously ships had sailed there. He is the one who levels mountains and valleys and does not fear the flames of the fire. He spans the world from the Pillars of Hercules to the utmost limit of India, to the Pillars of Dionysus.

#### SOURCE OF THE MOTTO

Senior, *Tabula Chimica*, in: *Theatr. Chem.*, V, 221-223; further *Scala Philosophorum*, in: *Art. Aurif.*, II, 173: "Nam ut dicit Mar-

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<sup>1</sup> Rosinus ad Euthiciam, in: *Art. Aurif.*, I, 275.

chos: Cum suam biberit aquam adurentem, denigratur, manetque, ut prædixi, in umbra purgatorii cum noctibus. Concipit autem in balneis, et parit in ære, deinde rubescens, graditur super aquam, et super cacumina dealbatur, et fit albus levis, et æreus, qui prius fuit gravis, siccus et obscurus ignis, exaltato sole incalescit ær et arescit. Unde Psalmus: Exhibit spiritus eius, et revertetur in terram suam, in illa die peribunt omnes cogitationes, id est, dominationes humorum. Ex quo tunc versa sunt in terram, et abierunt in sicco flumina, eo quod volans cecidit in nidulum, unde prius exivit”.

“For, as Marchos says: When he drinks his burning water, he will become black and remains, as I have explained, in the shadow of the purgatory with the nights. He conceives, however, in the bath, and gives birth in the air, and, becoming red afterwards, he strides over the water, and is made white above the tops, and becomes white, light and airy; the one who was heavy, dry and dark at first, becomes hot by the exalted sun and becomes dry. That is why the Psalmist says: his spirit went out and returned to his earth; on that day the thoughts perished, that is, the dominion of the waters. Thereupon the rivers turned to the earth and dried up, as a consequence of which the bird fell back into the nest, from which it had flown up before”.

### COMMENTARY

The Stone is conceived in the bath, which means that the Stone in the initial stage of its development, is dissolved by the tepid, moist warmth of baths; the Stone is born in the air means that by heating the substance the fine matter rises in the retort as vapour.<sup>2</sup> This process is taken from metallurgy, from cooking, vaporizing and distilling. However, the last line of the motto: “Having become red he strides over the waters” evokes associations with Christ striding over the waters. Again and again the analogy between the Phi-

<sup>2</sup> *Consilium Conjugii, seu de Massa Solis et Lunae*, in: *Theatr. Chem.*, V, 472: “Et inter alia quoque Marcus dicit: Concipiunt in balneis, significat calorem lentum et humidum balneorum, in quibus sudat lapis in principio dissolutionis suæ paulatim, atque pariunt in ære, significat superiorem thalamum scilicet alembici quia generatio hujus tincturæ est in ære alembici, superiori, et gradiuntur super mare, et manent in montibus et sepulchris suis”.

losophers Stone and Christ representing the Stone returns. Also the expression in the epigram: "He is a stone and he is not a stone" renders the polyvalent meaning of the Lapis. It is the *tinctura*, the *aurum potabile*, the *Sapientia*, the purified soul, the Christ, the centre of the circle and the Phoenix.

The water in which the Stone is conceived is the primary water, from which everything arises: the *Rosarium Philosophorum* calls it the water as is mentioned in *Genesis*, the water over which the spirit of God floated.<sup>3</sup> It is the *aqua mercurialis* from which the four elements separate out. The water purifies and effaces sins (embl. III, XI and XIII respectively, the washer woman, Latona and Naaman). The water is the deep primary water, in which the soul is in danger of becoming submerged (the sea-king of embl. xxxi). The water is ambivalent in its meaning: it kills and rouses to life, as is clear from the *Merlini allegory* (embl. XLVIII).

Besides the motif of the water, the theme of the circular movement comes to the fore in embl. xxxiv; in other emblems it returns in other shapes, as in embl. xvii, with the motto: "A fourfold fire-ball controls this work": further in embl. vii with the motto: "A young bird came into being, flying up from the nest, and fell back into the nest again"; and in embl. xxxvi, with the motto: "The Stone has been thrown onto the earth and lifted onto the mountains, it lives in the air and feeds in the rivers, that is, Mercury"; and embl. xlili with the motto: "Listen to the garrulous vulture, which does not deceive you at all".

The Stone of embl. xxxvi is represented in the picture as a shaped, rectangular stone, planed into regular shapes by the many operations it has undergone. Unformed is the Stone that Saturn vomited in embl. xii; that is the rough, unworked matter of the initial stage. The symbol of unformed and formed stone has remained the image of the human soul up till now in Rosicrucianism and Freemasonry: this is the rough, unhewn stone which has to be worked with hammer and chisel, till a perfect cube comes into being, in which the arrangement of the Cosmos is reflected.

The motifs from embl. xxxiv refer to the processes of the purifi-

<sup>3</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 314: "Genesis: Ex aqua omnia facta sunt, et super aquam ferebatur spiritus dei, et principium generationis hominis ex ea".

cation and transmutation of the metals and the aspiration to light and perfection of the soul. The symbols of the circular processes in matter and spirit, as Maier expresses them in his *Atalanta Fugiens*, originate after all, in all their variations, from the phrase of the *Tabula Smaragdina*: "Sic superius, sic inferius".

### EMBLEM XXXV

(fig. 35)

#### MOTTO

Just as Ceres accustomed Triptolemus and just as Thetis accustomed Achilles to stay under the fire, so the master accustomed the stone.

#### EPIGRAM

Look how Triptolemus and Achilles, hardened in battle,  
Learnt to suffer scorching heat, at the instruction of their mother.  
The divine Ceres hardened the one, Thetis the other, in the fire by  
night,

While in the day-time she offered her breasts, rich with milk;  
Let the beatific medicine of the Wise become accustomed in the  
same way,

So that he may enjoy the fire, just as the child the breast.

#### SUMMARY OF THE DISCOURSE

In a public meeting the Spartan legislator Lycurgus showed the great importance of the formation of customs. As an example he gave the case of the young twin-dogs. He put a plate with porridge and a living hare before them; the one dog did not pay attention to the porridge and chased the hare; the other dog took no notice of the hare, but began to eat the porridge; each one as it was accustomed to. From this one may conclude, Lycurgus said, of how great an influence education is, the natural ability being equal.

In the same way nature should be improved and brought to a higher plan, for, like wax, nature can be formed for better or for worse. This law also holds good for plants, herbs and, although rarely, for minerals and metals too. However difficult it may be, the Philosophers nevertheless harden their Stone in the fire, as they mention in many places of their books. For, just like a child,



the Stone ought to be nourished by mother's milk. That is why Emiganus<sup>1</sup> says: "Look at the suckling child and do not hinder it". And Bodillus<sup>2</sup> says: "The fruit that has made its appearance, ought to be fed on milk and on a soft fire as long as it is small, and after that it should be gradually accustomed to fire. It should be heated more as its bones grow stronger and it becomes a young man". And Arnoldus<sup>3</sup> says in the *Rosarium*, book I, chapter 7: "This medicine should be cooked dry over the fire and be fed by fire just as a child ought to be fed with mother's milk".

This is the same as the old Philosophers meant with their allegories about the throwing into the fire and the hardening of Achilles and Triptolemus in the fire, so that they became invulnerable. For both represent nothing but the chemical subject; for Ceres was Triptolemus' nurse, who nursed him with her milk in the day-time and hardened him in the fire by night. When he grew exceedingly well on this, and his father Eleusius perceived it, Ceres killed Eleusius. After that Ceres put Triptolemus on a cart drawn by serpents and sent him through the air to all regions of the world to teach men agriculture. Now this Triptolemus is the Philosophical Tincture, which was hardened by the fire in the same way, and was guided by snakes, that is to say, by Mercury; and he teaches man in what way they should scatter their seed into their soil.

These same things are ascribed to Osiris, who also went through the world and to Dionysus, who taught man how to grow wine, on his journey through the world. These three, however, Triptolemus, Osiris (embl. XLIV) and Dionysus have one and the same meaning. The same holds good for Achilles, who was sent to the Trojan war as the strongest man. His father was Peleus, that is the earth, or the mountain Peleus; his mother was Thetis, a seagoddess or a goddess of the waters. Of them, Achilles was born. At the wedding of his parents Eris' golden apple of discord was thrown, which was the first cause of the Troian war, and because Achilles was the son of that marriage, he became the executor of that war. Achilles was hardened in the fire by his mother in the same way as Triptolemus

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<sup>1</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 63.

<sup>2</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 59.

<sup>3</sup> Arnoldus de Villanova, *Rosarium*, in: *Art. Aurif.*, II, 456.

by Ceres. About this I have said more in the sixth book about the hieroglyphs.<sup>4</sup>

So fire is the food for the Stone and not in the sense of extension in length, width and depth, but in the sense of increase of strength, ripening and colour. After that, all things follow of their own accord. For when its part are collected from various places, and are purified and united, the Stone has everything in it that it needs. Therefore it is written in the *Rosarium*: "This stinking water contains everything it needs" (the "aqua foetida" of embl. XXXVII). Let nothing strange be added to it from the beginning, unless it belongs to it. Further let nothing be separated from it, except if it does not belong to it. Let the beginner, however, be warned that he should well understand the two dragons which draw the cart. They are volatile and winged and if you want to know where to find them, well you will find them in the dung. For they are dung and take their origin from dung, and they are the vessel of which Mary says that it has nothing to do with necromancy, but with the way in which you treat your fire, for without that you will score no success.

Herewith I have revealed you the truth, which I have drawn from old writings in the course of many years with utmost exertion.

#### SOURCE OF THE MOTTO

based on: *Turba Philosophorum*, in: *Art. Aurif.*, I, 63: "Emiganus dixit: Legendi sunt libri Philosophorum: non frustra enim dixerunt, inspicite lactantem puerum, et non impediatis eum, in eo manet arcanum, ex quo bona operantur Sapientes: de quo etiam dixerunt, Comburite æs, comburite argentum vivum, et comburite aurum. Hoc si tenebrosius dictum est, dicam clarius: comburere, comburere, comburere, non est nisi unum, scil. dealbare, et rubeum facere, est vivificare".

"Emiganus said: The books of the philosophers should be read, for it is not without reason that they have said, look at the milk-drinking child, and do not hinder it, in it is the secret from which the Wise operate good things; about this they also said, burn the ore, burn the mercury and burn the gold. If this is said rather unclearly, may I put it more clearly, burning, burning, burning, is

<sup>4</sup> This is M. Maier's *Arcana Arcanissima* etc., without year or date, probably London 1614.

only one thing, namely making white and red, that is to vivify".

Arn. de Villanova, *Rosarium*, in: *Art. Aurif.*, II, 456:

"Oportet tamen ipsam Medicinam diutius assari super ignem, et nutriri puer in uberibus".

"The Medicine itself ought to be stewed above the fire for quite a long time until dry, and ought to be fed like a child at the breast".

#### COMMENTARY

Maier has taken the nursing of the Stone from the *Turba*. He pictured the nurse of the Stone in embl. II as mother Earth, basing that emblem on the *Tabula Smaragdina*. The meaning of both emblems runs parallel.

Ceres is the goddess of agriculture and the process in agriculture is analogous to the alchemical process, as is clear from embl. VI with the motto: "Sow your gold in the white foliated earth". In the discourse of embl. VI Maier says: "Chemia est omnino parallela agriculturæ . . . . sub allegoria absolutissima", and then continues: "Therefore man in Antiquity created Ceres and Triptolemus, Osiris, Dionysus, the golden gods, connecting them with chemistry, but representing it as if those gods taught agriculture and vineculture to mortals. All these things were wrongly connected with the farmer's work by the ignorant. For these things are the most secret mysteries of Nature, which remain hidden for the common man under the allegorical veil of agriculture; but these secrets are explained by the Wise". From this it appears that, in Maier's opinion, the secrets of alchemy were the same as those of the classical and Egyptian cults. Moreover, in the discourse (xxxv, Maier refers to the sixth book of the hieroglyphs, that is to say to his own *Arcana Arcanissima*, in which he explains the resemblances in a more detailed way.

In *Symbola Aureae Mensae*, Maier also says that the Egyptian and Greek mysteries are essentially identical, and only differ in name.<sup>5</sup> From this it follows that embl. xxxv is connected with embl. xli and xliv; further with the emblems II and VI already mentioned.

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<sup>5</sup> M. Maier, *Symbola Aureae Mensae*, p. 100, quotes Diodorus Siculus (lib. II, chapter 6): ". . . . Osiridis sane ceremonias et Dionysii easdem esse, similesque esse Isidis et Cererisque, nominibus tantum differre".

*EMBLEM XXXVI*

(fig. 36)

## MOTTO

The Stone has been thrown onto the earth and lifted onto the mountains,

It lives in the air and feeds in the rivers, that is, Mercury.

## EPIGRAM

It is said that the Stone is refuse of little value,  
And lies accidentally on the roads, so that rich and poor have it  
ready to hand.

Others allege that it is to be found on the tops of the mountains,  
through the heights of the air,

But others in their turn think that it feeds in the rivers.

This is all true, in its own meaning,

But I advise you to look for such great gifts in mountainous places.

## SUMMARY OF THE DISCOURSE

Nearly everyone who has heard about the Philosophers' Stone asks where it can be found. The Philosophers answer this in two ways. Firstly they say that Adam took the Philosophers' Stone with him, when he left Paradise, and that it is now in you, in me and in everybody, and that a tramp took it with him from far regions. Secondly the Philosophers answer that it is to be found in the earth, in the mountains, in the air and in the river. Now, which way is to be followed in searching it? In my opinion both ways; and each way in its own manner.

It is said: "The Stone is thrown onto the earth", which means that the element earth appears first in a black body. After that it is said that it is found on the roads and on the dunghill, because it is dirty and is despised and trampled upon. In connection with this Rosarius says: "If I should call the Stone by its name, the ignorant would not be able to believe that it is the one". And Morienus answers a question of Calidus, as to whether there was much of it to be found: "The Stone is with the rich and the poor, with the liberal and the avaricious, with those who are going and with those who are standing still. For its thrown on the roads and

trampled upon on the dung-hill and many have dug already into the dirt to dig it up, but they were disappointed in their expectations".<sup>1</sup> And Mundus in the *Turba* says: "If merchants knew the Stone, they would not sell it for such a low price".<sup>2</sup> And Arnoldus says: "One can obtain the Stone in abundance, for nothing, wherever one wants, and without needing to ask anybody for it". All this is the truth, for whosoever would refuse water and earth to anybody if it were asked of him?

When, however, the Cimbri asked for these gifts of earth and water from the Romans and did not obtain them, they invaded Italy and murdered thousands of Romans and their consuls, as history tells us. For earth is ambivalent; earth is like a mother, the most precious of all things, but at the same time earth is, as the last substance of dissolution, also the most worthless thing existing. For what is of less value than mud or excrements, which are nothing but a mixture of earth and water; and what is more common than a lump of earth? Nevertheless Eurypylus, a son of Neptune, gave just this as a present to the heroic Argonauts, and they accepted it gratefully; and out of that earth mixed with water Medea made her prophecies. Earth should be dissolved in water, otherwise neither the one nor the other is of any value.

Now in this way the Philosophers' Stone is thrown onto earth, where it does not remain, however, for it ascends to the mountains, such as the Mons Athos, the Vesuvius and the Etna and similar mountains, which spit fire and are to be found in several places of the world. For in these mountains glows an eternal fire which sublimates the Stone and brings it to its highest dignity. Just as it grows in the mountains in the rough form of Mercury and Sulphur, in the same way it is on the tops of the mountains that it ripens and becomes perfect, on the same tops of the mountains where also the grass grows which tempers the fire by means of properties opposed to the fire, namely moistness and coldness. From the mountains the Stone passes into the air, where it finds its domicile. The air is its home and it is surrounded by it, because it is nothing else but that which is carried in the belly of the wind (phrase from the *Tabula Smaragdina* and motto of embl. I at the same time), born in

<sup>1</sup> Morienus Romanus, *De Transmutatione Metallorum*, in: *Art. Aurif.*, II, 38.

<sup>2</sup> *Turba Philosophorum*, in: *Art. Aurif.*, I, 95.

the air, which has been discussed already (embl. xxxiv). Finally Mercury feeds in the rivers, that is in the water and the *Rosarium* says that the matter of the Philosophers' Stone is water. Mercury is called threefold, that is watery, heavenly and earthly, for it is in the water, in the earth and in the air.

According to tradition, it is educated by the thievish Vulcan, and on account of this it is also accustomed to fire (embl. xxxv), for fire is volatile (thievish like Vulcan) and absorbs that with which it is united. Mercury gave the Egyptians their laws and their knowledge, and he gave religion to the Theban priests and at the same time to a large part of the world, for the knowledge about state and religion which the Egyptians drew from their chemical knowledge, passed to the Greeks and from the Greeks to the Romans and from there it spread to the other peoples. Mercury killed Argus with a boulder or with a stone and changed Battus into a rock.

What more should be added to this? For all the books of the Chemists deal with Mercury again and again and confirm his power and importance decisively with the following words: "That which the Wise look for is Mercury". So Mercury should be looked for until at last it is found, either in the air or in the fire or in the earth or in the water; for he wanders sometimes here and sometimes there, and is in the service of the chemical gods and executes their orders and some say that he has a daughter with the nature of an Angel.

#### SOURCE OF THE MOTTO

*Rosinus ad Saratantam Episcopum*, in: *Art. Aurif.*, I, 332: "Item hic lapis non lapis, proiectus est in res, et in montibus exaltatus est, et in aere habitat, et in flumine pascitur argentum vivum quem vocant multis nominibus, et in cacumine montium quiescit".

"In the same way this stone, which is not a stone, is thrown into the things and exalted in the mountains, and it lives in the air, and feeds in the river, the mercury, which has many names, and it rests on the top of the mountains".

Morienus, *De Transmutatione Metallorum*, in: *Art. Aurif.*, II, 38: source of the epigram: The stone is found "ad divitem scilicet et

pauperem, et ad largum et ad avarum, euntem quoque et sedentem. Nam hoc in viis projicitur, et in sterquiliniis suis calcatur, et multam in sterquiliniis foderunt, ut hoc ab eis extraherent, et in hoc decepti sunt”.

“With the rich and the poor, with the generous and the avaricious with the man who is going and the man who is sitting. For it is thrown onto the roads and trampled down on the dung-hill and many have already dug into the dung-hill in order to get it out, but their hopes were disappointed”.

### COMMENTARY

Embl. xxxvi represents the alchemical process in its circular course through the elements. The value of the elements is ambivalent; in the initial stage of the origin of the Stone the latter is found on the dung-hill, that is to say in the most humble shape in which earth and water manifest themselves. However, Terra Mater, with its mixture of earth and water, is at the same time the resuscitating mother and nurse, who feeds the Stone in a further stage of development (embl. ii and xxxv). The Stone is lifted onto the tops of the mountains, it rises from the matter. It lives in the air and feeds in the rivers, or, as it is represented in embl. xxxiv, he is born in the air and having become red he strides over the waters. The end of the transmutation process of the elements results in the indestructible connection of the four elements, the Lapis Philosophorum.

On the other hand Maier remarks in the discourse that Adam had taken the Stone with him from Paradise, and that it is now present in everyone. In this sense, the Stone is the little divine spark which Adam carried with him. Adam ate of the fruits of the Tree of Knowledge; as a consequence of this he is driven out of Paradise; his soul becomes black and enters the first stage of the alchemical process, namely the putrefactio. The divine spark in him finally carries him back to the great light, his soul having gone through many stages of development. In the picture of embl. xxxvi, the Stones have the shape of a rectangle or a cube and represent the formed soul, in contrast with the unformed Stone of embl. xii, in which the unformed Saturnalian stage of the Stone or soul finds its expression (mentioned before in embl. xxxiv, commentary).

The Stone as angular stone or corner-stone leads the thoughts towards the parallel between the Lapis Philosophorum and Christ, who is called the corner-stone thrown away by the builders. On account of this, embl. xxxvi also becomes applicable to Christ, as the Philosophers' Stone. He also descended down to earth and is despised, and likewise ascended to the mountains. This association is supported by *Gloria Mundi*.<sup>3</sup> Just as Maier in the discourse, the author of *Gloria Mundi* explains that the Stone is in the possession of the rich and the poor, and he stresses the discrepancy between the real value of the Stone and the lack of appreciation of it:

"It is excluded and rejected by everybody; it is the stone that was rejected by Solomon's builders. But however deep it may be despised and deemed to be worthless and be turned down by the Israelite nation, it is nevertheless good, if it is formed; so good even, that it surpasses the whole world in value. For it is the cornerstone, equal to Christ—with the exception of the very exalted divinity, which is equalled by nothing—in nature and kind, just as in humanity and disposition. And Christ, who, in the same way, was deemed in this world to be worthless and rejected and was despised by the Israelite nation, was, on the other hand, so good that neither heaven nor earth could measure themselves against him. In the same manner he has been compared with out stone and with the natural things in this world: for the Source in which our stone is found, is called the source of nature".<sup>4</sup>

### EMBLEM XXXVII

(fig. 37)

#### MOTTO

Three things are sufficient for mastership; White smoke, that is,

<sup>3</sup> *Gloria Mundi*, in: *Musaeum Hermeticum*, 203-304.

<sup>4</sup> *Gloria Mundi*, in: *Mus. Herm.* 222: "...ab omnibus excluditur, et rejicitur, lapis est, quem Salomonis architecti rejecerunt. Et quam abjecte spretus, naucique aestumatus et a populo Israelitico rejectus fuit, nihilominus tamen, si elaboretur, bonus est, adeo ut totius mundi pretium superet: Vero namque lapidi angulari Christo, in natura et specie (nobilissima divinitate, cui nulla res æqualis est, excepta) similis est, juxta humanitatem et naturam. Et quemadmodum Christus pro vilissimo abjectissimoque, hocce in mundo a populo Israelitico fuit habitus rejectusve, nihilominus tamen tam erat bonus, quod illius pretium cælum et terra persolvere non posset. Simili modo cum lapide nostro, et cum rebus, hoc in modo, naturalibus, comparatum est: Fons enim quo in lapis noster reperitur, fons naturæ appellatur".



water, the green Lion, that is, the ore of Hermes, and stinking water.

### EPIGRAM

Three things form the foundation of the mastership;  
Stinking water, snow-white vapour, and a Lion with a green fur;  
Like a mother, the water produces the other elements  
And for the wise it is the last and the first factor in the making of  
the stone.

But the ore of Hermes is the green Lion,  
And the stone, known from the chapters of the books, is white  
smoke and water.

### SUMMARY OF THE DISCOURSE

For building a house one needs three things: the foundation, the walls and the roof. Likewise, three things, which are mentioned here by their own names, are indispensable in the Philosophers' work. In his chapter 20,<sup>1</sup> the author of the *Aurora Consurgens* speaks about the separation of the elements as follows: "The earth stays behind in the same place, so that the other elements can take root in it. If there were no earth, the elements would miss the foundation on which the New Treasure-House<sup>2</sup> ought to be built". This foundation is called the stinking water, and that is the mother of all elements, as Rosarius expresses it: "From which and by which and with which the Philosophers prepare it, namely the Elixir, at the beginning and the end".<sup>3</sup> The water is called the stinking water, because it has the smell of sulphur and the grave; it is the water that Pegasus made rise from the Parnassus with his hoof<sup>4</sup> and at the same time it is the water that the mountain Nonacris in Arcadia made flow downwards, shooting it out of chasms, and it can only be kept in a horse-hoof on account of its immense force. This water is the Dragon's

<sup>1</sup> *Aurora Consurgens*, in: *Art. Aurif.*, I, 251-252.

<sup>2</sup> The New Treasure House refers to the building of the New Temple of Solomon.

<sup>3</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 249.

<sup>4</sup> Also in the discourse of embl. xxxviii Maier analogizes the aqua mercurialis to the water of the source Hippocrene, which is dedicated to the Muses and which rises on the Parnassus from the hoof of the winged horse Pegasus. In embl. xxvii Maier also speaks of ascending the Parnassus.

water, as it is called by Rosarius, and it should be driven into the helmet without any addition, where the strongest smell arises.<sup>5</sup>

On account of these words some laboratory workers have worked with human and animal excrements when distilling, and in doing so, they smelled a very strong, nauseating odour, it is true, but they only found excrements among the excrements. So do not think by any means that the Philosophers are dung-beetles, who work with excrements, but know that the stench of which they speak—if it is present at all—soon changes into a delicious odour, as Lullius testifies in his book about the Quinta Essentia. He ascribed such a delicious smell to this, that the birds in the high air were lured to it and stood still in their flight. Lullius however, put his Quinta Essentia in the dung, and by just this very moderate warmth of the dung, that delicious smell arose. Some people have experimented with the spirit of wine, but they did so in vain and therefore they rejected Lullius' words; but these people themselves are foolish, for they have never tasted the wine of Lullius. And the golden poet appears to have understood him better, for in his first book of *Chrysopoeia*,<sup>6</sup> he writes: "But he does not mean what he seems to mean at the first sight, and accordingly he did not mix trickling wine".

After the stinking water comes the Green Lion,<sup>7</sup> about which Rosarius<sup>8</sup> writes: "You have asked about the green colour, thinking that the ore has the body of a leper (embl. XIII), on account of that green colour. But I tell you that this is exactly the sign of the perfection of the ore. For that green colour is quickly changed into our true gold by our mastership; this we know from experience. You will not be able to make the Stone at all without the green, liquid Duenech, who is born in our mineral. O blessed green colour, which produces all other things. Know also that no plant nor fruit appears without green colour, and may you also know that the Philosophers' process of production is green, and that on account of this the Phi-

<sup>5</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 239.

<sup>6</sup> The golden poet is Augurellus (Johannes Aurelius), author of *Chrysopoeia etc.*, see bibl.; the quotation is from his book I, in: *Theatr. Chem.*, III, 212.

<sup>7</sup> The Green Lion is the green vitriol, which has a strongly caustic, dissolving effect; embl. xxviii speaks of the green lion in the allegorical form of king Duenech.

<sup>8</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 236.

losophers speak of a germ". Rosarius says: "This is the gold ore of the Philosophers, and it is the Stone known from our writings as vapour, smoke, water, saliva of the Moon, which is mixed with the light of the Sun. This Green Lion fights the Dragon, but is conquered and devoured by the Dragon". Sweetness comes out of the mouth of the destroyed Lion, just as from the mouth of the lion which was killed by Simson.<sup>9</sup> The conqueror, the Dragon, feeds itself so abundantly on lion's meat that it dies. And from the dead Dragon—as lion's fat has a curative effect on daily fever, and further rouses friendship in kings and peoples, who are rubbed with it—an excellent medicine may be prepared, which is very useful for several afflictions.

As the third pillar in the Philosophical Work follows the white smoke, which becomes water in a condensed condition and surpasses the common water in its capacity for washing, dissolving and wiping out stains, with a much stronger action than water and soap. This is the fire against Nature; aim at finding it, because it opposes Nature, that is to say, because it decomposes and destroys everything that is composed by Nature with careful exactness. This is a fire which does not consist of the spirit of wine, or of fire lighted with oil, but it consists of an incombustible matter, which has the same staying-power and sun-heat as fire. It is fire without light, but with a higher burning power, and you have to find it in the darkness, for it has no light and for that reason it is extremely difficult to find. It should be applied in the Work, however, in the manner required, about which we have already written sufficient in other places.

#### SOURCE OF THE MOTTO

*Morienus, De Transmutatione Metallorum*, in: *Art. Aurif.*, II, 55: "Ecce iam nomina specierum tibi exprimo quarum tamen tres ad totum magisterium tibi sufficient: id est fumus albus, et leo viridis et aqua foetida".

"Behold! I am already telling you the names of the kinds, three of which may be enough for you for the whole master-

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<sup>9</sup> analogous to the lion of Simson, who was a prefiguration of Christ; just as the honey from the lion's mouth, was the salvation from Christ's death on the cross. (*Jud.*, XIV, 5 sq.).

piece; they are white smoke, the green lion and stinking water”.

### COMMENTARY

As is clear from the notes accompanying the discourse, the text of Morienus which served as an example for the motto, has intrigued the alchemists; the difficulty in interpreting it, was to get to know what matters should be used for that purpose. As we see from paragraph 2 of the discourse, the most divergent matters have been used on account of Morienus' words.

One item of this pronouncement is clear; the stinking water represents the initial stage of the process, the green Lion the middle stage and the white smoke the final result. Maier associates himself closest to the commentary on Morienus' words of the *Consilium Conjugii, seu de Massa Solis et Lunae*, which says: “. . . . which three kinds are sufficient for the whole masterpiece notably the white smoke, that is the quintessentia, that is the heavenly water; and the green lion, that is the ore of Hermes; and the stinking water, that is the mother of all things, from which and by which and with which they prepare it (the Stone) in the beginning and at the end”.<sup>10</sup>

The aqua foetida is the eternal water of the Philosophers, which comes into existence after the putrefactio and after the separation of the elements,<sup>11</sup> according to Maier's remark in the discours of embl. xxv (paragraph 2).

The water in alchemy is the stinking water of the beginning as well as the life-giving water of the end of the process.

### EMBLEM XXXVIII

(fig. 38)

### MOTTO

Like the Hermaphrodite, the Rebis is born out of two mountains, of Mercury and Venus.

<sup>10</sup> *Consilium Conjugii etc.*, in: *Theatr. Chem.*, V, 435: “. . . . quod tres species ad totum magisterium sufficiunt, scilicet, fumus albus, id est, vis quinta, id est, aqua coelestis; et leo viridis, id est, æs Hermetis; et aqua foetida, quæ est mater omnium, ex qua et per quam, et cum qua præparant ipsum in principio et in fine.”

<sup>11</sup> on account of: *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 258.

## EPIGRAM

In Antiquity they called a twofold being Rebis,  
 Because it is man and woman in one body, the Hermaphrodite.  
 For it is said that the Hermaphrodite is born on two mountains,  
 To whom the all-feeding Venus gave birth for Hermes.  
 Do not despise the bisexual being,  
 For man as well as woman, who together are one and the same,  
 will give birth to the King for you.

## SUMMARY OF THE DISCOURSE

When Socrates was asked whether he was a citizen of the town or of the world, he answered, that though he was born in Athens as far as his body was concerned, he wandered all over the world with his spirit, and that that was, as it were, his native country, as a wise man considers that place to be his native country, where he feels well. In the same way, when asked where their Hermaphrodite comes from, the Philosophers would answer that he was from the earth and can be found in all corners of the earth, where there are elements, for he is the Son of the Philosophers and has the same native country as they have.

As nobody is born twice or more often, nor can be born in more than one place at the same time—just as Socrates admits to be an Athenian—in the same way the Hermaphrodite is considered to be the inhabitant of two mountains, namely the mountains of Mercury and Venus, from where he also takes his name, Hermaphrodite, after his parents (Hermes and Aphrodite). His gods of the hearth are mountain dwellers and his native country is in a high place; in order to accomplish great things a noble and spacious native country is of high importance, because there the citizens and not the foreigners are preferably summoned to the high posts, so that they do not sink into obscurity, as is the case when the native country is humble, but, on the contrary, something of the lustre of that country reflects on them. But it is of still greater importance when somebody rises by his own efforts, even if he comes from a humble place, and something of his own lustre reflects on his native country.

The latter is the case with the mountains from which the Hermaphrodite originates; these mountains were unknown, but became

known all over the world through the fame of the Hermaphrodite. For who does not know the Rebis? even if he is little at home in the Philosophical books? Who does not notice the Androgynus, twoheaded, who is man and woman at the same time? He is known as far as India and his fame is greater than that of Alexander the Great. A great deal of people set out to see and to speak to a man who has become known by his exploits or his knowledge, but a great deal more people would travel to the said mountains of the Rebis, if they only knew where they should go to.

With how much care and study did not Morienus find the Alexandrian Adferus, as he himself tells us in his book.<sup>1</sup> Morienus has to be considered all the more blessed by God, because he came to know the birth-place of the Rebis from the mouth of living masters instead of from the books. But those who look for the native country of the Rebis under the guidance of their mind and at the indication of the books, need at least as much diligence and perseverance, for sometimes there is something clear in the books, but, in general, they are surrounded by such great obscurity that nothing can be discerned beside that obscurity. So set to work carefully, that you may not use as a poison what is prepared as a medicine.

The Philosophers' books may be considered as an immense ocean and if experienced seamen get off their course there, they may be able to define the degree of latitude with their astronomical instruments, with the compass, indicating the direction of the north pole; but they cannot define the degree of longitude, or the number of degrees they are away from the first meridian which is nearest to the Islands of Happiness and therefore they are not sure of their position between East and West. What should they do in such a case? The same as expert sailors would do in such a case, namely to combine experience and reason and to try to define the course by means of distinctive marks in the shape of promontories, islands and such things, in order, in this way, to guard against being smashed on the cliffs. But when one is shipwrecked in the Philosophical Work, the danger is smaller than in a common shipwreck; and if all goes well the advantage is bigger, for at sea one may lose one's goods and life within an hour.

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<sup>1</sup> Morienus, *De Transmutatione Metallorum*, in; *Art. Aurif.*, II, 7-8.

The mountain of the Philosophical Mercury, however, is not the Nonacris, or the Atlas Mountain, but the two-topped Parnassus, on the one top of which Hermes stays, and on the other top Venus. Here are also Apollo and the Muses to be found and the Source Hippocrene, sprung from the hoof of the winged horse Pegasus is surrounded there with ever-green laurel. The mountain is one in name, but two in being, just as the Hermaphrodite, who has one body and two sexes. But who amongst thousands has enough endurance to reach the top of that mountain? And who, in doing so, does not get entangled in roots, in consequence of which he is tripped up? How very few do reach the navel and the centre of the mountain.

For a difficult climb awaits him who tries  
to reach the steep heights.

The great strain destroys him,  
Sleeplessly he tires himself out in the night  
near the olive-tree

He deplores now what he had first praised in himself,  
He who desires to crown himself with the honour of the eternal  
laurel-wreath.

Therefore it is no wonder that only one in thousands completes these labours of Hercules to set foot on top of the mountain and to be crowned with the laurel-wreath of immortality, in consequence of which those who devote themselves to virtue and literature may enjoy the goods of the spirit.

#### SOURCE OF THE MOTTO

*Rosinus ad Saratantam*, in: *Art. Aurif.*, I, 333:

"Sume ergo ex lapide ubique reperto, qui vocatur Rebis, et nascitur in duobus montibus..."

"So take from the Stone, wherever it may be found, him who is called Rebis and is born in two mountains..."

*o.c.*, 335 (printer's error 337):

"Nascitur in duobus montibus, id est ex Venere et Mercurio per assiduitatem decoctionis naturæ..."

"He is born in two mountains, that is, from Venus (copper) and Mercury (mercury) by nature's assiduous process of boiling down..."

Arn. of Villanova, *Speculum Alchymiae*, in: *Theatr. Chem.*, IV, 517: "Tu quæris, in quo loco inveniri possit: et libenter dicam. In duobus montibus invenitur: et si perfectissime invenire desideras, ascende in montem alteriorem hujus mundi: quia ibi lapis noster absconditur: et scias, quod in alio loco non invenitur".

"You ask in what place he (the Stone) may be found: I shall tell you with pleasure. He is found in two mountains and if you desire to find him in a most perfect state, ascend the mountain which is higher than this world: because there our stone is hidden: and know that he is not found in any other place".

#### COMMENTARY

The two mountains from which the Hermaphrodite is born allude to the Mercury-Sulphur theory. In connection herewith, there exists a resemblance between embl. xxxviii and an emblem from the *Symbola Aureae Mensae* (fig. 66), which has already been discussed with embl. xv (2nd half of the commentary).

Also embl. xxxiii and the commentary on embl. xxxiii are closely connected with embl. xxxviii.

In the discourse of embl. xxxviii the mountains of Mercury and Venus are put on a level with the two-topped Parnassus. Maier sketches the difficulties one encounters when trying to reach the top of it. In respect of this part of the discourse, I also refer to embl. xxvii, and to embl. xxvi in connection with embl. xxvii, for the meaning of this emblem.

#### EMBLEM XXXIX

(fig. 39)

#### MOTTO

Oedipus, having conquered the Sphinx and having killed his father Laius, married his mother.

#### EPIGRAM

By his art, Oedipus made the Sphinx kill herself,  
The Sphinx, who was terrifying for the Thebans by enigmatic language;

It was asked: who has twice two feet in the morning,  
In the middle of the day two, and when evening comes three.



After that the conqueror killed his father Laius, who was not willing  
to give way,  
And married the woman who was his mother.

#### SUMMARY OF THE DISCOURSE

Bacasser,<sup>1</sup> a Philosopher of the *Turba*, says that what you look for is of no small value. For it is the greatest treasure and the most excellent work of God. And, investigators, know that the truth is only found by trial and error, and that there is nothing that wounds the heart more than erring in this art. For if somebody thinks he has completed it and has purified it he will stand there with his hands empty. By their representation of the Sphinx the people of Antiquity meant the obscurity of their art. Therefore the priests of the Isis cult, which was held in the honour of Osiris, had shorn heads and wore white garments, covering them entirely so that they remained unrecognizable for the common public; on the high altar a statue of taciturnity, called Sigalion, was erected and the priests who stood near it, had to worship the statue, keeping their eyes on it. In the corners of the altar stood the statue of the Sphinx, which represented the secret knowledge of the sacred affairs, as Boissard<sup>2</sup> shows, basing his views on old writings.

For the Thebans the Sphinx is a very obscure kind of monster, which set them riddles; not only, however, for the Thebans but also for the Egyptians before them and to all other peoples after them who aim at art, for the Sphinx guards the Philosophical books with her riddles as if they were the gates of Thebes. If somebody were to take no notice of the monster, nothing evil happens to him, but if somebody has the audacity of trying to solve the riddle of the Sphinx, it is his ruin if he does not succeed, that is to say he loses his possessions and is in grief, because he has failed in this Work.

He who takes all these things literally is a fool, and he who connects them with history is a fool, too. There is a story that wild monsters, called sphinxes, lived in Africa, but that is another question, although the fictive origin and denomination of the sphinx originate from there. The Philosophical Sphinx, however, had a

<sup>1</sup> Bacasser, *Turba Philosophorum*, in: *Art. Aurif.*, I, 37.

<sup>2</sup> J. J. Boissard, 1528-1602, wrote a.o. *Theatrum Vitae Humanae* 1595 and *Habitus Variarum Gentium*, 1581.

human voice and spoke in Greek and made use of fabulous animals and riddles, under which obstruse notions and doctrines lay hidden. These are the Philosophical doctrines which are passed over by the common man, but which he who is conversant with the Philosophical books, can easily understand. For where one thing is said, something else is meant, and that identity of name is in itself already confusing; the philosophers, however, are not only permitted to use this method, but are even required to do so.

After the Thebans had been vexed for a long time by the riddles of the Sphinx, Oedipus finally solved them. Oedipus was the son of the king of the Thebans, and when he was born, an oracle predicted to his father that he would once be killed by his son, after which the king ordered the child to be killed; Oedipus was hanged by his feet from a tree, but set free and brought up by a farmer. He had swollen feet all his life, but he had an extremely sharp intellect and solved the riddle of the Sphinx. Although the Sphinx had many riddles, the following was put to Oedipus: What has four feet in the morning, two in the afternoon and three in the evening? Oedipus' answer is not known, but others who think that the riddle refers to the three styles of man's life, are wrong.

The true meaning is that first, one should consider the square or the four elements, and that from there one should advance to the hemisphere, which has two lines, the straight and the curved one, representing Luna, who is made white, and that after that one should pass to the triangle, which consists of body, soul and spirit, or Sol, Luna and Mercury. Referring to this Rhazes says in his *Epistola*: "The Stone is a Triangle in its essence, and a square in its properties". Also emblem XXI refers to this.

Oedipus is known by the murder of his father and the marriage with his mother. These are two extremely depraved vices, but Oedipus nevertheless became king. He killed his father, because he was not willing to give way to him, and after that he married Laius' wife, his own mother. The story is not supposed to be historically true, nor as an example worth being imitated, but is advanced by the Philosophers exclusively to reveal the secrets of their Philosophical theory in an allegorical way. For here patricide occurs as well as incest. The meaning is that the first, active principle, or the father, is killed by its effect, or the son; after that the effect

mixes with its cause, till they become a unity, or: the son marries the mother. So he gets hold of his paternal realm by means of arms, by marriage and by title of succession, so according to a triple title.

Oedipus has swollen feet, on account of which he cannot run, but he can only move like a bear or like a slow toad; behind this is hidden a great secret (of embl. v). On account of this slowness he reduces other things to a solid condition and is not volatile to fire.

That is why the Philosophers need these despicable means.

### SOURCE OF THE MOTTO

An alchemical source for the words of the motto has not been found.

### COMMENTARY

In the story of Oedipus Maier symbolizes the whole alchemical process from the materia prima til the completion by the uniting of the opposites. This process contains the same secrets as the Osiris-Isis mysteries, as is clear from the first paragraph of the discourse.

The riddle propounded by the Sphinx refers to the Stone as a square, as hemisphere and as a triangle, as Maier elucidates in the 5th paragraph of the discourse, in which he also refers to emblem XXI. So the meaning of emblem XXI with the motto: "Make a circle out of a man and a woman, out of this a square, out of this a triangle, make a circle and you will have the Philosophers' Stone", also throws light on the meaning of emblem XXXIX.

In the picture of embl. xxxix the history of Oedipus is represented in a circular composition, beginning in the middle of the background with the picture of the Sphinx. The story moves anti-clockwise, as follows: left in the centre, the meeting of Oedipus and the Sphinx; in the foreground man as a creeping child, as an adult standing upright and as an old man leaning on a stick; to the right in the centre, the scene of the patricide and in the background opposite the Sphinx the meeting between mother and son. The alchemical meaning of the Oedipus story is also to be read from the sequence of the pictures.

The circular form of the composition agrees with the circular form of the alchemical process, a theme which occurs repeatedly, for example the emblems XIV, with the motto: "This is the dragon,

which devours its own tail" and xvii, with the motto: "A fourfold fire-ball controls this work". Beginning and end touch each other, that is to say, opposite the Sphinx, the starting-point, the *materia prima*, is the meeting of mother and son, the end, the union of the opposites. The meeting of Oedipus and the Sphinx represents the confrontation of the active principle in the amorphous *materia prima*, which is differentiated in the four elements, pictured by the child moving on all fours, which carries the square of the four elements on its forehead. The man with the sign of the hemisphere on his forehead and standing on two feet is, as is clear from the discourse, the Moon after becoming white. The old man leaning on a stick with the triangle on his forehead is the symbol of mind, soul and body. The murder of Laius by Oedipus represents the consequence destroying its cause (just as in embl. xii Saturn is succeeded by his son Jupiter, who, as Maier informs us in the discourse of embl. xxii, unmans Saturn). After that the son becomes equal to his father as a working principle and takes his place as a husband, that is to say Oedipus, the son, marries his mother. In this last motif two alchemical thoughts have been handled, namely that "the like rejoices its like", that is the *relationship* of mother and son, and that the opposites are combined into a Unity, that is the *marriage* between mother and son.

### EMBLEM XL

(fig. 40)

#### MOTTO

Make one water out of two waters, and it will be the water of holiness.

#### EPIGRAM

There are two sources, spouting a clear, strong stream,  
 One of them, the source of the Small Boy, has hot water;  
 The other, which has cold water, is called the Virgin's Source,  
 Unite the one with the other, that the two waters may be one:  
 This stream will possess the forces of each of them, mixed together,  
 Just as the source of Jupiter Hammon is hot and cold at the same  
 time.

## SUMMARY OF THE DISCOURSE

What the various authors have written about many, large wonder sources, would hardly fit into even a very large book. But especially the two Philosophical waters are revered by this name, because they surpass all other sources in properties and force. Thus, e.g., the water of the rivers Sybaris and Axius, which flow through Macedonia, and of the Melas in Boeotia, blacken the cattle, if it drinks their water. The Sinuessan waters in Campania drive fertility away from both sexes and the river Aphrodisius makes women sterile. The source Cabura in Mesopotamia has deliciously smelling water and the river Anigros in the Peloponnesus has stinking water. The source of Jupiter Hammon is cold during the day and hot in the night and tepid in the morning and twilight. Let us, however, no longer linger on the other waters and sources, which, just as those mentioned, have opposing properties, for all are surpassed by the Philosophical waters.

Lullius speaks of them in his treatise of the *Quinta Essentia*, dist. 3, in discussing the preparation of the waxy, kneadable state of the Stone. He says that two items of consideration are necessary in art, namely, how to prepare two liquids whose actions are opposites, out of one nature and a single metal; the one should have a solidifying, coagulating and hardening power and the other a volatile, dissolving and softening power. From these two liquids one Stone results, which is firm and hard and has the power of coagulating what is not coagulated, of hardening what is soft and of dissolving what is hard. From this it appears what twofold liquids these are and why they should be made into one liquid: For the Stone is called water, because it can be poured, and, the other way round, the water is called the Stone, because it can be crushed.

These waters are supplied from several places, it is true, and sometimes over long distances, as can be seen from the Virgin's source in Rome and other sources, and after that they have to be mixed with each other by making them flow together, so that there arises one water out of two. For when the one water is cold and the other warm, these properties will temper each other when mixed. In this way also the medical waters and the hotwater sources arise, which are beneficial for all sorts of affections and which make man

healthy again. For Nature knows how to compose many waters, by the secret activity of its composition, with a grain of earth, in which all kinds of minerals salutary to various diseases are present, but when art is added to it as well, with its regulating action of separation and addition, the composition becomes still more effective. Although this composition seems to be artificial, it is nevertheless natural, because it is a composition which is one and simple, having become homogeneous from several factors, which cannot be brought about by art alone. Without the help of Nature art only causes chaos and not a real, natural unity.

In preparing the Theriac an artificial mixing of various simple elements takes place, which is brought about by crushing and fermentation, but nobody, unless he is very thoughtless, will call this a natural combination and still less a homogeneous Medicine. As regards the artificial combinations of matter, it has been established that the various ingredients do not penetrate each other completely, even if they cannot be separated any more by human interference. But in mixing the properties, one wonders whether the first properties of the simple ingredients for the Theriac pass into one *quinta essentia*, or whether, just as before, they keep their own character and essence, that is to say whether the process of mixing should be considered as adding something to the subject, like paint on a wall? And what more should be said about the change in the second, third and fourth properties? It is highly probable that all properties remain in the matter to which they belonged, and that they do not mix into a real, natural combination. In the other case, namely if the properties were to leave the substances in which they were, there would be four *quintæ essentiæ* in every artificial combination, going by the first, second, third and fourth properties, and they would occur without the substances and could be separated from each other; but this does not occur.

Hare's coagulant is made from very thin blood and, when coagulated, it can be dissolved again; thus also vinegar, lead and many other substances have effects opposite to each other, according to the purpose for which they are used, and that is the result of Nature composing substances in such a wonderful way. In the same way the Philosophical water has various, opposite powers, because Nature composes it from opposite ingredients, with the help of art,

into one indivisible substance, which is nothing else but the Quinta Essentia with regard to other matters mixed with it.

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 265 (The *Rosarium* quotes Senior):

"Ex duabus aquis unam facite Aquam. Si verbum meum intellexistis, omne regimen sub pedibus vestris erit. Rosarius: Oportet te duas aquas habere, una est alba, altera vero rubea. Senior: Haec aqua est in qua congregatae sunt potentiae albedinis et rubedinis".

"Make one water out of two waters. If you have understood my short indication, the whole course of action will be under your feet. Rosarius says: You should have two waters, the one white, the other red. Senior says: This is the water in which the powers of whiteness and redness are united".

#### COMMENTARY

The two waters or the contrasts should be united. In the picture of the emblem people are drinking from the water of the sources, just as the Jews drank from the water Moses struck from the rocks, which was the prefiguration of the salutary water of baptism. The alchemical sources become one source. This one source is the Mercury source. The Mercury source is analogous to the Source of Life, to Christ.

The affinity between Christ as Source of Life and the alchemical Mercury source is expressed in the picture of the "Brun des Lebens" in Stephan Michelspacher's *Cabala Spiegel der Kunst und Natur*, Augsburg 1616 (*fig. 79*). The last one of the four pictures there depicts the completion of the alchemical process and bears the heading: "Endt. Multiplication". The representation is divided into three scenes: below the earth, five planet figures are standing, Mercury, Venus, Mars, Jupiter and Saturn, encircled by dark clouds, on a plateau lighted by some light coming from above, from the Source of Life. On the earth the Mercury source, or the Source of Life is standing in a garden, surrounded by a hedge of vine-tendrils (Christ is the true vine). The Source has four basins; Mercury is standing on the top; below them Saturn and Jupiter, below them

Mars and Venus. Christ is sitting in the lowest basin and fills the basin of the Source with the blood from the wound in his side, while Sol and Luna kneel beside the Source, adoring him (see embl. xxiv, note 4). Outside the hedge of vinetendrils, in the background, Christ is pictured, bearing the Cross. From here a stream is flowing to the Source, which empties itself into the basin of the Source via the wound in Christ's side. The scene of the Source, hedge and Christ bearing the Cross, is surrounded by a segment of a circle. Within this segment is the Microcosm. Outside it is God. From the divine light there runs a connecting-line to the world, to the Source and to Golgotha.

This picture represents the connection between the transmutation process of the metals and the transmutation process in the world by Christ; the water from the Mercury source is the same as the water from the wound in Christ's side. The aqua mercurialis is the Brun des Lebens and is the aqua sanctitatis of Maier's embl. xl.

### EMBLEM XLI

(fig. 41)

#### MOTTO

Adonis is killed by a boar, and Venus, rushing up to him, painted the roses red with her blood.

#### EPIGRAM

From her own father, Myrrha received the beautiful Adonis,  
 The favourite of Venus, whom a boar killed.  
 Venus rushed up, and, wounding her foot,  
 She herself coloured red with her blood the rose, which had been  
 white at first.  
 The Goddess weeps—the Syrians weep, and the whole world is  
 plunged into deep mourning—  
 And she put Adonis down under the tender lettuce.

#### SUMMARY OF THE DISCOURSE

I have already sufficiently discussed the allegory about Adonis, which is wrongly explained by some as coming from mythology, in which Adonis is connected with the Sun and the boar that kills



him with the rough winter, or in which Adonis is connected with the seed of the plants, which stays six months under the earth with Proserpina, and six months above the earth with Venus, and in doing so I have refuted the wrong explanations.

For we say that by Adonis the Philosophical Sun should be understood and on this all Philosophers agree. That is why a little poem reads: "All are equal to each other, Dionysus, Sol and Adonis". And Orpheus says that Adonis, the creator of the seed, has several names and that he is boy and girl at the same time. All these things do not refer at all to the common sun in the sky, but to the Philosophical Sun, for the latter is the expression of both sexes, and the sun in the sky is not. Thus the Philosophers give the same meaning to Dionysus, Sol, Adonis and Osiris (Osiris in embl. XLIV).

Now Adonis is killed by a boar, that is to say he is killed by a very sharp acid or dissolving liquid, by fiery boar's teeth, as it were. Just as Adonis, the Philosophical Sun is mortally wounded by the boar, its limbs being torn apart and dissolved. Venus, however, tried to come to the aid of her beloved and, when he was dead, she put him carefully between the lettuce. In the same way Osiris was killed by Typhon and torn to pieces, which were collected and buried by his wife Isis. The same annual mourning as for Osiris also followed the death of Adonis in Syria and the surrounding countries. For some days lamentation and weeping were heard, but after that they danced and made merry as if a dead man had risen and had been taken up in heaven. As a consequence the vain, pagan superstition arose and the religion, which extended enormously, for which the devil created the opportunity and provided miracles.

Adonis was the son of Cinyras, king of Cyprus, and of the latter's daughter Myrrha; so according to the legend Adonis was born out of an incestuous relation. When taken literally this is depraved, but taken allegorically it is not only allowed, but even necessary. For in this art nothing is achieved, if not father and daughter, or mother and son are united, and if from this union no birth results. The nearer the spouses are related to each other, the more fertile they will be, and the more distant their bloodrelationship is, the more sterile they will be. This is not allowed in a human marriage. In this way, however, Oedipus married his mother, Jupiter his sister and

likewise Osiris, Saturn, Sol and the red slave Gabritius married.

Sol speaks about Adonis, that is about himself, as follows in the Belinus metaphor in the *Rosarium*: "Know then, that my father gave me power, surpassing all power, and that he clothed me with the cloak of glory". And somewhat further on: "For I am unique and equal to my father and I take my servants out of their power and their nature and I clothe them, in all their works, with the lustre and the light that is mine and that my father gave me. For I am the excellent one, who heightens and weighs down all things and none of my slaves is more powerful than I am, with the exception of one, to whom it is given to be contrary to me. And this one destroys me, but does not destroy my nature. And this is Saturn, who separates all my limbs. After that I go to my mother, who collects all my scattered members. I am the one who lightens all things belonging to me, and I make light shine openly on the path of my father Saturn (embl. XII) and of my mother, who becomes my enemy".<sup>1</sup>

These pronouncements are so clear that they expel obscurity from the mind and eyes even of those who have only a moderate knowledge of this literature, and reveal to them the sun-light, which shines abundantly in the harmonies of things and persons, which we have just discussed. For the things that are true agree marvelously, even if they are hidden under a cover of allegories; and the things that are untrue and inconsistent in themselves or with other things, do not agree, but their ways lie in different directions.

#### SOURCE OF THE MOTTO

Ovid, *Metamorphoses*, Liber X, VII, 705-740.

#### COMMENTARY

In the Ovid passage quoted, in which Adonis, the hunter, is killed by a wild boar and in which he is wept for by Venus, rushing up, Venus changes the blood of Adonis into an *anemone*. In Maier's motto Venus coloured the *roses* red with her blood. I could not find out where this motto comes from, but I saw it mentioned in

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<sup>1</sup> Belinus metaphor in the *Rosarium Philosophorum*, in: *Art. Aurif.* II, 412-413.

Roscher<sup>2</sup>: "aber als sich die ihrem sterbenden Liebling zu Hilfe eilende Aphrodite an einem Dorn den Fusz verletzt habe, sind durch deren Blut die Rosen rot gefärbt worden".

The text of the epigram, the incest of Myrrha and her father Cyniras, is, just as the motto, taken from the Ovid passage mentioned.

The connection between the story of Adonis and the alchemical process, as expounded by Maier in the discourse, speaks for itself. Adonis came into existence from the incestuous union between Cyniras and Myrrha, that is to say that all manifestations come from one primary matter and therefore all differentiations, which can be perceived, are related to that one starting-point. Adonis is killed by a wild animal, in other words the Lapis Philosophorum is killed in the first instance, it is the stage of the putrefactio. The love of Venus and Adonis—now turning into the motif of the white roses—completes the process; the white roses are the symbol of the "whiteness", which precedes the coming into being of the "tinctura rubea"; Venus colours the white roses red.

### EMBLEM XLII

(fig. 42)

#### MOTTO

May Nature, Reason, Exercise and Literature be the guide, staff, spectacles and lamp for him who participates in chemistry.

#### EPIGRAM

Nature be your guide; follow her with your art willingly, closely,  
 You err, if she is not your companion on your way.  
 Reason be your staff, Exercise may strengthen your sight,  
 On account of which the things that are far away can be discerned,  
 Literature be your lamp, shining in the darkness,  
 In order to guard you against an accumulation of things and words.

#### SUMMARY OF THE DISCOURSE

The number of accidents, which may befall travellers who set

<sup>2</sup> W. H. Roscher, *Lexicon der Griechischen und Römischen Mythologie*, Leipzig, 1884-1890, "Adonis", col. 72, 10.

out on dark, slippery, dangerous roads, is countless. Let us mention four things, which the traveller needs, apart from victuals and a strong constitution. First he needs a competent guide guarding him against errors; secondly a solid stick, which prevents him from slipping on the slippery road; thirdly good eyesight and fourthly a lamp or a burning torch so that he may distinguish the partings of the ways.

Likewise he who sets out on the path of Philosophical Medicine needs—beside food and a healthy body—four things, which run parallel to the necessities just mentioned, namely *Natura*, *Ratio*, *Experientia* and *Lectio*; if one of the four is missing, the other factors have no effect. The philosophical vehicule rides on these four points of support, on four wheels as it were, and if one of the wheels is missing, the other three are no longer of any use.

Nature procures the natural matters and the gases, provides, as it were, the raw materials with which art works, by preparing and purifying them, and making them usable, so that the final aim of art can be prepared from them. Thus the potter uses water and earth in order to attain his object, the glass-blower takes for this purpose ashes and sand, the smith takes iron, copper, tin, lead, silver and gold, the tanner takes untanned hides and thus everybody chooses the raw materials needed for his work; and the Chemist acts likewise. Some Chemists already know their raw materials on the first day, others only after many years and most of them never know their raw materials.

Their first step should be to examine how Nature sets to work at its very centre, with the object of getting hold of the natural chemical subjects without damage or excess; that is why Nature should be their guide and companion on the long way and that is why its footsteps should be followed. After that Reason serves as a staff; it supports the steps so that the foot does not slip, for without forethought one stumbles. That is why the Philosophers say: "Think over the things you hear, and consider whether they are possible or impossible". For nobody is induced to believe or to do things which are impossible, unless he is feeble-minded, so that he takes true to be untrue and untrue to be true. The Philosophers add further to this that it concerns deeds and not words, but the words are at the service of the deeds, and not the other way round. To mention an

example: if somebody were to say that the Philosophical Tincture makes glass malleable, should I not have believed it, if reason made it acceptable? As the third item, Exercise will be the spectacles, with which the things that are far away can be seen close up; these are the optical instruments invented and made by art, which come to the aid of man's weak eyes and correct them. The experiments with mineral matters equal them either by means of the sense of hearing, or by means of the eyesight. The more of these exercises one remembers the more reasonable deliberation will be able to make mutual comparisons in order to distinguish truth from untruth. Finally, as the fourth factor, Literature follows, which lights the mind as if it were a lamp, without which there would only be darkness and dense fogs. However, the literature of good authors should be read many times in order to be beneficial to you. About this Bacasser says in the *Turba*:<sup>1</sup> "He who is forbearing and patient, will walk in the right way of this art; whoever believes to be able to gather fruits from our books more quickly, will be deceived in his hopes, and it were better for him if he had never seen nor touched them".

#### SOURCE OF THE MOTTO

Not found back in alchemical sources in its entirety.  
See also 1st half of the discourse of embl. XI.

#### EMBLEM XLIII

(fig. 43)

#### MOTTO

Listen to the garrulous vulture, which does not deceive you at all.

#### EPIGRAM

The vulture is standing on the top of a high mountain,  
Incessantly calling: It is said that I am white and black,  
Yellow and red and I do not lie at all;  
The same is the case with the raven, which is accustomed to fly  
without wings

<sup>1</sup> Bacasser in the *Turba Philosophorum*, in: *Art. Aurif.*, I, 36-37.

In the dark night and in the clear light of the afternoon,  
For the one as well as the other is the main thing of your art.

### SUMMARY OF THE DISCOURSE

Here and there we hear daily of birds, which imitate the human voice, like parrots, ravens, jackdaws and woodpeckers. Thus Pliny states from his time that Agrippina, the wife of the Emperor Claudius had a thrush, which imitated the human language. The emperors also had starlings and nightingales, which they had taught to speak Latin and Greek by teaching them regularly new words. As such cases of talking birds are not rare, it is no longer considered worthy of admiration, as, by exercise and habituation all birds suited to it, can learn to speak.

The vulture, about which the Philosophers speak, however, did not learn speaking by habituation, but by nature. The Philosophers say that it calls incessantly and proclaims in a loud voice which and what it is; herein it follows great monarchs, who enumerate their titles and inheritances at the beginning of their proclamations, and they do not do so from pride, but in order that all may know by whom they are governed, and that they may claim the right of succession.

Thus it is also of great moment that one knows with what colours the Philosophical Bird is equipped, as if they were arms and titles, and that it further be known by how far it excels other birds. It says, according to a quotation of Hermes in the *Rosarium*: "I am the black of the white, and the yellow of the red, and verily I am true and not untruthful".<sup>1</sup> It proclaims that it is black, white, yellow and red, and that is true, indeed, even if it has not yet actually got the three last colours, for it is the heir to them after all. That is why Rosinus says, in his book about the explanation of divine matters: "Receive the Stone, which is black, white, red and yellow, which is at the same time the wonderful bird, flying without wings in the dark of night and in the clear daylight. For out of the bitterness which arises in its throat, colour is obtained, and out of its blood, the pure water is obtained".<sup>2</sup> And Alexander says: "Sons, receive the Stone with the four colours".<sup>3</sup> All these four principal

<sup>1</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 323.

<sup>2</sup> *Rosinus ad Saratantam Episcopum*, in: *Art. Aurif.*, I, 340.

<sup>3</sup> *ditto* as 2.

colours are present in the Stone in this sequence, which the Philosophers prescribe over and over again in their books.

Not without reason is the philosophical subject called the vulture: among the vultures the black ones occur most often; they are rapacious, but they fly slowly on account of their body-weight. It is said that these birds get pregnant without male sperm and that they give birth without mating and that the young ones become about a hundred years old. They are used to building their nests on high rocks (analogous to embl. VII), and nobody can reach their nests. Usually there are two young ones and they form a defence against snakes. They are made fertile by the South-East wind. When they begin to lay eggs, they have already brought something like a nut with them from their Indian journey, in which there is something moving and which gives a sound and when they have put this in their nest, they produce many young ones, only one of which will live, and which is called *Immulus*. *Hermodorus Fonticus in Coelius* states that of all animals the vultures are the most innocuous, as they do not touch any of the things men sow, plant and grow. Further they do not kill any animal and do not eat birds, not even when they are already dead. On account of these things the vultures were much respected in predictions in Antiquity, as the first information from Rome shows.

As the Philosophical Bird expresses approximately all properties of the vultures, it is rightly called the vulture by *Hermes* and others, as the Philosophical Vulture is also slow in its flight, is black of colour and becomes pregnant of its own. Thus the *Rosarius* says at the end: "It is the Dragon which marries itself, fertilizes itself and produces on the same day".<sup>4</sup> And *Rosinus ad Saratantam* says: "It itself is the snake, which tempts itself, fertilizes and gives birth on that same day".<sup>3</sup> The vulture lives very long and multiplies. What *Virgil* writes about the *Phoenix* can be applied to the vulture; indeed, they are identical. Thus *Virgil* says about the *Phoenix*:

"Alipedem cervum corvus ter vincit, at illum  
Multiplicat novies *Phoenix* reparabilis ales".<sup>6</sup>

"Thrice the raven outstrips the swift-footed stag in length of

<sup>4</sup> *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 400-401.

<sup>5</sup> *Rosinus ad Saratantam*, in: *Art. Aurif.*, I, 325.

<sup>6</sup> This is *Ausonius*, *The Eclogues*, V, line 5, 6.

years; while that bird which renews its life, the Phoenix, multiplies ninefold the raven's years".

It is exceptionally difficult to reach its nest, as it fights with the Mercury serpent and conquers it; that means that Sol fights with Luna. It is conceived of the wind and borne in the latter's belly (analogous to embl. 1) and it is born in the air (analogous to embl. xxxiv). The Aetites Stone or the Eagle's Stone has a little stone in it that gives a sound, as many write. In the Philosophical nest only one Immulus is found. The Philosophical Bird is also very innocent, because it does not harm anybody, and because it brings profit to everybody who knows it and is very useful in explaining auguries.

It may be asked why it builds its nests in the mountains and calls incessantly? Rosinus answers to this with a quotation from Rhazes: "Look at the tops of the mountains which are on the right and the left side and ascend them, for our Stone is found there; and it is also in another mountain, which has all kinds of colouring matters and vapours and species". Morienus says: "Ascend the high mountains, which are planted with trees, for our Stone is to be found there". And Hermes says: "Take the blessed Stone, crush it and wash the red Stone; and what is found in the mountains and especially in old sewers is prepared from it".<sup>7</sup>

#### SOURCE OF THE MOTTO

Hermes Trismegistus, *Tractatus vere Aureus, de Lapidis Physici Secreto*, in: *Theatr. Chem.*, IV, 618:

"Scitote ergo rumoris inquisitores, et sapientiæ filii, quod vultur super montem existens, clamat voce magna: Ego sum albus nigri et rubeus albi et citrinus rubei et certe veridicus sum. Et scitote, quod caput artis est corvus, qui in nigredine noctis et claritate diei volat sine alis. Ex amaritudine in gutture existente, coloratio accipitur: a suo vero corpore rubor exiit, et de suo dorso mera aqua accipitur".

"May you know, investigators of the rumour and sons of wisdom, that the vulture living on the mountain, calls in a loud voice: I am the white of the black, and the red of the

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<sup>7</sup> Rosinus *ad Saratantam*, in: *Art. Aurif.*, I, 341.



white and the yellow of the red, and I am very truthful. And may you know that the most important things of art is the raven, which flies without wings in the dark of night and in bright daylight. From the bitterness that is in its throat the colouring-matter is obtained: the redness originated from its true body and the clear water from its back”.

The above text is also cited in:

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 275 and 323.

#### COMMENTARY

The vulture and the raven symbolize the circular motion of the alchemical process; the black raven represents the stage of the putrefactio; the vulture is the completion of it, and as such also contains the initial stage and all intermediate stages, that is to say it is black, yellow and red. The motif of the mountain is already used by Maier in embl. XII.

In this emblem Maier has pictured a passage from the *Tractatus Aureus*. A variant of it is found in the *Codex Vossianus Chemicus*, no. 29, University Library of Leiden, (folio 73 v.) (see fig. 80). Here, a crowned retort is pictured with the moon and the sun on both sides in the vessel. At the bottom, in a closed globe, the alchemical process takes place in the Microcosm. At the bottom of the globe lies the tail-devouring dragon, on top of the eagle, above it the raven. The accompanying explanations reads: “principium artis est corpus corvi et cauda anguis est eius finis”.

In the discourse Maier says that the Philosophical bird expresses approximately all the properties of the vulture, and is therefore rightly called the vulture by Hermes and others, as it is also slow in its flight, black of colour, and becomes pregnant of its own. This meaning of the vulture also occurs in the *Horapollo* (see Thorndike, I, 333); according to the *Horapollo* the vulture is always female and symbolizes the Egyptian year, because it is fertilized by the wind during five days, is 120 days with young, takes care of its young for 120 days, and prepares itself for the repetition of this process during the remaining 120 days.

## EMBLEM XLIV

(fig. 44)

## MOTTO

Typhon kills Osiris by a ruse, and after that he scatters his limbs far and wide, but the famous Isis collects them.

## EPIGRAM

Syria has Adonis, Greece has Dionysus,  
 Egypt has Osiris, who is nobody else but the Sun of Wisdom:  
 Isis is the sister, wife and mother of Osiris,  
 Whose limbs are dissected by Typhon, but which she joins together.  
 But the phallus was lost, spread over the waves,  
 For the Sulphur, which produced Sulphur, is missing.

## SUMMARY OF THE DISCOURSE

The allegory of Osiris has been restored to its original meaning in the first book of the hieroglyphs,<sup>1</sup> and that origin has a bearing on chemistry. There is no point in repeating the same things here, but, within the scope of Antique Chemistry, we shall show a number of parallels, which have been sung of, and pictured by so many poets, and which are used over and over again and are of lasting importance. For whatever arguments you might advance, in order to convince me that Osiris was a God or King of the Egyptians, I would not believe it.

Osiris is the Sun, but in the meaning of the Philosophical Sun, whose name is connected with the original Sun, because the common people, who know nothing else but the common, earthly sunlight, considered it as such. The Philosophical Sun takes its name from the earthly sun, which takes its energy from the Philosophical Sun. Therefore Sol is, at the same time, Osiris, Dionysus, Bacchus, Jupiter (embl. XII and embl. XXIII), Mars (embl. XXIII), Adonis (embl. XLI), Oedypus (embl. XXXIX), Perseus (discourse of embl. XX), Achilles (embl. XXXV), Triptolemus (embl. XXXV) Pelops, Hippomenes (frontispiece and epigram of the frontispiece) and Pollux. In the same way Luna is also Isis, Juno, Venus (embl. XXIII and embl. XLI), the

<sup>1</sup> M. Maier, *Arcana Arcanissima hoc est Hieroglyphica Aegyptio-Graeca etc.*

mother of Oedypus, Danaë, Deidameia, Atalanta (frontispiece and epigram of the frontispiece), Helena (discourse embl. xxxv), Latona (embl. xi), Semele, Europa, Leda, Antiope and Thalia. These are the parts of the combination, after which the Stone is named before the treatment; with the collective name of all the metals the Stone is called Magnesia. After the treatment the Stone is called Orcus, or Pyrrhus, or Apollo or Aesculapius.

The things added to it are called Typhon (this embl. XLIV), Python (discourse embl. xxv), or Aper (embl. xli). The masters of art are Hercules (pictured in the frontispiece), Ulysses, Jason, Theseus or Pirithous. The troubles and dangers which they suffered are innumerable, and resemble the labours of Hercules, the wanderings of Ulysses, the dangers which Jason endured, the enterprises of Theseus and the stay in the underworld of Pirithous. The amount of writings about this material and the theories are considerable, and Vulcan, Mercury and Saturn repeatedly occur in all their pages; Saturn as the father and the cause of all things, without which there is nothing, Mercury as *materia* and *forma*, and Vulcan as the active force therein.

The Sun marries the Moon, as Jupiter marries Juno, and Saturn Rhea, and Osiris Isis. Dionysus was taken from the womb of his mother Semele, when she was burnt by the lightning of Zeus, and he was put into the thigh of Zeus to ripen there; likewise Aesculapius from his mother Coronis. When Dionysus had grown to be a man he acquainted people with a new drink, wine, and spread it as far as India. Osiris and Isis taught people the use and cultivation of plants and Aesculapius taught them the application of medicine. He was called Dionysus by the Greeks, Bacchus by the Romans, Osiris by the Egyptians and Adonis by the Syrians. Oedypus killed his father and married his mother; Perseus killed his grandfather, Typhon killed his brother Osiris, the wild boar killed Adonis, Ceres, the nurse of Triptolemus, killed the latter's father Eleusius. Hippomenes conquered Atalanta with a golden apple, and Tantalus, the father of Pelops, won Hippodameia by chariot racing. Osiris was cut to pieces and joined together by his mother Isis, who was at the same time his wife and sister. As a boy Pelops was cooked, and after Ceres had eaten his shoulder, she vivified him and then gave him an ivory shoulder. Achilles and Triptolemus were placed in

charcoal by night and nursed by milk in the daytime; Achilles by his mother Thetis, and Triptolemus by his nurse Ceres.

Achilles and Helena were the cause of the Troian war; she set the ball rolling and he executed it. Helena was born out of an egg; and the apple of Eris, thrown at the wedding of Peleus and Thetis, from which union Achilles was born, was the primary cause of the rape of Helena. Pollux belonged to the Argonauts, who were supposed to have lived about fifty years before the Troian war, if they lived at all. Pollux and Helena, however, were born out of one egg, so Helena was an old woman when Paris raped her, and when Medea married Achilles, Achilles was in the Elysian fields and Medea would have been a toothless old woman, if she had not rejuvenated herself, as she had also rejuvenated Jason's father Aeson, just as Ceres rejuvenated Pelops, for which reason she was called the one twice rejuvenated.

Perseus obtained a winged horse from Athena and gave her Medusa's head in exchange, Mercury gave her a sword, and other gods gave her yet other weapons; Triptolemus got a chariot drawn by winged dragons. When Athena was born from the head of Jupiter, Sol and Venus were united, and it rained gold on Rhodes. And Jupiter came to Danæ as a golden rain, to Leda in the shape of a swan, to his sister Juno in the shape of a cuckoo, as a bull to Europe and as a satyr to Antiope; and thus there exists an agreement, a concordance in all things.

#### SOURCE OF THE MOTTO

As is clear from book I of Maier's *Arcana Arcanissima*, his main source was Diodorus Siculus, *Bibliotheca Historica*. Diodorus Siculus, Liber I, 21, 2 sq comes nearest to the text of motto and epigram.

#### COMMENTARY

The death and resurrection of Osiris is used by Maier as a symbol of the whole alchemical process; Osiris who is killed by the Typhon, corresponds to death and putrefaction. Osiris' members are spread here and there, that is to say he returns to the primary matter and is included in the circulation process of coming into existence and perishing in Nature. Isis collects his limbs and the killed Osiris

risers, by which the cycle of perishing and coming into existence is concluded.

The discourse is striking on account of Maier giving many parallels for the most important parts of the alchemical process, namely for Sol, Luna as the two main forces, for fire as the active principle and for the alchemist himself as the one who assist in this process and has to fulfil his task. In his *Arcana Arcanissima* (liber I) Maier draws similar parallels to the ones in the discourse of this emblem, and, speaking about Osiris, Isis, Typhon, Mercury, Vulcan, Pallas, Thetis, Saturn, Jupiter, Venus, Apollo, Pluto and other gods, he says that they were considered as gods or planet-gods by the common people, but that they actually referred to alchemy, and that this can be established from the writings of Greek and Egyptian authors, notably by Diodorus.<sup>2</sup>

Diodorus Siculus, liber I, gives more than enough rise to drawing alchemical parallels; some examples which illustrate Maier's statement are, for instance (quoted in Latin):

I-II-I:

"Ceterum vetustissimos in Aegypto mortales mundum supra se contemplatos et non sine stupore demiratos universi naturam duos esse deos existimasse æternos et primos, Solem quippe et Lunam, quorum istum Osirim, hanc Isidem appellarint".

From this Maier makes the analogy between Sun—Moon and Osiris—Isis, at the same time the two principles as startingpoint of the Universe, male and female.

I-II-4:

"Cornuaque ei (Isidi) addunt, quia talis lunæ adspectus est, quando falcis imagine crescit et decrescit, et quia bovem apud Aegyptios consecratam habet".

From this Maier makes the parallel Isis-Luna, Luna with the crescent of the moon as a partner of Sol, for instance in embl. XI and XXV.

<sup>2</sup> M. Maier, *Arcana Arcanissima*, liber I, p. 3, speaking about the gods: "Quæ nomina etsi sequentibus temporibus communiter et alias semper a vulgo pro Deorum numinibus aut planetarum, seu stellarum cælestium corporibus accepta sint, a chymix tamen restauratoribus, et propagatoribus primitus in artis occultationem introducta sunt; quod ex omnibus circumstantiis singulorum tam apud Græcos, quam Aegyptios scriptores manifeste conspicitur, imprimis apud Diodorum. . . ."

I-12-3- and 4:

"Ignem porro Vulcanum per interpretationem dici, et ipsum magni dei loco venerandum".

In the discourse of embl. XLIV, Maier also mentions Vulcan as personification of the active principle fire. This is, at the same time, pictured in embl. XXIII, where Vulcan is standing near the fire, assisting at the birth of Pallas Athena.

(4): "Terram vero, pro nascentium quasi conceptaculo ab ipsis habitam, matrem nominari; similiter græcos quoque Demetram eam vocare verbo successu temporis paulum immutato, quum antiquitus gen metera—id est, terram matrem—nuncupassunt, attestante Orpheo his verbis: Terra Ceres, cunctis mater, dans omnia large".

On this are based the representations of Terra Mater, hence the analogy with Demeter and Ceres, as Maier also mentions in the discourse of embl. XLIV. With its motto, taken from the *Tabula Smaragdina*, embl. II gives a picture of Terra Mater as a personified terrestrial globe; embl. xxxv elaborates the theme in the shape of a nursing Ceres, who feeds the Lapis Philosophorum on milk and fire, as is indicated by the *Turba Philosophorum*.

I, 13-3: Vulcan as the inventor of fire;

I-13-4: Osiris and Isis spring from Saturn, and the other gods and goddesses spring from Isis and Osiris;

I-13-5: conformity between the various gods (analogous to the epigram);

I-25-1: Isis is identical to Ceres (analogy to embl. XLIV and xxxv);

I-25-2: Isis as inventress of medicine,

etc. etc.

From these quotations, and really from the entire first book of Diodorus Siculus, *Bibl. Hist.*, it is clear that Maier has got his inspiration from it, for the motto, epigram and discourse of embl. XLIV. Herewith Maier brings the mystery-religions into the field of his alchemical contemplations and effects an interaction between them; he alternately renders his conception in pictures taken from the alchemical or mythological literature. Further, he makes unexpected changes from one field to the other, again and again, by which his metaphorical language gets such a capricious character.

The mixture of mythology and alchemy also fits in with the con-

ceptions of the Rosicrucians, who got their inspiration for the title of one of their most important writings from alchemy, namely *Die Chymische Hochzeit*, alluding to the union of the opposites, in the form of the marriage between man and woman, but which at the same time includes mythology as the key to the revelation of the great secrets of God, the Cosmos and the human soul, a revelation which the Fraternity of the Rosicrucians promised its adepts. They based their theories on the old secret wisdom of Egyptian and Greek traditions, the real meaning of which should have been revealed to Christian Rosenkreuz.

Osiris is the raw material of the alchemical work, from which the gold medicine is made; Isis, the soul of Osiris, is changed in to Osiris and that is the sign of perfection. Typhon is the fiery spirit, which pierces Osiris.<sup>3</sup>

#### EMBLEM XLV

(fig. 45)

#### MOTTO

The Sun and its shadow complete the work.

#### EPIGRAM

The Sun, the bright torch of Heaven does not penetrate dense bodies,  
That is why there remains shadow on the parts turned away  
from it;

Although the shadow is the most insignificant of all things,

It has been of much use to the Astronomers:

But Sol and its shadow give more gifts to the Philosophers

Because it means the completion of the art of making gold.

#### SUMMARY OF THE DISCOURSE

In the same manner as fire, kindled in a round; globular space,

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<sup>3</sup> M. Maier, *Arcana Arcanissima*, I, 12: "Osiris... pro materia artis, ex qua Medicina aurea componatur, absque omni circuitione habetur. . . . Isis. . . anima Osiridis. . . . Osiris. . . . ardens. . . . Isidem seu coniugem seu sororem amantissimum facillime ad se convertat, quæ est ultima perfectio. Typhon spiritus igneus qui Osiridem penetret. . . ."

Isis belongs to the legendary figures who are connected with the origin of alchemy. She is invoked in the *Poimander*. See also the letter of Isis to Horus, publ. in Berthelot, *Coll. des Anc. Alch. Gr.*, I, 31-36.

lights all the walls around, at the top and at the bottom equally strongly, except if there is a chair, a table or such like between the source of light and the walls, on account of which a dark patch of shadow arises, in the same way the Sun lights up, in the vast firmament or domed theatre, each hole of heaven and the diaphanous, light-receiving celestial bodies, like the fixed stars and the wandering stars, with the exception of the places where the density of the earth places itself between the sun-rays and those bodies. For there a black, dark shadow reigns, which is called night, a night lasting so long till it is driven away by light.

For the shadow or the night are the lack or the absence of light; on the other hand, day is a radiation of light. Shadow cannot stand the sight of the Sun and therefore it flees now to that side, now to this side of the earth, and hides itself from the Sun. Sun and shadow never see each other face to face, but the Sun continuously pursues the fleeing shadow, as Buchananus states.

In imitation of the Sun, and using the Sun as an example, the Philosophers have also observed such a black, nebulous and volatile shadow. That is why Hermes says: "Sons, withdraw its shadow from its radiation, that is to say, take care that you conduct your Sun through the first moving thing over which Vulcan rules, that also that part of your Earth now covered by a shadowy night may enjoy the bright Sunlight".

If the Firmament of heaven, with its natural division into separate days of twenty-four hours, were not moved by the first motion, but exclusively by the second, annual motion of the Sun, our antipodes would have night during six months, and we ourselves a long day of six months, and vice versa, they would have a long day, and we a long night of six months. The whole year would consist of one day and one night, as it is indeed the case at the two Poles, as experience and reason show us. But thanks to Divine Providence the planets have a first and a second motion, and consequently the year is subdivided into many days.

The action of Sun and Shadow together makes it possible for day and night to exist. The Sun cannot do so all by itself, for it is exactly the property of the Sun to light all opposite places with its rays, and the shadow only occurs there where the Sun is not present. Likewise the Philosophical Sun creates day by its shadow; the Sun



is Latona or Magnesia, and the shadow should be chased away from them by a fiery medicine (cf. embl. XI, Latona has black spots in her face and should be made white), as Democritus says in book three of the golden table.<sup>1</sup> In Astronomy the shadow is of such great moment that this science would have no right of existence without the shadow. The Chemists place such a great meaning on the shadow that they assert the shadow effects the completion of their work.

What is the meaning of the Sun without Shadow? The same as a clapper without a bell, for the clapper gives the first motion but the bell is the sounding-board; the clapper is the plectrum and the bell the musical instrument; the Sun is the plectrum, the Shadow is the musical instrument, the Sun is the tongue, the Shadow is the language (the Sun, as *potentia activa*, is active in the Shadow, the *potentia passiva*; the contrast is analogous to the contrast Sol-Luna, as, for instance, in embl. xxx). The shadow is very humble, far away from the Being; and likewise the Philosophical shadow is blacker than the blackest black and more insignificant than seaweed, at least in the opinion of man. It is the same here as with the opinion of man in regard to fire, water, earth and air; for what is more useful than fire, more precious than water, more lovely than earth, from which flowers and animals spring, what is more pleasant than air, without which everybody dies? And nevertheless—as it is spread far and wide on behalf of man—it is deemed to be of little value by the wrong notions among men. Thus also the shadow, the common as well as the Philosophical Shadow, is underrated; he who stays in darkness, in subterranean shadows for a long time, is blinded when he is suddenly brought into bright light. In the same way people who remain lingering and working in the Philosophical Shadow without adding light to it, lose their power of judgment and insight, and their work does not lead to results.

The warmth is greatest when the sun is standing at its highest point, and then the shadow is smallest; in the same way the shadow becomes smaller in the Philosophical work, when the heat increases and vice versa.

Thus the work should begin, when the Sun returns from the South

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<sup>1</sup> M. Maier, *Symbola Aureae Mensae, etc.*, book III.

side to our Pole, when the Sun is in Capricorn; and the first stage of the work will be completed at the time the Sun stands in Aries; then the women's work commences (see embl. III and XXII), till the Sun stands in Leo; and after that, the one work proceeds from the other, till the year seizes its tail with its head, like a snake (embl. XIV), that is to say, till it is completed.<sup>2</sup>

#### SOURCE OF THE MOTTO

*Rosarium Philosophorum*, in: *Art. Aurif.*, II, 249:

"Fundamentum artis est Sol, et eius umbra".

"The foundation of art is the Sun and its shadow".

*Ditto* 314:

"Nullum tingens venenum generatur absque Sole et eius umbra, id est uxore".

"No dyeing poison is generated without the Sun and its shadow, that is, its wife".

The *Rosarium* texts are derived from the *Turba Philosophorum*, in: *Art Aurif.*, I, 17:

"Aqua permanens est aqua vitæ munda et nullum venenum tingens generatur absque sole et sua umbra".

"The everlasting water is the pure water of life, and no dyeing poison is generated without the sun and its shadow".

#### COMMENTARY

The phrase from the *Turba* quoted under the citation of the source is ascribed by David Lagneus to Arnoldus of Villanova in his *Harmonia seu consensus Philosophorum Chemicorum magno cum studio et labore in ordinem digestus*, in: *Theatr. Chem.*, (IV, 735) and elucidated as follows: "Qui cum Sole et eius umbra venenum, id est, Mercurium tingunt, Lapidem nostrum perficiunt, qui dicitur gumma perfecta et magna"; "Those who colour the poison, that is Mercury, with the Sun and its shadow, perfect our Stone, which is called the perfect and great gumma".

<sup>2</sup> When the Sun stands in Capricorn, it is winter in the northern hemisphere and when it stands in Aries spring commences; so it is said that the first stage of the work must be completed before the end of the winter; the same is mentioned in the vision of Jodocus Greverus about entering the Garden of the Hesperides; see the commentary on the frontispiece.

As appears from the Rosarium text, quoted in the citation of the source, Sun and Shadow are the same as the Sun and his wife, so here again the perpetually returning motif of Sol et Luna.

The poison is dyed, in other words the darkness of the shadow, the dark Moon, is dyed into "tinctura rubea".

#### EMBLEM XLVI

(fig. 46)

#### MOTTO

Two eagles meet, the one from the East, the other from the West.

#### EPIGRAM

Jupiter sent a couple of eagles from Delphi,  
As is said, to the regions of sunrise and sunset:  
While he desires to investigate into the centre of the Earth,  
These eagles return simultaneously to Delphi, according to the  
legend.

But they are two stones belonging together, which meet in the  
right way,

The one from the East, the other from the West.

#### SUMMARY OF THE DISCOURSE

In his *De Natura Deorum*, Cicero states that Apollo was the eldest son of Vulcan. This opinion is true, if taken allegorically; for Vulcan produced the Philosophical Sun, and that is Apollo. But it is of more importance that Apollo was Jupiter's son. When, however, Latona was pregnant with Apollo and Diana, Juno sent the Python to her out of jealousy, in order to pursue her. After many wanderings, Latona arrived at the island of Ortygia, and went to her sister Asteries, who reigned there. When the island had been almost completely washed over by the sea, Asteries showed Latona a place where she could give birth to her children; that place was called Delos and previously Adelus. First Latona gave birth to Diana, who assisted her mother as a midwife at the birth of her brother Apollo, immediately after her own birth. That is the reason why Diana was henceforth invoked by women in labour, and they called her Lucina, or Ilithyia, because she showed the light to new-born children.

When Apollo had grown-up, he killed his mother's tormentor, the

Python, with his arrows and he also killed the cyclops, because they had made the lightning in order to kill Jupiter's son Aesculapius with it, whom the incensed Jupiter had cast off to the underworld, because he had restored Hippolyte, who had been hurled from his horses, to life.

These are all chemical stories, for Latona (embl. XI), Cynthia, Apollo and the Python stand for the components of chemical art, which are mutually connected in the manner described above. As, however, these figures are popularized in Antiquity by poets like Orpheus, Linus, Musæus and Homer in their writings, these stories lead the ignorant to a religious worship of Apollo. That is why Apollo was venerated in many places of Europe and Asia, and temples were erected for him.

Especially in the temple of Delphi, Apollo was venerated and many heavy statues of solid gold and silver were erected to him. Further precious gifts were dedicated to him, as for instance, Pausanias states about Hippocrates, who hung a metal skeleton in the dome of the temple. The famous tripod was also dedicated to Apollo by Pelops on the occasion of his marriage to Hippodameia, the daughter of Oenomaus, King of Elis; Mulciber (a surname of Vulcan as a smith) had made this tripod for Pelops. The tripod was put in the middle of the temple, and Pythia made her prophecies, sitting on it. Delphi was situated at the roof of the Parnassus, and beside the temple there was a spring with prophesying power, called Cassiotes, which made burning torches extinguish, when they were taken right up to it, and made them flame up again, if taken farther from the spring. A drink of this spring-water gave people the gift of prophesying, but shortened their lives at the same time. As people came flocking to the oracle at Delphi from all parts of the world, from Asia and Europe, the poets called that place the centre or the navel of the earth and to prove this, they used Jupiter as an example, who sent out two eagles in opposite directions, which proved this fact. In respect of history, this is not true, in respect of Chemistry it is. For the whole Apollo figure is, as already mentioned, of chemical origin, but, under the influence of the devil, superstition was established among men in the name of Apollo.

The two eagles are the two Stones, one of which comes from the East, the other from the West. The philosophers have shown this

in many places. Jupiter sent them out as armourbearers. The eagle is kindly disposed to Apollo, as it puts the young ones to the test of the Sun; if the young ones cannot stand the Sun, the eagle casts them off as being inferior. It is said that eagle's feathers cannot be destroyed when joined together with other things; further, that they can easily be gilded. The eagle does not die of illness or old age, but of hunger, because the growth of the curved upper beak prevents it from taking food; however, if it has thrown off that upper beak, it immerses itself three times in a spring and appears rejuvenated. That is why the Psalmist says: "Your youth will be rejuvenated like that of the eagle". The eagle is never touched by lightning; it fights with the Dragon, which tries especially to capture the eagle's eggs.

All these things were the reason why the Philosophers compared the eagle with the Stone of their work; innumerable examples of this can to be read in the books of the Philosophers.

#### SOURCE OF THE MOTTO

*Consilium Conjugii, seu de Massa Solis et Lunae*, in: *Theatr. Chem.*, V, 435:

"Et Aristoteles in Epistola ad Alexandrum dicit: Quod huius artis duo sunt lapides principales, albus et rubeus, mirabilis naturæ. Albus in occasu Solis incipit apparere super facies aquarum, abscondens se usque ad mediam noctem, et postea vergit in profundum. Rubeus vero ex opposito operatur, quia incipit ascendere super aquas in ortu Solis usque ad meridiem, et postea descendit in profundum".

"And Aristotle says in his letter to Alexander: that two stones are the most important of this art, the white and the red stone, which have a wonderful nature. The white one begins to appear in the West above the countenance of the waters, hiding till midnight, and after that bends to the depths. The red one, on the other hand, operates from the opposite direction, because it begins to rise above the waters in the East and continues till noon, and descends afterwards to the depths".

#### COMMENTARY

This emblem is a mixture of alchemical text—Maier found the

source of the motto in the *Consilium Conjugii, seu de Massa Solis et Lunae*- and associations with the Apollo sanctuaries at Delphi, which was considered to be the centre of the earth in Antiquity. That the *Consilium Conjugii* was doubtless Maier's source for this emblem, is clear from his *Arcana Arcanissima* (p. 123), in which he quotes said text in connection with a discussion of the Apollo sanctuaries in Delphi and Jupiter's desire to find the centre of the earth. Maier then concludes: "Hæ sunt igitur duæ aquilæ quæ conveniunt in medio terræ, ibique aurea aquila pro monumento statuitur". The meaning of the centre of the earth is the centre of the Microcosm, parallel with the centre of the circle as the symbol for God (cf J. Dee, *Monas Hieroglyphica*, embl. XXI).

About the meaning of East and West (also holding good for the following emblem XLVII) Maier says in the discourse of embl. II: "... Philosophi testantur, quod unum veniat ab oriente et alterum ab occidente, fiantque unum, quid plus administratur hisce, quam mixtio in suo vase, calor temperatus et nutrimentum".<sup>1</sup>

### EMBLEM XLVII

(fig. 47)

#### MOTTO

The wolf, coming from the East, and the Dog, coming from the West, have bitten each other.

#### EPIGRAM

The Wolf comes from the place where the Sun rises;  
But from where the Sun sinks into the Sea,  
The Dog comes, in raging fury:  
The one bites the other, and the other bites back, in a torturous  
rage,

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<sup>1</sup> East-West has a cosmological meaning; the world originated from East to West; a view arising from a Sun-cult, as sun and life dawn in the East and set in the West. (In Old-Egypt, the dead were carried along the Nile to their tombs on the west side) (see Plutarch, *Isis and Osiris*, 355 A or 381 B). In the emblems of the *Horapollo* the scarab rolls its ball of dung from East to West, in order to give it in this way the shape of the world, which also originated from East to West (see G. Boas, *The Hieroglyphics of Horapollo*, Bollingen Series XXIII, New York 1950).

They were both seen furious, with their muzzles wide open.  
 They are the stones belonging to each other, which are given away  
 for nothing,  
 Everywhere, to all, at all times; may you understand them.

### SUMMARY OF THE DISCOURSE

In many places, the Philosophers have spoken about the two Stones, which are given to us for nothing, for instance Isaac and Arnoldus and others more, among whom Avicenna, who writes that they lie hidden in the dung, despised by the people and which, when they are united, perfect the masterpiece. Some bring Mercury to the fore, coming from the West. The author of the marriage between the Sun and the Moon,<sup>1</sup> cites the following about the two stones from the letter of Aristotle:

"There are two stones in this art, a white one and a red one and of a wonderful nature. The white one begins to appear in the West above the surface of the waters, hiding itself till midnight and afterwards turning to the depths; the red Stone acts from the opposite direction, and begins to rise in the East above the waters till noon and afterwards descends to the depths".

These two Stones are the two eagles already mentioned which were sent out from Delphi by Jupiter; at the same time they are the wolf and the dog, which meet from opposite parts of the earth and bite each other in frenzy, or, as Rhazes testifies in his letter: "These Stones are the true Bezoar, the most excellent of which, obtained from the belly of wild animals, is sent by the East-Indies, and of which the West Indies, Peru, gives the Stone of a more inferior quality, obtained from tame animals. Thus the East gives the very grim Wolf and the West the Dog to men, that is to say the Sulphur comes from the Orient and Mercury from the Occident; the latter is soft and mouldable, the former choleric and furious. When they meet for the first time, they bite each other, in which the dog gains the first victory on account of its size, and in doing so, half kills the wolf; but after that the wolf regains its forces and

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<sup>1</sup> This is: *Consilium Conjugii, seu de Massa Solis et Lunae*, in: *Theatr., Chem.*, V, 429-507; quotation on p. 435; at the same time, source of the motto of the previous embl. XLVI.

kills the dog, but this takes place at the expense of all its own strength, so that it also dies".

Rosinus ad Euthicium says about the wolf: "Of both it is the conquering fighter, and it destroys all bodies it meets; it is white during its appearance, and red after its appearance; it is the male that marries the moon and about which some believe that it is gold of the most precious composition, which cannot be dissected any more, and whose footsteps can never be wiped out, because God allotted it to the holy Philosophers and the chosen ones. Know then that Nature took its peer as an enemy". And somewhat further on Rosinus says: "The Sulphur is the most powerful, and fights against the fire and can stand the fire and is endured by the fire; for out of this combination, the most precious colour arises, and the sulphur, volatile by nature, cannot volatilize any more, because it is penetrated, linked with the soul and the body. The question, which stone is the most powerful, is answered by: The Stone that is no Stone is stronger than the other one, which is its enemy; the red stone is stronger than the others, for, by its strength, it makes the allies powerful".<sup>2</sup>

So the wolf from the East is stronger than the dog from the West, although the wolf does not enjoy its victory, but dies at the same time as its enemy. The colour-giving poison proceeds from both of them; the difference between wolf and dog is slight, for the dog has the shape of a wolf, and the wolf has almost become tame by a long line of descent. Likewise the difference between Sulphur and Mercury is slight, as they mutually descend from one another. The Mercury produces the Sulphur and the Sulphur purifies the Mercury.

Rosinus says about this: "Its colour originates from its bitterest bitterness, and its bitterness originates from the impurity of the metal". The question whether its red colour will once shine, is answered in the affirmative by Rosinus; and Rosinus answer, to the question whether it is hotter than fire, that the heat of the fire is to the latter's heat as water is to fire; it is stronger than fire, for, when fire which is brought into contact with fire, one fire consumes the other fire".<sup>3</sup> From this it appears that one serves the other as

<sup>2</sup> The quotations are from: Rosinus ad Euthicium, in: *Art. Aurif.*, I, 281-282.

<sup>3</sup> Rosinus ad Euthicium, in: *Art. Aurif.*, I, 286.



food and becomes smaller in the same proportion as the other increases, till one dominates the other and that means that the dragon devours the serpent. It sometimes happens on the battlefield, that the party which suffers the severest losses, nevertheless wins. It is the same with the dog, which, although it lay down defeated, did not quite succumb like one conquered, as it took hold of its enemy so firmly that the one could not live without the other and the one should not die without the other.

#### SOURCE OF THE MOTTO

Rhazes, *Epistola*, cited in Petrus Bonus, *Margarita Pretiosa Novella Anno 1330*, in: *Theatr. Chem.*, V, 633.

Identical with Rhazes *Epistola*, is, *Opusculum Authoris ignoti*, in: *Art. Aurif.*, I, 416-419; citation on p. 418:

"Lupus noster in oriente invenitur, et canis in occidente: iste momordit illum, et iste momordit istum, et fiunt rabidi ambo, et interficiunt se ad invicem, donec fiat ex eis toxicum et tyriaca".

"Our wolf is found in the East, and the dog in the West; the one bites the other, and the other bites back, and they both become furious and they mutually kill each other, till the poison originates from them as well as the medicine".

#### COMMENTARY

Like the previous embl. XLVI, this emblem deals with the union of the opposites, as has already occurred in various forms, e.g. in the emblems IV, XVI, XXI, XXX, XL and XLV.

The picture of the emblem about wolf<sup>4</sup> and dog<sup>5</sup> show great likeness to a picture from Lambsprinck's emblems (the latter's embl. v, p. 15) (*fig. 81*). The motto of this reads:

"Lupus et Canis sunt in una domo,

<sup>4</sup> The meaning of wolf-dog is, in general, sulphur-mercury, in the polyvalent meaning of it. The chemical meaning of the wolf is antimony; see: R. Winderlich, "History of the Chemical sign language", in: *Journal of Chemical Education*, 30, (1953), p. 58-62.

<sup>5</sup> The dog is the volatile mercury, connected with the dark, chthonian side of Luna; see Roscher, *Lexicon der Griechischen und Römischen Mythologie*, II, 3185.

Postremo tamen ex his unum fit",  
 "Wolf and Dog stay in one house,  
 Nevertheless an unity arises out of them at the end".

Like Maier Lambsprinck expatiates on their origin from opposite directions: . . . . tamen a Philosopho nobis indicatur, utrumque unam habere originem, Lupum scilicet ab Oriente provenire, Canem vero ab Occidente ortum suum trahere", ". . . . Nevertheless the Philosophers let us know that each of them has one origin, namely that the Wolf originates from the East, but that the Dog comes from the West". In his *Symbola Aureae Mensae* (p. 272) Maier discusses the emblems of Lambsprinck, whereby he points to the identical meaning of the union of the two lions (*A.F.*, embl. xvi and frontispiece), the two eagles (embl. xlvi), and the dog and wolf.

In his *Arcana Arcanissima* (p. 38), Maier says that dog and wolf are two parts of one subject, by which the philosophical matter is indicated.

#### EMBLEM XLVIII<sup>1</sup>

(fig. 48)

#### MOTTO

When the king had drunk from the waters, he became ill,  
 After he had been treated by the physicians he regained his health.

#### EPIGRAM

The king of the spring, powerful on account of his wealth and  
 peoples, liked water,  
 Which was brought to him by his servants, at his order,  
 He drank and drank again and soon his veins were saturated  
 with it,  
 And he, gayly-coloured, was caught by famous physicians.  
 After they had purified him by letting him sweat, purge and vomit  
 Both his cheeks were soon coloured rose-red.

#### SUMMARY OF THE DISCOURSE

Xerxes, the most powerful king of the Persians, liked to drink the muddy water a soldier brought him, when he passed through dry

<sup>1</sup> Vide H. M. E. de Jong: "Michael Maier's Atalanta Fugiens; commentary on emblem XLVIII", *Janus*, 52 (1965), 2, p. 81-112.

desert regions with his army. He amply rewarded the soldier, who brought it to him. In these regions the water is very salt in all stagnant pools, and the soil itself also contains a great deal of salt.

In the same way the king, about whom the Philosophers state that he was thirsty, had fresh water brought to him, of which he drank till he was saturated, as is known to everybody from the *Merlini-allegory*.<sup>2</sup> The recovery of the sick king was taken in hand by several physicians. First came the Egyptian physicians, who expelled the coarse liquids, of which Hippocrates says that they should be digested first and then quickly removed, so that they do not penetrate into nobler parts and do damage there. Hereupon the king became unconscious, but then the Alexandrian physicians came, and they made the king healthy again. That was worth the trouble.

We read about many physicians, who got high rewards from the kings they had cured: like Democides, who got two talents from Polycrates, ruler of the Samians,<sup>3</sup> and Erasistratus,—about whom Pliny wrote that he had been a pupil of Chrysippus and was a son of the daughter of Aristotle—who obtained 100 talents from Ptolemy, because he had cured Antiochus, Ptolemy's father, when he was sick with love for his stepmother Stratonice,<sup>4</sup> and as Jacobus Cocterius, the personal physician of king Louis II of France, who received four thousand crowns.

But curing the king, about whom the Philosophers speak, is rewarded still more amply. Thus Hermes and Geber say in the *Rosarium*: "He who has completed this art would not be in want of anything, even if he were to live for thousands of years and even if he had to feed four thousand people daily".<sup>5</sup> And Senior confirms this with the words: "He who has the Stone from which the Elixir comes, is as rich as somebody who has fire: such a person can give fire to whom and when and as much as he wants without it decreasing".<sup>6</sup>

The father of Democritus was so rich that he offered the army

<sup>2</sup> *Merlini-Allegoria, Profundissimum Philosophici Lapidis Arcanum perfecte continens*, in: *Art. Aurif.*, I, 420-424.

<sup>3</sup> The remark about Democides is from: Herodotus, *Hist.*, III, 45.

<sup>4</sup> About Erasistratus, from: Pliny *Hist. Nat.*, XXVI, 6, 2 and XXIX, 3, 1.

<sup>5</sup> *Art. Aurif.*, II, 245.

<sup>6</sup> *Ditto Art. Aurif.*, II, 245.

of Xerxes a meal, and Pythius was so rich that he offered pay to the whole army and provisions for five months in exchange for exemption from military service for the youngest of his five sons, so that he could keep him at home as a comfort in his old age. But the barbarian king rejected the proposal of Pythius, had the youngest son to be cut into two pieces and had the two pieces attached onto poles on both sides of the road, where the whole army would pass.<sup>7</sup>

But the riches of those people pale into insignificance beside the treasures of the king of the emblem; these are without measure and number. When this king had become healthy again and had been freed from the waters, all kings and powerful persons received and feared him.

And when they wanted to see his wonders, they added an ounce of well-washed mercury to some particles of nail or hair or blood of the king, in the quantity of a grain of millet, kindled a light charcoal fire, let the vessel cool down and then they found the Stone.<sup>8</sup>

He is the one about whom Bernhardus Comes<sup>9</sup> says that he gives to six of his courtiers as much power as he has himself, if they only wait till he himself has regained his youth in the bath, and will be dressed with several clothes, namely a black cuirass, a white upper tunic and a purple-red cloak. Then he will give them of his blood and let them share his wealth.

#### SOURCE OF THE MOTTO

*Merlini-Allegoria, Profundissimum Philosophici Lapidis Arcanum perfecte continens*, in: *Art. Aurif.*, I, 420-424;

and Bernhardus Comes Trevisanus, *De Chymico Miraculo, quod Lapidem Philosophiae appellant*, quarta pars, in: *Theatr. Chem.*, I, 705-709.

#### COMMENTARY

As can be seen from the discourse, the King is a symbol for the

<sup>7</sup> About Pythius, from: Herodotus, *Hist.*, VII, chapters 38 and 39.

<sup>8</sup> Maier quoted this passage from the *Merlini-allegory*.

<sup>9</sup> Bernhardus Comes is Bernardus Trevisanus, see bibl.; Maier took the last paragraph of the discourse from Trevisanus' writing: *De Chymico Miraculo, quod Lapidem Philosophiae appellant*, quarta pars, in: *Theatr. Chem.*, I, 705-709.

Philosophers' Stone; the *Merlini-allegory* mentioned in the source of the motto, was Maier's source for picture and contents of emblem XLVIII; the picture shows two scenes: in the foreground stands a King with armed soldiers, in the background the King lies in bed, and near his bed stand two physicians.

The summary of the *Merlini-allegory* is as follows:

"A King wanted to go to war (picture of emblem XLVIII; this explains the presence of the armed men standing behind the King), but first he sent for water to drink (Emblem XLVIII, picture and epigram: "Rex . . . amavit, Portari a servis quas sibi poscit, aquas"). It is a special<sup>10</sup> kind of water that he requires. The King received it, drank it and drank it again, until all his limbs were filled with water, and his veins had become swollen, and he assumed a multicoloured appearance (Emblem XLVIII, epigram: "Has bibit et rebibit, venas mox inde repletus Discolor"). Now the King fell ill (Emblem XLVIII, motto: "Rex ab aquis potatis morbum. . ."), and wanted to be laid in a vaulted, warm place, to sweat at a constant temperature day and night, so that the water which he had drunk, could dry up. This was done, but when, after the requisite time, the vaulted space was opened, the King was found half dead. The relatives went for Egyptian and Alexandrian<sup>11</sup> physicians (Emblem XLVIII, picture: two physicians stand beside the bed). The physicians promise to cure the King. After some disagreement between the doctors, as to which of

<sup>10</sup> This water is peculiar, in that it is a sharp, solvent liquid, which serves to reduce to primary matter the material from which the Philosopher's Stone is to be made, before it can be given its perfect form; in this case, therefore, it is represented as Rex Chymicus.

The foregoing appears from a manuscript of the *Merlini Allegory* which is entitled: "*Reductio Mercurii in Primam Materiam*", and which begins as follows: "Ad reducendum azot ad sui materiam primam ita est procedendum. Capiatur aqua fortis dissolvens. . ." (Paris, Bibl. Nat., ms. lat. 14005, fol. 100r-v, 101, 14th-15th century). J. Bidez, F. Cumont, et al. *Catalogue des Manuscrits Alchimiques Latins*, ed. Union Académique Internationale, Brussels, 1939, No. 52 and passim.

<sup>11</sup> Egyptian and Alexandrian are connected with fire; there were no standards by which to judge different degrees of heat or the different degrees of humidity.

Paracelsus, *Chymischer Psalter*, 1522, ed. Berlin, 1791, No. 68: "Die feuchte und langsame Wärme des Feuers wirt Aegyptisch genannt". Moreover a quotation from Hermes in *Theatrum Chemicum*, IV, Strasbourg, 1659-1661, p. 726; "Lapis est senex propter albedinem, iuvenis propter rubedinem, Aegyptiacus propter humiditatem, Persicus propter siccitatem. Unde Aegyptii terræ Persarum egent subsidio, id est, humiditas Lapidis debet siccari. Ideo putrefactio non valet alibi quam in Aegypto, ipsius autem finis non nisi in Persia".

them is to start the healing, the Egyptian physicians finally begin, because they are the older.

They take the King, cut him into pieces,<sup>12</sup> mix them with moist medicine, and replace the King in the vaulted space<sup>13</sup> at a moderate temperature. When they take out the King again, he is almost dead. "Woe, the King is dead", say the relatives, but the doctors deny it. Now they wash the King entirely with fresh water and put him back with medicine. When they take out the King again, the relatives repeat: "Woe, the King is dead". The physicians affirm this. "But", they add, "We have killed him in such a way, that he will be better and stronger in this world after the resurrection, on judgment day, than he was before".

Then the relatives lose patience and chase the physicians away. When the relatives are about to bury the King, the Alexandrian physicians appear, saying: "Do not bury him, we shall make him handsomer and stronger than ever". The relatives are rather distrustful, however, and tell the physicians, that they will not come out of this alive, if they prove to be impostors.

But the Alexandrian physicians take the dead King, wash away all traces of the previous medicine and dry him. They then take one part sal ammoniac and two parts Alexandrian soda, and mix this with the remains of the dead King and place him in a vaulted space with a perforated bottom,<sup>14</sup> and put underneath another clean

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<sup>12</sup> They cut him to pieces and mix him with moist medicine; this is the putrefactio, the reduction to prime matter (see note 10). The same theme appears from emblem XLIV in a different form, with the motto: "Dolo Typhon Osyridem trucidat, artusque illius Hinc inde dissipat, sed hos collegit Isis incllyta". Typhon symbolizes the putrefactio (Maier, *Symbola Aureae Mensae*, p. 266). In *Arcana Arcanissima* p. 169, M. Maier puts the Eleusinian and Orphic mysteries on a level with the Egyptian mysteries, and with the *Merlini allegory* and the *allegory about king Duenech*:

"... Regem nostrum capiendum et in partes minutissimas dividendum, igne et aqua lavandum, rejectis fæcibus et superfluitatibus tum demum iterum componendum, et iuvenem fortiolemque, quam prius resurrectum esse. Idem habet Merlini allegoria, et alterius de Duenech principe, et huius modi aliæ".

<sup>13</sup> The text of the *Merlini allegory* has "camera", which, in the picture of the emblem, has become a four-poster with curtains.

<sup>14</sup> This served as an example for the picture of emblem XXVIII from the *Atalanta Fugiens*. This emblem has the motto: "The king is bathed, sitting in a steam-bath, and he is freed from the black bile by Pharut").

The relation between emblems XLVIII and XXVIII is evident not only from the fact that the picture of emblem XXVIII depends on the *Merlini allegory*, but also from the epigram, in which king Duenech is mentioned; in view of Maier's quotation in Note 12, the foregoing puts the emblem on a level with emblem XLVIII and with its meanings, and conversely the contents of the

vessel, after which they put him back again. Then they treat him with fire<sup>15</sup> until he has nearly melted and passes through the bottom holes into the lower vessel.

Thereupon the King rises again and calls in a loud voice: "Where are my enemies?" But all are glad to submit themselves to his authority.

Now when they wished to see something of his miracles, they added an ounce of well-washed mercury to some of the King's nail, or hair, or blood, equivalent in quantity to a grain of millet, fanned a light charcoal fire, allowed the vessel to cool down and obtained the Stone (Emblem XLVIII: this fragment is identical to par. 7 of the discourse). The process was repeated with the aid of this Stone: some of this Stone was projected onto purified Saturn (lead), which immediately changed its form. One part of this was added to ten parts of Venus (copper), after which it became one colour and one quality. And so forth; thus everything was transformed into the highest quality. Praised be to God, who inspires the faithful to put the forces into operation".

#### Allegoriæ Merlini Finis".

The motto of emblem XLVIII, therefore, is a summary of the *Merlini-allegory*, the picture shows part of this allegory, and the epigram is largely based on it; the passage in par. 2 of the discourse was borrowed from the *Merlini-allegory*, and par. 7, dealing with the transmuting power of the Stone, or with the transmuting power of the Rex Chymicus, was taken from it.

The *Merlini-allegory* did not bear the name *Merlini-allegory* from the beginning. In the *Merlini-allegory* in manuscript (see note 10), the name *Merlini* is lacking. The author of the allegory is unknown; the allegory may be of Arabic origin.<sup>16</sup> M. Maier attributes the allegory to an author by the name of Merlinus,<sup>17</sup> meaning Merlin

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epigram of the Duenech emblem elucidates an aspect of emblem XLVIII. (The *king Duenech allegory*, from which Maier borrowed motto and epigram of emblem XXVIII; see *Theatrum Chemicum*, III, Strasbourg, 1659-1661, pp. 756-757).

<sup>15</sup> It is to the king who is treated with fire (Note 12, "regem. . . igne et aqua lavandum, . . ."), that Maier devotes emblem XXIV, with the motto: The wolf devoured the king and after the wolf had been burnt, it returned the king to life.

<sup>16</sup> From G. B. Nazari, "*Della transmutazione metallica sogni tre*", III, Brescia, 1572, pp. 18, 140. "Merlini alias Mahumeti philosophi allegoria".

<sup>17</sup> M. Maier, *Symbola Aureae Mensae*, p. 559.

the Magician,<sup>18</sup> the legendary figure connected with the King Arthur Cycle.<sup>19</sup> I offer no opinion in the question whether the alchemists, and in particular Maier, have related not only Merlin the Magician, but also the origins of the Grail legends connected with him, to their *Merlini-allegory*.<sup>20</sup>

In the brief summary of the alchemical *Merlini-allegory*, two factors stand out most clearly: the water, the dissolving, on the one hand, and the drying, the heating, the reshaping, on the other hand. This makes the allegory an illustration of the recurrent alchemical motto: "Solve et coagula et habebis magisterium", "dissolve and coagulate" (in this connection see notes 10 and 11). This meaning of the *Merlini-allegory* is emphasized in various other emblems of the *Atalanta Fugiens*, with the mottos: "Let the work of the potter,

<sup>18</sup> M. Maier, *Symbola Aureae Mensae*, pp. 260-261; Maier mentions Merlinus in his discussion of Alanus ab Insulis (Doctor Universalis, 12th century, whom Maier places in the 15th century because he identifies him with the probably 15th century author of the *Dicta Alani Philosophi de lapide philosophico*, included in *Theatrum Chemicum III*, Strasbourg, 1659-1661, pp. 722-729). Maier mentions Alanus ab Insulis as a commentator of the Merlinus prophecies:

"... illa vaticinia... a monachis quibusdam... fabricata et sub nomine Merlini (= quem dicunt ex Incubo seu dæmone natum ante adventum Germanorum Saxonum in Britanniam) in vulgo sparsa".

<sup>19</sup> The figure of Merlinus became known in the Middle Ages through Geoffrey of Monmouth, who wrote a mythological *Historia Britonum* in 1136; it is chiefly based on Celtic sources and contains the best-known European stories, such as those of Parsifal and the *Holy Grail*. He also wrote a Latin version of the prophecies attributed to Merlin, who was supposed to be the son of a demon and a nun, and whom baptism prevented from becoming the Antichrist. Merlin's prophecies, incorporated as they were in the *Historia Britonum*, inspired the writers of the Grail legends anew. *Historia Britonum, Britanniae utriusque regum et principum origo et gesta insignia*, Paris, 1508 (editio princeps).

Literature in: G. Sarton, *Introduction to the History of Science*, II, Washington, 1931, p. 256.

A romance by Robert de Borron from the 12th century, in which the story of Merlin and Grail legends were blended, has made the figure of Merlin widely known.

<sup>20</sup> A few years before M. Maier started to publish his books at Oppenheim and Frankfurt, it was at the latter town (in 1608) that *Commentarius in prophetias Ambrosii Merlini* was published, under the name of Alanus ab Insulis, which may have induced Maier to write a commentary on Merlinus for his *Symbola Aureae Mensae* (note 18).



consisting of dry and wet, teach you" (embl. xv),<sup>21</sup> and "The ore of the philosophers is dropsical, and wants to be washed seven times in the river, just as Naaman, the leper, washed in the Jordan" (embl. XIII).

The *Merlini-allegory* symbolizes not only the chemical conversion process, but also the medical<sup>22</sup> conversion process, as can be seen from the set-up of the *Merlini-allegory* and from the motto of emblem XLVIII.

Summarizing, we may conclude that the following emblems are connected with the *Merlini-allegory*:

Emblem XLIV, Osiris, who is killed and rises again.

Emblem XXVIII, King Duenech, whom Pharut, the physician, frees from the black gall and cruelty.

Emblem XXIV, The King rising again from the fire.

Emblem xv, The potter's work, which consists of mixing dry and wet. The discourse treats the conversion of the four elements.

Emblem XIII, The dropsical ore, which must be washed. The discourse elucidates the medical treatment of dropsy.

For the art of healing, the alchemists rely on Galen and Hippocrates, whose views play a leading rôle in the Middle Ages and Renaissance.<sup>23</sup> In the 16th century the alchemists also quote Paracelsus, who introduced iatrochemistry, and who, for that matter, drew extensively on alchemical books himself. Maier's appreciation of Paracelsus is not undivided, but he praises him for the results,

<sup>21</sup> *Atalanta Fugiens*, emblem xv, motto: "Opus figuli, consistens in sicco et humido, te doceat"; so a branch of the theory of elements.

<sup>22</sup> Ramon Lully (who died in 1315), *Theorica*, included in: *Theatrum Chemicum* IV, Strasbourg, 1659-1661, pp. 117-118, on the transmutation of the elements:

"Per hanc doctrinam filii debes intelligere, quod in nostro magisterio naturali, non debent elementa definiri secundum quod sunt principium motus de loco in locum, sed secundum quod sunt initium alterationis. Hanc met viam insequuti sunt, et sequuntur medici".

<sup>23</sup> Even A. Vesalius (1515-1564), in spite of his renovating, revolutionary anatomy *De Humana corporis fabrica, Libri septem*, Basel, 1543, through which he dissociated himself from Galen, admired him greatly and draws on him in many respects. Also the Hippocratic tradition was still very much alive in the Renaissance; a large work, a kind of encyclopedia of Greek medicine, *Oeconomia Hippocratis*, was published at Frankfurt in 1588.

For bibliographies on Hippocrates and Galen in the years between 1450 and 1600 see G. Sarton, *The Appreciation of Ancient and Medieval Science during the Renaissance*, Philadelphia, 1955, pp. 7-11 and 17-33 resp.

which he obtained in his treatment of dropsy,<sup>24</sup> which was hitherto regarded as practically incurable. The motto of emblem XIII shows, how difficult the alchemical process was considered to be, since the ore to be cleansed is called "dropsical".<sup>25</sup>

On the basis of the Galenic views on the four elements, which, in the body, correspond to the four humours and the four temperaments, King Merlinus' humours must be purified and balanced.<sup>26</sup> As for the art of healing, the alchemists hold a twofold view: they wish to transform the body by means of the aurum potable direct, to cure the disease and to preserve health, but at the same time they regard the human body itself as a retort, in which the "Arcana Naturæ" manifest themselves.<sup>27</sup> The epigram of Maier's emblem XXVIII elucidates (as does the text of note 26), the medical process, which the King of the *Merlini-allegory* undergoes:

"King Duenech, shining with the weapons of the Green Lion,  
Swollen by bile, was horrible in his behaviour,  
Thereupon he sends for the physician Pharut,  
The latter promises him health and has a steam-bath prepared,  
Herein he bathes and bathes again, under the glass arch (the retort),  
Till, by the wet dew (rore madenti), he is freed from all bile".

The discourse of embl. XXVIII says the same in other words that the black gall, or the Saturnian melancholy, and the Martial rage

<sup>24</sup> M. Maier, *Symbola Aureae Mensae*, p. 286, concedes to Paracelsus' opponents that the latter plagiarizes and uses empty words, but yet: "Tamen in medicina morbos aliis incurabiles, nempe cancrum, lepram, hydropem, etc. . . . fœlicissime curavit . . . at nullus eius discipulorum hoc curandi fastigium attigit".

In Pauly-Wissowa, *Real-Encyclopädie der Classischen Altertumswissenschaft* VI, I, Stuttgart, 1907, s.v. Erasistratus, col. 335, the author quotes from Galen IV, p. 495, that already Erasistratus had prescribed a sweating bath against dropsy.

<sup>25</sup> *Artis Auriferae* II, *Rosarium Philosophorum*, pp. 415-417. "Geber dicit . . . lapis . . . curat omnia metalla infecta ab omni infirmitate, sic et humana corpora".

<sup>26</sup> *Artis Auriferae* II, *Rosarium Philosophorum*, pp. 415-417. "Arnaldus (de Villanova) dicit: lapis . . . non permittit sanguinem putrefieri, nec flegma superdominari, nec choleram aduri, nec melancholiam superexaltari . . . Et breviter omnes malos expellit humores, bonosque inducit".

<sup>27</sup> M. Maier, *Symbola Aureae Mensae*, p. 40. "Physica complectitur Chemiam, quæ cum medicina laudanda est quia naturalium rerum arcana docet".

C. G. Kühn, *Claudii Galeni Opera Omnia* II, Leipzig, 1821-1833, p. 291, in connection with anatomy, speaks about the philosopher of medicine, who wishes to obtain knowledge regarding all nature.

(indeed the King of the *Merlini-allegory* wanted to go to war) should be converted into healthy red blood;<sup>28</sup> this is the medical background of the last line from the epigram of emblem XLVIII, "mox tincta est utraque mala rosis", this line having at the same time a chemical significance.<sup>29</sup>

Further perusal of the historical quotations from Herodotus and Pliny which occur in Maier's discourse of emblem XLVIII reveals, that he has chosen such texts as refer to an alchemical motif or catchword.

By way of example I would like to draw attention to the quotations about Democides and Erasistratus (discourse par. 3). Maier mentions Polycrates' reward to Democides, which is to be found in Herodotus, *Hist.* III, 125. Herodotus then continues as follows: "After Polycrates' death (552 b. Chr.), Democides goes to the Persian court, at Susa, and there cures Darius of a foot injury, which had previously been treated by Egyptian physicians without success" (Herodotus, *Hist.* III, 129). This is the theme of the alchemical contrast "Aegyptiacus—Persicus": "The Stone is Egyptian on account of the moisture (analogous to the Egyptian physicians of the *Merlini-allegory*), Persian because of the dryness (analogous to the Alexandrian physicians of the *Merlini-allegory* and to par. 1 of the discourse), during which Xerxes, the Persian, traversed arid regions. Consequently, the putrefactio (the decomposition necessary before a reconstruction can take place), is effective in Egypt only (with moist, slow fire), but the completion only in Persia (with dry, hot fire), as in emblem XXIV; (see particularly note 11 and the relevant text).

The second theme of par. 3, about Erasistratus (see note 4) concerns the story of Antiochus and Stratonice. Erasistratus was called to the sickbed of Antiochus, and certified that the latter's suffering

<sup>28</sup> M. Maier, *Symbola Aureae Mensae*, p. 474, "humanus sanguis aestimatus materia lapidis".

<sup>29</sup> Martinus Rulandus, *Lexicon Alchemiae sive Dictionarium Alchemisticum*, Frankfurt, 1612, "Tingere = dyeing, and this means changing one's nature". It ultimately goes back to the oldest recipes for making gold, in which imparting a golden lustre to a substance was equivalent to making true gold.

As, according to his *Lexicon*, Rulandus was personal physician to the emperor, it is not impossible that Maier has known him personally.

*Artis Auriferae* II, p. 416, "Geber quoque dicit, quod Elixir rebeum curat omnes infirmitates chronicas, de quibus medici desperaverunt".

was caused by his love for his stepmother; Antiochus regained his health when his father, Seleucis I, who had married Stratonice in 301 B.C., followed Erasistratus' advice to give up his wife to his son.

The alchemical starting point, that all manifestations are differentiations of one primary substance, includes the idea, that all things which are united, are related; this is the background of the references to incest in alchemical literature, a theme, which occurs in many variations. This shows, that the Erasistratus passage of par. 3 was not chosen at random by Maier, but because he saw in history an analogy to the alchemical conceptions of incest.

The classical brother-sister incest, considered cosmogonically, was from time immemorial the example for the *Opus Alchemisticum*. In the *Atalanta Fugiens* this motif is found in the mottos or epigrams of the following emblems:

Emblem IV: "Join brother and sister, and hand them the cup with the love potion".

Emblem XXXIX: "Oedipus, having conquered the Sphinx and having killed his father Laius, married his mother".

Emblem XLI, first line of the epigram: "From her own father, Myrrha received the beautiful Adonis". (Adonis symbolizes a stage of the *Lapis Philosophorum*).

Emblem XLIV: "Typhon kills Osiris by a ruse, and after that he scatters his limbs far and wide, but the famous Isis collects them". And the third line of the epigram reads: "Isis is the sister, wife and mother of Osiris".

This last-named emblem, which is mentioned by Maier in close connection with the *Merlini-allegory*, therefore turns out to be a link for several other emblems of the *Atalanta Fugiens*. The epigram of emblem XLIV begins as follows: "Syria has Adonis, Greece has Dionysus, Egypt has Osiris, who is nobody else but the Sun of Wisdom", referring to the cosmogonical meaning of the *Merlini-allegory*.

In the epigram of emblem XLVIII the King is called "Rex fontis", which draws attention to par. 8 of the discourse, in which Maier quotes from the *Allegory of Bernard of Treves*, and of which allegory Maier gives the conclusion (discourse par. 8).

Bernard of Treves relates this allegory in the form of a personal experience, here reproduced in shortened form:

"He arrives at a spring that is closed in on all sides. An old man stands by the spring, and replies to Bernard's question, why the spring is closed: "the spring is exclusively intended for the King to bathe". When the King bathes, a servant warms up the spring water, and the King remains concealed in the spring all the time. To Bernard's question, what the King's colour is, the old man replies: "He wears a golden garment, a black cuirass, a white garment and his blood is a fiery red". And in reply to the question, what the King's age is, the old man says: "HE IS OLDER THAN THE SPRING ITSELF". Continuing the discussion, Bernard learns, that the bathing enables the King to give his six courtiers as much power as he possesses himself. When the King arrives at the spring, he gives his golden garment to Saturn,<sup>30</sup> who keeps it for forty days. Then he takes off his black cuirass and gives it to Jupiter, who keeps it for twenty days, and who, by order of the King, gives it to Luna, who keeps it for twenty days. Then the King appears in his snow-white garment, takes it off and gives it to Mars, who keeps it for forty days, and who, by order of the King, afterwards gives it to the yellow veiled sun, who keeps it for forty days. Then the blood-red sun appears and takes it. Now the spring opens and the King gives them his red blood to drink, just as he has given them his clothes, whereupon their wishes are fulfilled.

After Bernard has heard all this, he asks: "Do many see this?" Then comes the reply: "It is enacted before the eyes of mortals, but no one has known it".

This allegory includes the factors necessary for the transmutation of metals: Saturn is lead, which is changed into Sol, i.e. into gold, and the King gives his blood, the *tinctura rubea*, which possesses great converting power.

The discourse (par. 6) says, that the King in question, i.e. the Merlini-King, who is also the King of the spring (from the epigram), is he whose riches are without measure and number, and so he is analogous to God, who, as St. Augustine wrote: "created everything in measure, number and weight, in himself, he who is the number-

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<sup>30</sup> In this connection the sequence of the planets is related to the theory of the "magnus annus", the division of world history in gold, silver and other periods, which will recur after centuries on the reappearance of the same planetary position. The discourse of emblem xxviii also refers to this motif.

As for the number forty: the forty days of the Deluge, Elijah's forty-day stay in the desert; and the forty days that elapsed between Christ's resurrection and ascension.

less number, the measureless measure, the weightless weight".<sup>31</sup> The Rex fontis of the epigram is older than the spring, as we see from *Bernard of Treves' allegory* and the spring becomes the Fons Vitæ. The analogy of the Rex Chymicus to the Rex Coelestis at the same time relates the Christian analogies to the Opus Alchemisticum and further elucidates the alchemical allegories. The colours of the alchemical process, the black of the putrefactio, the white of the purification, and the red of the tinctura rubea, become analogous to the sin, baptism and bliss of the individual, and to the redemption by Christ. The Merlini-King, "tincta utraque mala rosis" (epigram, last line; see notes 28 and 29), who consequently becomes "tinctura rubea" himself, gives his blood as just the King in *Bernard of Treves' allegory* and Christ sacrificed their blood.

The alchemical water, in which the King of the *Merlini-allegory* dissolved, and from which he rose again, and the spring, in which the King of the *Bernard of Treves' allegory* took a bath, has many names, such as "Aqua Mercurialis", "Aqua Pontica" etc., and is polyvalent in meaning.

It is the water of death, in which the Merlini-King dissolves and dies, analogous to *Psalm 69*:<sup>32</sup> "Save me, O God; for the waters are come in unto my soul. I sink in deep mire, where there is no standing: I am come into deep waters, where the floods overflow me. I am weary of my crying".

Emblem xxxi is, as it were, an illustration to *Psalm 69*. This emblem shows the King swimming in the sea and crying for help in a loud voice, promising a huge reward to him, who rescues him from the waters, just as the Merlini-King promised. Saved from the water and dried, the King appears in his true, forceful form, emerging from the mixture of wet and dry, as also the potter creates

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<sup>31</sup> *Sapientia*, XI, 21, "Omnia fecit Deus in pondere mensura et numero". St. Augustine, Migne *P.L.*, XXX, IV, col. 299, "Creavit omnia in pondere . . . id est in se ipso, qui est numerus sine numero, mensura sine mensura, pondus sine pondere . . . Vel aliter: His tribus, numero mensura pondere voluit ostendere scriptura nil Deo esse Aequale, numerus enim simplicitatem, mensura immensitatem, pondus felicitatem excludit".

<sup>32</sup> *Psalm 69*, 2-4, "Salvum me fac Deus; quoniam intraverunt aquæ usque ad animam meam. Infixus sum limo profundi et non est substantia. Veni in altitudinem maris et tempestas dimersit me. Laboravi clamans rauca factæ sunt fauces meæ . . ."

from wet and dry (emblem xv), and just as God shapes his creation "et siccam manus eius plasmaverunt".<sup>33</sup>

The water is also beneficial, it is the salutary fountain of *Bernard of Treves' allegory*, it is the Fons Vitæ, it is the water of which the Psalmist says: "I stretch forth my hands unto thee: my soul thirsteth after thee, as a thirsty land".<sup>34</sup>

The water is also beneficial medically; the melancholic King Due-nech (emblem xxviii) is treated in the steam-bath, until he is cured "rore madens", wet with sweat or dew. Speaking of mental diseases Hugo of St. Victor says, that the melancholics, whose heart is arid as a result of the evil fluids, must be cured by means of the heavenly dew of the Holy Ghost (Rore Coelesti).<sup>35</sup> In conformity with this tradition to consider diseases as related to the four temperaments and the signs of the zodiac, Arnold of Villanova calls the healing art "the gateway to Paradise"; for by curing the body the moods are changed, so that one is more inclined to do good. "Moreover", Arnold of Villanova adds, "the alchemists have depicted very beautiful things with the "passiones animæ", for what medicine has a more warming effect than anger"<sup>36</sup> (analogous to emblem xxviii, epigram: "rigidis moribus usus erat", under influence of Mars).

The purifying action of water is beneficial, because it removes the blackness of the metal, cleanses the ore and the sick person of dropsy and obliterates sins. The combination of these appears in emblem xiii: the analogy with the story of Naaman,<sup>37</sup> which prefigures the ceremony of baptism, "The seven cleansings of Elisha

<sup>33</sup> *Psalm 95, 5*, "Cuius est mare: ipse enim fecit illud; et siccam manus eius plasmaverunt". One of the meanings of το πλάσμα is "the trade of the potter".

<sup>34</sup> *Psalm 143, 6*, "Expandi manus meas ad te, anima mea sicut terra sine aqua tibi".

<sup>35</sup> Hugo of St. Victor, *Opera Omnia*, Migne, *P.L.*, vol. CLXXVI, col. 1185-1202, *Re Medicina Animæ* (on attributing "*De Medicina Animæ*" to Hugo de Folieto or to Hugo of St. Victor, see Migne, *P.L.*, CLXXV, Prolegomena, CXIII and CXIV) caput VI, "De cholera nigra, atra bili, et melancholicis", col. 1190, "Unde et Psalmista: Et siccam formaverunt manus eius" (*Psalm 95, 5*). "Siccam vocat cordis nostri terram a malis humoribus desiccata. Sed et aliter siccum intelligi potest, quando mentis ariditas cælesti, id est Sancti Spiritus rore caret".

<sup>36</sup> M. Maier, *Symbola Aureae Mensae* pp. 564-566, quotation from Arnold of Villanova, physician and alchemist, (who died in 1314) on the diseases of the soul.

<sup>37</sup> II, *Kings V, 1-19*.

symbolize the seven spirits which are cast out through baptism".<sup>38</sup> The ore must be purified seven times; it must pass through the seven phases of Mercury, Saturn, Mars, Venus, Jupiter, Luna and Sol to become perfect.

The alchemical allegories, which include the correlations of the *Opus Alchemisticum*, the cosmic transformation process, and Christ's Redemption of the world, have had a decisive influence on the great allegory of the Rosicrucians: "*Die Chymische Hochzeit*" by Christian Rosencreutz, which says that he may not attend the wedding until he has assisted in many transmutations, analogous to those from the alchemical allegories.

Finally, the analogy between the Rex Chymicus and the Rex Coelestis stands out the most clearly in an illustration from the *Rosarium Philosophorum*, which represents the consummation in the shape of the resurgent Christ (fig. 72), and Maier's "*Cibinentic Mass*",<sup>39</sup> (fig. 68) with the motto: "Lapis, ut infans lacte nutriendus est virginali"; "Just as the child, the Stone should be fed with milk of a virgin". Maier took this theme from the tract,<sup>40</sup> by an unknown Melchior Cibinensis. I shall only quote a few sentences by way of illustration:

"Introitus Missae, sub tono, gaudeamus, et erit cantandus",<sup>41</sup>  
 "Descendit sicut pluvia in vellus,<sup>42</sup> et sicut Stillicidia,<sup>43</sup>  
 stillantia super terram. Alleluja".

Like dew he descends in the fleece of Gideon (the prefiguration of Mary's Immaculate Conception), like the condensing vapours in the retort, which are precipitated to the bottom, "stillantia super

<sup>38</sup> Ephraem Syrus, *Hymni et Sermones* I, ed. Th. Lamy, Mechlin, 1902, 6.

<sup>39</sup> M. Maier, *Symbola Aureae Mensae*, p. 509 etc., "Melchior Cibinensis . . . vir Religiosus et Sacerdotali ordini initiatus, ut verus artifex arcana huius scientiæ abditissimæ sub forma sacra, nempe Missæ, comprehendit et adumbravit". See fig. 68 and 72.

<sup>40</sup> *Theatrum Chemicum* III, Strasbourg, 1659-1661, pp. 758-761. *Processum Missae*. This tract and three others are collected under the title: *Processus Chemicus*. One is the *allegory of king Duenech*.

<sup>41</sup> "Cantandus" refers to the music, which Maier adds to his emblems in the *Atalanta Fugiens*, a theme which I have passed over in silence.

<sup>42</sup> This is analogous to emblem XLIX of the *Atalanta Fugiens*, on the vellus aureum and at the same time referring to Gideon's fleece.

<sup>43</sup> Represented in emblem IX of the *Atalanta Fugiens*, "Arborem cum sene conclude in rorida domo" (see H. M. E. de Jong, *Album Discipulorum Prof. Dr. J. G. van Gelder*, Utrecht, 1963, p. 89, Figs. 5 and 6).



terram", the dew of God's Holy Ghost, which drenches the withered hearts.

"O, fons sublimis ex quo vere scaturit vera aqua vitae, in praemium tuorum fidelium. Alleluja."<sup>44</sup>

The foregoing confirms the correctness of Maier's pronouncement on the nature of an alchemical allegory:

"TUM TOTA ALLEGORIA EST TAM MORALIS, QUAM CHYMICA".<sup>45</sup>

### EMBLEM XLIX

(fig. 49)

#### MOTTO

The Philosophical Child acknowledges three fathers, just as Orion.

#### EPIGRAM

According to the legend Phoebus, Vulcan and Hermes gathered their sperm in an ox-hide;

And all three equally became the father of the great Orion.

Truly, it is said, the child of Wisdom proceeded likewise from three fathers:

For Sol is its first father, Vulcan its second, as is said,

And its third father excels in art.

#### SUMMARY OF THE DISCOURSE

Women who give themselves to various men rarely conceive a living child, and that is on account of the different sperms being mixed; for Nature does not tolerate abundance in the procreation of most of the animals and of man, except in some cases. Thus, sometimes more than one child may spring from one pair of parents, as we learn from the story of the countess Margaretha, the wife of Count Herman of Henneberg; in 1276 this woman produced three-hundred and sixty-five children at one go, and all the boys among them were christened John and all the girls Elizabeth, and after their death they were buried in the church of Loosduinen, which is a mile from The Hague near the sea in Holland. Near the grave is

<sup>44</sup> The same as *Bernard of Treves'-allegory*.

<sup>45</sup> M. Maier, *Symbola Aureae Mensae*, p. 156.

an inscription, on which the cause of this large number of children is mentioned. The countess had once seen a poor woman with two children in her arms and had called the woman an adulteress, because, in her opinion, it was impossible to produce two children, when one becomes pregnant by one man only and that therefore that woman must have been impregnated by two men. The poor woman, who knew she was innocent of adultery, cursed the countess with the words that she would get as many children as there were days in a year, and that this would happen in one conception from one man. This may be called a miracle, but the event is founded in Nature, because this takes its origin from divine vengeance.

In the Philosophical work what is against nature becomes easily admissible in an allegorical shape. It is said herein that the fruit of the Philosophers has two or three fathers. That is why Raymundus says in the *Rosarium*: "The child has two fathers and two mothers, and because it has been amply fed on fire from the whole substance, it never dies" (the two fathers are the two elements with active force and by this, fire and air are understood; the two mothers are the passive elements, water and earth). Thus it is said that Dionysus or Bacchus has two mothers, and that he was moved from the burnt body of his mother to the thigh of his father in an abortive state, in consequence of which the father became the mother. But this process becomes still clearer from the conception of Orion, who, according to the legend, takes his origin from the combined sperm of Apollo, Vulcan and Mercury, gathered in an ox-hide. This would be horrible, if there were no secret of Nature at the root of it.

In his *Testamentum*, in the part about the theory, Lullius ascribed this same number of fathers to the Philosophical Child, namely Sol, who is identical with Apollo or the Heavenly Sun, as the first cause of this birth; with unspeakable force in a secret way Sol affects a certain matter, which is only known to the Philosophers, and does so in a manner as if that matter were in the womb of a woman. In this matter Sol generates a Son, equal to himself, to whom he later passes his weapons, the signs of his power and his paternal rights; that is, the power of ripening unripe things and of colouring and purifying non-coloured and non-purified things. However, what the Sun achieves in the course of thousands of years, the Son does in half an hour. In order to achieve that the power of the Son becomes

a thousandfold of that of his Father, Sol hands him over to Vulcan and to the artist at the same time, that they may perfect him and multiply his forces, for it is an established fact that it is of great importance to habituate and harden a person from his youth on. Thus Achilles and Jason were given to Chiron with the same intention. What habituation can do, is shown by the example of Milo, the Cretan, who could bear a calf when a child, but could bear a cow when a man, by habituation. So it is certainly right that after Sol also Vulcan and the artist are mentioned as the father of the Child of the Philosophers.

Children have to be grateful to their parents for being born, and to their teachers for the formation of their soul and mind and as this is more important than the formation of the body, they have to be at least as grateful to their teachers as to their parents. When Orion comes into existence Mercury procures the matter, Apollo procures the form and Vulcan the warmth or the external, effective cause. The same as in the origin of Orion takes place in the Philosophical work; three fathers collaborate in the creation of one descendant, in whom happiness for the Philosophers is contained.

#### SOURCE OF THE MOTTO

No direct source found.

This emblem is composed of motifs taken partly from an alchemical, partly from a classical source; Maier alludes to the classical source by mentioning the birth of Orion (Pauly-Wissowa, xxxv, 18, 1, col. 1066). At the root of this, is the story of the poor farmer Hyrieus, who gave hospitality to Zeus, Poseidon and Hermes, without knowing beforehand who they were. When they had made themselves known and Hyrieus was allowed to wish something, he said he wanted to have a son, knowing that such a wish could not be fulfilled, as he wanted to stay faithful to his deceased wife. Zeus, Poseidon and Hermes fulfil the wish in the manner described by Maier (Ovid, *Fasti*, 495 sqq).

Ovid, *Fasti* 530:

"Nec conjux, et pater esse volo. Annuerant omnes; omnes ad terga juvenci constituerant: pudor est ulteriora loqui. Tum super injecta texere madentia terra. Iamque decem menses: et puer ortus erat.

Hunc Hyrieus, quia sic genitus, vocat Uriona. Perdidit antiquum littera prima sonum".

The threefold fatherhood of the "Philosophical Child" or the "Philosophers' Stone" is also based on Raymundus Lullius *Theorica Testamenti* as we can see from Maier's quotation in *Symbola Aureae Mensae* p. 372. ". . . . Tripater, cuius Lullius meminit in Theorica testamenti nempe Solis Coelestis, Artificis ingeniosi et Vulcani filius, a sole creatus, ab artifice gubernatus et a Vulcano educatus".

### COMMENTARY

Maier uses the legend about Orion's birth in order to depict the threefold origin of the Philosophers' Stone.

As can be seen from the *Arcana Arcanissima*, this father is Hermes Trismegistus and the mother of the Stone is threefold:

". . . . I saw three faces in one father; thus Rosarius says that the matter of the Philosophers' Stone consists of fluid, and that the liquid of those three is understood by this, as Hortulanus shows; and there should not be more nor less. And he says that in these three Sol is the man, Luna the Woman and Mercury the sperm".<sup>1</sup>

So, Sol, Luna and Mercury are the three main components of the Stone. In the discourse, Maier quotes two pronouncements of Lullius, in which the latter speaks of "two fathers and two mothers", which refers to the four elements as origin of the Stone, and further about "three fathers", by which the force of Sol, of Vulcan as fire-power and the "artifex", and the artist, is understood. The threefold origin of the Stone is pictured by Maier in his *Symbola Aureae Mensae*; Hermes Trismegistus points to the process of Sol, Luna and Ignis (*fig. 77*).

In the representation of embl. XLIX, an ox-hide is to be seen, conforming to Ovid's text. But at the same time the sheepskin, the Golden Fleece of Jason, is thought of. Maier also has thought of two things: the threefold fatherhood of the Philosophers' Stone or of the Philosophical Child and the legend of Jason and the Golden Fleece, as an allegory of the alchemical Opus. For in the discourse

<sup>1</sup> M. Maier, *Arcana Arcanissima*, 140: ". . . Tres vidi facies in uno patre; sic Rosarius: Materia inquit, Lapidis Philosophorum est aqua et intelligitur de aqua illorum trium, ut probat Hortulanus; nec debent esse plura nec pauciora; Et dicit, quod Sol est masculus, Luna foemina et Mercurius sperma".

Maier says that Sol hands the Philosophical Child to Vulcan and to the artist, in order to perfect it, and that Achilles and Jason were given to Chiron with the same intention. Further, we know from the discourse of embl. XLIV that Jason was considered to be a master in the art of Chemistry, as he knew how to secure the Golden Fleece. For many centuries, the legend about Jason and the Argonautic Expedition to Colchis were explained in an alchemical way.

First of all Maier's own words about this from *Symbola Aureae Mensae*:<sup>2</sup>

"Ammianus 1.22 tells of the inhabitants of Colchis, that they are the former descendants of the Egyptians, Diodorus labels them as Egyptian colonists living near the Black Sea, in view of the metal mines; the reason why that golden allegory about the Golden Fleece is ascribed to the inhabitants of Colchis is that that region is rich in metals and those minerals which are of importance to the art of Chemistry. The son of the Sun exposed the sheepskin, gilded by Mercury, in the sacred wood of Mars before the eyes of several masters; finally Jason, that is to say the physician with subtle stratagem, acquired it, thanks to Medea's advice, that is to say thanks to the advice of Ratio and Theoretica.

In *Arcana Arcanissima* Maier treats the Jason-legend in more detail and connects every motif, occurring in it with an alchemical datum.

For the alchemical interpretation of mythological data Maier could get his inspiration from the work of Giovanni Pico della Mirandola (deceased 1533, a nephew of the great Pico della Mirandola). He is the author of *Opus Aureum de Auro*,<sup>3</sup> in which he very strongly stresses the connection between mythology and alchemy; in this way, also the alchemical interpretation of the Golden Fleece legend is discussed.<sup>4</sup>

<sup>2</sup> M. Maier, *Symbola Aureae Mensae*, 35: "De Colchis Ammianus 1.22 narrat, quod sint antiqua Aegyptiorum soboles, Diodorus eos Aegyptiorum Colonias vocat, qui in Ponto habitant, fodinas metallorum secuti; Hinc aurea illa allegoria de aureo vellere Colchis ascripta est eam ob causam, quod illa regio metallis et illis mineris abundavit, quæ ad Chemiæ artem requiruntur: Solis filius in luco Martis pellem ovillam a Mercurio deauratam exposuit variis artificibus, quam tandem Iason, id est, medicus subtili strategemate, ex Medeæ, hoc est, Rationis Theoreticæ consilio, obtinuit. . . ."

<sup>3</sup> printed in: *Theatr. Chem.*, II, 312-377.

<sup>4</sup> in: *Theatr. Chem.*, II, 324 and 357, lib. III, cap. I.

Another witness is Robertus Vallensis, who says in his treatise *De Veritate et Antiquitate Artis Chemicæ*:

"The Golden Fleece was a book written on hides, and it discussed the manner in which gold could be made in a Chemical way".<sup>5</sup>

This statement is based on Suidas, *Lexicon*, in which *sub voce* Δέρρας the following elucidation occurs:

"It is the Golden Fleece, which Jason took after he had come with the Argonauts to Colchis via the Black Sea, and after he had also brought with him Medea, the daughter of King Aetes. However, this was not a hide, as the legend hands down, but a book, written on hides, teaching how gold could be made in a chemical, artificial manner; that is why the former books have quite rightly called this writing the golden fleece, on account of the art it contained".<sup>6</sup>

The tradition of connecting the story of Jason with alchemy and of seeing the Golden Fleece as an alchemical document is old, as can be seen from Suidas' commentary, but in that tradition it is also particularly persistent; the latter is clear from the fact that in the sixteenth and seventeenth centuries many writings or collections of writings came into existence, which bear "Aureum Vellus" in their title.<sup>7</sup>

Although embl. XLIX deals with the conception of Orion, the thought of the Argonauts legend is running through it, in view of the central place of the Fleece in the picture and in view of the casual allusion to Jason in the discourse.

<sup>5</sup> printed in: *Theatr. Chem.*, I, 19: "Vellus Aureum, liber erat in velleribus conscriptus, continens quomodo per Chemiam fieri debeat aurum".

<sup>6</sup> Suidae, *Lexicon*, ed. A. Adler, II, Leipzig 1931, 24, 21 (δ 250): Δέρρας τὸ χρύσομαλλον δέρρας, ὅπερ ὁ Ἰάσων διὰ τῆς Ποντικῆς θαλάσσης σὺν τοῖς Ἀργοναύταις εἰς τὴν Κολχίδα παραγενόμενοι ἔλαβον, καὶ τὴν Μήδειαν τὴν Αἰήτου τοῦ βασιλέως θυγατέρα. Τοῦτο δὲ ἦν οὐχ ὡς Ποιητικῶς φέρεται, ἀλλὰ βιβλίον ἦν ἐν δέρμασιν γεγραμμένον περιέχον ὅπως δεῖ γίνεσθαι διὰ χημείας χρυσόν. Εἰκότως οὖν οἱ τότε χρυσοῦν ὠνόμαζον αὐτὸ δέρρας, διὰ τὴν ἐνέργειαν τὴν ἐξ αὐτοῦ (= Johannes Antiochinus fr. 15, 3; C. Müller, *Fragmenta Historicorum Graecorum*, IV 548).

<sup>7</sup> See H. Kopp, *Die Alchemie in Aelterer und Neuerer Zeit*, Heidelberg 1886, vol. I, Anmerkung III, p. 242-244, in which a number of works are mentioned under the title of Aureum Vellus.

*EMBLEM L*

(fig. 50)

## MOTTO

The Dragon kills the woman, and she kills it, and together they bathe in the blood.

## EPIGRAM

Have a deep grave dug for the poisonous Dragon,  
 With which the woman should be tightly intertwined:  
 While it rejoices in the marriage-bed, she dies,  
 And have the Dragon buried together with her.  
 In doing so its body is abandoned to death and is imbued with  
 blood:  
 Now this is the true path of your art.

## SUMMARY OF THE DISCOURSE

The Dragon houses in caves under the earth, man, on the other hand, in the adjacent air above the earth; they are two opposite elements, which have to be united according to the Philosophers, so that one affects the other. By the wife, some, for instance Basil Valentine, understand the following: "It is not useful that the eagles build their nests high up in the Alps, for their young would die of cold in the snow on the tops of the mountains. But if you add to the eagle the cold dragon, which has its residence in the rocks, and crawls out of the caves, and if you put them both in a hellish seat, Pluto will rouse a wind, and lure out of the cold dragon a volatile fiery spirit, which will scorch the eagle's feathers by its heat, and he will cause a steam-bath, which acts so powerfully that the snow on top of the mountains will melt and will become water, in consequence of which the mineral bath is well-prepared and provides happiness and health for the king".<sup>1</sup>

It is really remarkable that a cold dragon emanates a fiery spirit; but that it is based on truth can be seen from the experience with the burning snakes; for they give a poisonous flame by which the bystanders are killed. Not without reason did dragons become the

<sup>1</sup> Basilius Valentinus, *Practica Cum Duodecim Clavibus etc.*, key 2, in: *Mus. Herm.*, 396-398.

treasurers, the fire-spitting treasurers of the chemical treasures, like the dragons that watch over the Golden Fleece, or the Garden of the Hesperides, etc. The dragon, however, lives in subterranean clefts, and there it has to be seized and be united to the eagle or the woman, with the woman in the grave or with the eagle in the nest. For otherwise the Dragon aims at the eggs of the eagle and then wages war to the death.

But also a story is known from Greek authors, that a dragon once loved a young girl. Therefore, it is not to be wondered that the Philosophers want their dragon to be locked up in a grotto with a woman. Greverus joins black and red dragons in a grotto at the bottom of the mountain and burns them with fire, and when the black dragons have perished, he orders the keeper of the mountain to collect them from everywhere and to throw them into the mountain. In his vision Merlinus also mentions—unless it is only a supposition—a white and a red dragon. Now these dragons, whoever they are, if only one is a woman or a female dragon, affect each other, till they die, and the blood flows from their wounds, in which they bathe (the opposite elements act upon each other, till they are decomposed into the primary matter). By the dragon, the elements earth and fire are to be understood, and by the woman, the elements air and water. In connection with this, the author of *Clangor Buccinae* says that the dragon is the matter which is left on the bottom, after the water has been distilled from it.<sup>2</sup> And from Hermes he quotes: "The water of the sky which is found between heaven and earth is the life of everything; for that water dissolves the body into spirit and revives from the dead and unites man and woman with each other". Likewise he says about the earth: "You should know that the earth, well-known to you, which you step on with your feet, is not the true element, but originates only from its real fifth element. The fifth elementary substance does not leave its elementary-shaped body, from which the earth is formed."<sup>3</sup> And a little further on: "But in the centre of the earth is a virgin; she is the true element, which is resistant to fire. This is the dragon about which we speak, going into the centre of the earth, where, on account of the enormous heat

<sup>2</sup> *Clangor Buccinae*, in: *Art. Aurif.*, I, 530.

<sup>3</sup> *Ditto* as note 2, p. 492.



there, it takes in a fiery glow, with which it burns the woman or the eagle”.

The woman, however, or the eagle, is volatile water which is called the white eagle or the heavenly eagle by some, and which can be obtained, as is said, from common mercury or from sublimated salts. But those who follow these instructions listen to the advice of blind men, who consider themselves to be smart. “But verily I tell you”, Bernardus says, “that there is no liquid, which can dissolve a metallic substance by natural distillation, except the liquid which remains in it, in matter and form, and which has also the power to congeal the dissolved metals”.<sup>4</sup> And a little further on: “The fluid which does not belong to the substances when they remain in a dissolved state, do not belong to them when they are in a congealed state, either”.<sup>5</sup> And a little further on: “Verily I say to you: the oil, which the natures naturally makes into wax, and which combines them in a natural manner, forming a medicine which colours the other bodies, that oil is not prepared from a foreign substance, but exclusively from the inner self of the body to be dissolved”.<sup>6</sup> If one understands this, one also understands the eagle, the woman and the dragon in their true meaning, and all secrets of the whole art, which I have revealed, perhaps too openly, to the sons of the doctrine; and we have revealed this, in order that God be honoured on account of this.

#### SOURCE OF THE MOTTO

*Turba Philosophorum*, in: *Art. Aurif.*, I, 58, Theophilus ait: “Dico etiam vobis, quod Draco ille nunquam moritur: tamen illam mulierem suos interficiens coniuges, philosophi neci dederunt. Illius enim mulieris venter plenus est veneno. Fodiatur igitur sepulchrum Draconi, illicque sepeliatur mulier cum eo: qui illi mulieri fortiter iunctus, quanto magis eam nectit, et volvitur circa eam, tanto magis corpus eius in mulieris artibus mixtum ad mortem declinat, et totus vertitur in sanguinem. Quod cum vident philosophi in sanguinem

<sup>4</sup> Bernhardus Trevisanus, *Responsio ad Thomam de Bononia de Mineralibus, et Elixivis compositione, Roberti Vallensis Tabulis illustrata*, in: *Art. Aurif.*, II, 64.

<sup>5</sup> *Ditto*, 65.

<sup>6</sup> *Ditto*, 97-98.

versum, ponunt eum ad Solem, quousque lenitudo consumitur, sanguisque arescat. Et tunc apparet venenum, et occultum manifestatur".

"I also say to you that that Dragon never dies; nevertheless the philosophers have put to death that woman who killed her husbands. For the intestine of that woman is full of poison. So may there be dug a grave for the Dragon, and may the woman be buried there together with the latter, which is strongly united with that woman, and the more it binds her and winds itself about her, the more its body, mixed with the limbs of the woman, inclines towards death, and it turns entirely into blood. When the philosophers have seen that it has changed into blood, they put it in the Sun, till its softness is consumed and the blood becomes dry. Then the poison appears, and what is hidden takes shape".

#### COMMENTARY

This emblem once again represents the union of the opposites. The quotation from the *Turba*, which is the source of the motto, is supplemented in an enumeration of well-known alchemical statements by an anonymous author in the *Theatrum Chemicum* (IV, 576) with the words: "et sic elementis non fit utile absque maris et foeminæ commixtione".

According to Plessner, the motif from the *Turba* (see bibl. under *Turba Philosophorum*), concerning the woman with the deadly poison, originated under the influence of a Hindu myth about the poison-girl who kills men in her embrace.

If one pays due attention to the words that form the source of the motto, the *Atalanta Fugiens* winds up with the revelation of a secret: "What is hidden takes shape". Getting to the bottom of the secret of the Cosmos is the object of the *Opus Magnum* of the alchemists. This is revealed to the true adept after much exertion and trouble; of this Maier also gave evidence—although not clearly at first sight—in the frontispiece of the *Atalanta Fugiens*.

## FRONTISPIECE

(fig. 51)

## SOURCE OF THE FRONTISPIECE

Ovid, *Metamorphoses*, liber X, 560-704;

Robertus Vallensis, *De Veritate et Antiquitate Artis Chemicæ*, in: *Theatr. Chem.*, I, 19;

Jodocus Greverus, *Secretum Nobilissimum et Verissimum*, in: *Theatr. Chem.*, III, 717-721.

## COMMENTARY ON THE FRONTISPIECE

The frontispiece is composed as a frame around the title, and represents among other things the title figure "the fleeing Atalanta".

The fleeing Atalanta which means, New Chemical Emblems regarding the Secrets of Nature, as the title of the book states.

As regards the Atalanta story, Maier drew on Ovid's *Metamorphoses* (X, 560-704). In the *Metamorphoses*, Venus narrates the story of Hippomenes and Atalanta to her beloved Adonis:<sup>1</sup> Atalanta is quickest in the race and does not want to be married. At her father's insistence that she choose a husband, she promises to marry the man who conquers her in the race. Those who do not succeed, however, have to pay for their audacity with their lives. Hippomenes also takes his chance and wins by a ruse, because he throws three golden apples, which he obtains from Venus out of the Garden of the Hesperides, before Atalanta's feet, whereupon she stops to pick them up, and, what is more, she falls under the spell of Hippomenes, as a consequence of which Hippomenes wins the race, and he and Atalanta are joined in marriage.

This story is the motif of the ornamental border on the title page of Maier's *Atalanta Fugiens*. On the right side is Venus, handing the golden apples to Hippomenes. At the bottom left of the page, the race between Hippomenes and Atalanta is pictured; at the bottom right, a round temple of the goddess Cybele is seen. Hippomenes and Atalanta make love in this temple, herewith rousing the wrath of the goddess, who after that changes them into wild animals; in

<sup>1</sup> Following the story of Atalanta and Hippomenes is the story of Adonis, who is killed by a boar and who is mourned by Venus, who rushes up to him (*Metamorphoses*, X, 705-740); Maier uses this motif in embl. XLI.

the picture they are represented as a lion and a lioness. To the left of the page, Hercules occupies himself with gathering the golden apples from the Garden of the Hesperides; this is the eleventh of his labours. At the top, the Garden of the Hesperides is depicted.

In this frontispiece Maier depicts the alchemical process in a nutshell. It begins with the golden apples, which are taken by Hippomenes to the earth and which finally effect the union of the opposites, that is to say the marriage between Hippomenes and Atalanta, the union of man and woman; as the epigram to the frontispiece elucidates, it means the union of Sulphur and Mercury. As such the title forms the preceding reflection of the emblems in the book itself, in which the Sulphur-Mercury idea takes shape.<sup>2</sup> The process of this union is not simple; that is obvious from the race. Atalanta is always fleeing; Mercury always remains volatile and it is extremely difficult to combine it with the non-volatile Sulphur, and this turns out to be possible only by means of the golden apples from the Garden of the Hesperides. They combine in the sanctuary of Cybele, but it is not yet a definite union; for Cybele changes them into wild animals. Cybele, a Phrygian goddess by origin, is also the name for Rhea; she was the daughter of Uranus and Gæa, that is to say of heaven and earth. Hippomenes and Atalanta rouse her vengeance, because her temple was violated by their love, that is to say, the fruit of heaven and earth permits the union of the opposites on earth only after a long process (parallel to the meaning of the *Tabula Smaragdina*) and therefore Hippomenes and Atalanta were first changed into wild animals, into lion and lioness, forming an analogy with embl. XVI, which deals with the wingless and the winged lion.

The alchemical process is a labour of Hercules, and thus in the frontispiece Hercules is pictured as the one who reaches the final aim and gathers himself the apples from the Garden of the Hesperides, from the Garden of Beatitude. The apples had come to the earth

<sup>2</sup> As, for example, in embl. x with the motto: "Give fire to fire, Mercury to Mercury, and it is enough for you"; embl. xv, with the motto: "Let the work of the potter, consisting of dry and wet, teach you"; embl. XXI, with the motto: "Make a circle out of a man and a woman, out of this a square, out of this a triangle, make a circle and you will have the Philosophers' Stone"; embl. xxx with the motto: "The Sun needs the moon, like the cock needs the hen".

by the mediation of Venus, and had their salutary effect there, by which the process ended back in the Garden of the Hesperides.

Maier gives the following explanation in his epigram concerning the title page:

“The restless youth carried three apples,  
Which Venus had given to him from the Garden of the Hesperides;  
And while he pursued Atalanta, he rolled an apple close to the fleeing girl, and then she checked her speed.  
He and she lead alternately, quicker than the East wind.  
Then he throws the second golden apple to the ground,  
And this again makes the girl step short, but again she flees.  
Till the lover repeats this a third time, and then, as a reward, Atalanta yields to her conqueror.  
Hippomenes represents the strength of the Sulphur,  
She the strength of the volatile Mercury;  
In the race the woman is conquered by the man.

After they have embraced each other in ardent love in Cybele’s sanctuary,

The wrath of the goddess effects a change;  
Out of revenge she clothes them with a lion’s skin,  
After that their bodies become red, and they are wild animals.  
My Muse gives you three-part fugues,  
In order to render this race in pictures of an equal nature;  
One voice remains simple and delaying, and represents the apple  
But the other voice is fleeing, and the third follows in the right way.  
Let these emblems manifest themselves to your ears and to your eyes,  
But after that let your reason examine the secret meaning of them:  
I have brought these things to the attention of your senses,  
That your mind may take from these decoy-birds,  
What treasures are hidden in them.

What the world has got in wealth, what medicine has got in benefit,  
All this the twofold lion can provide".

In the choice of his frontispiece Maier was guided by the alchemical tradition of connecting the story of the Garden of the Hesperides and Atalanta with the alchemical secrets. Thus Robertus Vallensis from the 16th century says in his treatise about the veracity and the high age of the Chemical Art, that the story of the Garden of the Hesperides with the golden apples guarded by a dragon, and the saga of Hercules killing the dragon and gathering the golden apples, was already brought into connection with Chemical Art by Eustathius and Suidas.<sup>3</sup>

As can be seen from the epigram, the division of the music that Maier added to his emblems, runs parallel to the race of Hippomenes and Atalanta. In the preface to the reader, which Maier places before his emblems, he says about the canons being three-voiced: "Just as this Atalanta flees, one voice flees time and again from the other one and the other voice pursues, like Hippomenes. In the third voice they are brought to a stand-still; that third voice is simple and homogeneous in its value, like the golden apple". The strong relation between alchemy and music had already been expressed in the writings of Zosimos and Stephanos. This was connected with number mysticism and the Pythagorean views about the music of the spheres, which influenced the conceptions about music into the Middle Ages and the Renaissance (see introduction, p. 28-29, and the notes 57 and 58). Maier sees music in the sense of the mediæval view about the seven artes liberales, in which musica, beside arithmetica, geometria and astronomia form the quadrivium, which gives admittance to philosophia and theologia. This notion can be seen from the discourse of embl. I (1st half of the 2nd paragraph).

There exists a concordance between music and human tempera-

<sup>3</sup> Robertus Vallensis, *De Veritate et Antiquitate Artis Chemicæ*, in: *Theatr. Chem.*, I, 19: "Hesperides . . . . quæ habeant hortos nemore aurifero pretiosos, ubi erat draco custos pervigil mala aurea vigilanter observans, quem interfecit Hercules, pomaque aurea retulit ad Eurysthea. Juxta Hesiod. in Theog. Ovid. Metamorph. et Theocritum in Comaste. Hanc autem fabulam et figmenta, Eustathius et Suidas auctores Græci celeberrimi ad Chemicam artem referunt".

ments. To this Maier alludes in his preface, where he says that the strength of music is capable of awaking or tempering feelings. These are ideas from Antiquity, which pass through a strong revival in the Neoplatonic circle around Marsilio Ficino. He considered music to be a medicine against melancholy.<sup>4</sup>

Moreover, there exists a hierarchy in, and a concordance between, the various kinds of music, namely the *musica coelestis*, the celestial music, the *musica mundana*, the music of the spheres and the *musica instrumentalis*, the human music. To this division into three Maier alludes in the discourse of his embl. VI (last paragraph).

The close connection between spiritualization, alchemy and music has been brought into print in the work of Heinrich Khunrath's *Amphitheatrum Sapientiae Aeternae*, from 1598 (*fig. 82*). It is a round composition; at the bottom along the border, the inscription is found: "Heinrich Khunrath, lover of Theosophy and doctor in each of the two medicines, with God's help, is the designer, Paulus van der Noort from Anvers is the engraver"; at the bottom "H F Vriese pinxit" (Hans Vredeman de Vries) can be read. The representation is situated in a large, oval hall, and is divided into three scenes, with the subject *orare*, *laborare* and *musica*. The composition is of such a nature that a triangle arises, when the three scenes are connected with each other by lines. The perspective of the print is directed to the door at the back of the hall.<sup>5</sup> At this open door the perspective lines of the tabernacle on the left and of the laboratory on the right and of the table with musical instruments meet. The doorway, behind which nothing but a white, shining space is seen, is the centre of the circular composition. The sense of the depiction is that the activities in the Microcosm, the *orare*, *laborare* and *musica*, result in the centre of the circle, in God's infinity (analogous

<sup>4</sup> D. P. Walker, *Spiritual and demonic magic from Ficino to Campanella*, London 1958, p. 5; see also C. de Tolnay, "The music of the Universe", *The Journal of the Walters Art Gallery*, Baltimore, VI (1943), p. 83-105.

<sup>5</sup> A similar perspective also occurs in embl. VIII, by which the philosophical egg in the foreground is connected with a gate in the background, via a long corridor without windows. The thought, however, that the process ends in God's infinity, is not carried through, for the picture shows a stylish trait; through the gate one sees the windows of a building of a town, the façades and the tower of which are seen to stick out above the wall of the inner court, where the alchemist will pierce the philosophical egg with a fiery sword. This stylish turn of the motif can probably be ascribed to Merian.

to the commentary on embl. XXI about John Dee's *Monas Hieroglyphica*).

The various parts of the print bear explanatory mottos; thus it is written on the ceiling of joists: "without divine inspiration nobody becomes a great man"; above the door in the centre: "Be wakeful while sleeping"; in the centre plan of the print, face to face on the left and on the right, stand the oratorium and the laboratorium,<sup>6</sup> with the following mottos: "Do not speak about God without light", above the table, on which are an opened bible and a book with outlines of the cosmos; a man is kneeling before the table, and under the table is a skull with the inscription: "Learn how to die well". This last phrase is also used by Maier in the subheading of his own image (*fig. 52*). On the curtain around the oratorium is to be read: "God himself will be present, with those who devote themselves to this". A little more to the foreground, in the direction of the table with the musical instruments, a small table is standing with a steaming sacrificial vessel, with the words: "Let prayer rise like smoke, like a sacrifice, agreeable to God".

On the right side a chimney is pictured with the inscription "Laboratorium" leaning on two columns "experientia" and "ratio", two pillars of the alchemical opus, to which Maier dedicated embl. XLII. An admonition to work neither rashly nor too timidly is written round the chimney-piece, with the motto: "Wisely tried will succeed once". A little more towards the foreground, again in the direction of the musica, is a distilling apparatus, with the warning: "Make haste slowly", which probably refers to the time necessary for the substance to ripen.

In the middle of the foreground, forming a connecting-link between oratorium and laboratorium, and forming a direct connection with the shining centre of the circle, there is a table with musical instruments, with the inscription:

"Holy music, defence against sadness and bad thoughts; for the spirit of Jehovah sings three times at the zither in the heart, which is filled with devout joy".

These thoughts, coming to the fore in Khunrath's print, form the

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<sup>6</sup> The same contrast between theory and praxis occurs in the frontispiece of Maier's *Tripus Aureus*, (*fig. 55*).



background from which the combination of text and emblems in the *Atalanta Fugiens* with musical compositions is to be explained.

As can be seen from the end of his epigram in the frontispiece Maier intends the emblems for the senses as well as for the mind. Here also, Maier is thinking of hierarchical succession: the emblems "reveal" themselves to the senses, but the mind has to win its way into the "secret meaning" and the "hidden treasures". The hidden treasures are to be found in the Garden of the Hesperides, which he pictures in his frontispiece. Also on this point there are connections between the frontispiece and the separate emblems of the *Atalanta Fugiens*. In the discourse of embl. xxvii (about the Philosophical Rose-garden) Maier speaks about the entry to it: "At the entrance, you will see Venus with her beloved Adonis; she coloured the white roses red with her blood (also motif of embl. xli). You also see the dragon there, which guarded the roses in the Garden of the Hesperides". Thus, by this passage, Maier connects the frontispiece with embl. xxvii. Connected to embl. xxvii is embl. xxvi, about the "Wood of Life", and both are, via the *Rosarium Philosophorum*, inspired by the *Aurora Consurgens* (see commentary on the embl. xxvi and xxvii).

The connection between the frontispiece and embl. xxvii can further be seen from the epigram of embl. xxvii, where the ascent of the Parnassus is dealt with. This ascent of the Parnassus runs parallel to the ascent of the Helicon (cf embl. xii, or to listening to the vulture on top of the mountain, which cries out: "I am white and black, yellow and red", that is to say, I am the alpha and the omega (cf embl. xliii). Just as inaccessible as the top of the Parnassus, of the Helicon and the top of the mountain on which the vulture is standing, is the Garden of the Hesperides. In *Symbola Aureae Mensae* Maier speaks about the tree with the golden apples in the Garden of the Hesperides, and there he quotes Jodocus Greverus, whom he praises as a Presbyter and competent Chemist<sup>7</sup>—in the following words:

"Greverus described this philosophical tree as it is produced by nature. Its root be Mercury; its trunk and branches Saturn and Jupiter; its flowers Venus and Mars, its fruits Luna and Sol, as it were. He says that this is the tree that bears golden apples, that

<sup>7</sup> M. Maier, *Symbola Aureae Mensae*, 268.

is watched in the Garden of the Hesperides by a horrible Dragon, which is the son of Typhon and Echidna (analogous to embl. XLIV about Osiris, who is killed by Typhon), and that if somebody, after having killed the dragon, can get hold of the fruit of that tree, he will have his desires fulfilled".<sup>8</sup>

In virtue of Maier's appreciation of Jodocus Greverus, and in virtue of the fact that he quotes Greverus in relation to the tree in the Garden of the Hesperides,<sup>9</sup> I think to be entitled to consider the following vision about the Garden of the Hesperides, written by Jodocus Greverus, to be one of the "treasures", to which Maier refers in his epigram concerning the frontispiece:<sup>10</sup>

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<sup>8</sup> M. Maier, *Symbola Aureae Mensae*, 269: "Greverus arborem philosophicam describit, prout illa per naturam producit. Cuius radix sit Mercurius, truncus et rami, Saturnus, Jupiter, Venus et Mars flores, Luna et Sol quasi fructus. Hanc esse arborem ait, quae aurea mala gestat, in Hesperidum hortis custoditam a Dracone horribile, Typhonis et Echidnae filio cuius fructum dracone occiso si quis adipisci possit, eum votis suis fruiturum".

<sup>9</sup> Maier pictures this tree as the arbor scientiae in embl. xxvi; further in *Symbola Aureae Mensae*, p. 555, bearing moons and suns as fruit and watered by Saturn, with whom the process commences (fig. 62).

<sup>10</sup> Jodocus Greverus, *Secretum Nobilissimum et Verissimum*, in: *Theatr. Chem.*, III, p. 717-721:

"—collectio seminis—

En advenit, fili mi carissime, messis tua desiderata. Gaude et age immortales immortalis gratias Deo, quia ista nobis intelligere posse concessit, et verba mea ad veram et manifestam sententiae elocutionem direxit. Et tu, fili mi, supplex ipsum adora, ut cum laborare inceperis, duo illa abscondita arcana manifestare tibi dignetur, ut tu quoque Philosophiae tam excelsae studiosus ad preciosissimas hujus sacri convivii epulas accedere dignus sis, et in horto Tantali aurea Hesperidum mala decerpere possis, sopito prius, ut fabulae monent, dracone pervigili. At quia hortus ille muro solidissimo cinctus est, quo modo eum ingredieris? quomodo aurea mala ferentem arborem cognosces? quomodo ea decerpes? O fili carissime, nonne vidisti hortum illum in altissimo et deserto monte constructum, cuius ima pars semper certantibus ventorum discordium viribus murmurat, et veluti chaos quoddam insatiabile, perpetuam calidi et frigidi pugnam alit, medium vero rubeos et nigros habet dracones, quorum perpetua cum chaos insatiabili ventisque pugna est, cumque furor rubeorum draconum, extimulantibus ventorum contrarietatibus exarserit, ipsi quidem ipsorum aestu pereunt, eorumque cadaver chaos illud excipit. Ne tamen aeterna illa pugna requiem habeat ullam, iam iam perituris draconibus rubeis nigri succedunt, qui et ipsi furore exardescunt ignescunt; itidemque ut rubei pereunt, aliis statim ut dictum est succedentibus. Atque nullo unquam tempore pugna haec finitur, nam neque chaos ventique finiti sunt, neque rursus progenies nigrorum draconum deficit unquam. Montis siquidem custos ac dominus ubique nigrorum draconum sobolem conquirens, eam certis

"Behold, my beloved son, the harvest-time desired by you has come. Rejoice and render immortal thanks to God Eternal, because he allowed us to be able to understand those things, and directed my words, so that I arrived at a true and clear statement of the idea. And you, my son, adore that God submissively, so that, when you have made a beginning with the investigation, it will please him to reveal those two hidden secrets, just as you—who apply yourself assiduously to the study of the much exalted Philosophy—are also worthy to participate in the very select courses of this sacred ban-

temporibus in medium montem immittit: montis vero cacumen singulis annis triplicem habet variationem. Nam hyeme quidem ferventissimis favillis, AETnae montis instar exaestuat, vere autem toto oculo igne priore stagnantibus thermis et juncis palustribus inundat. aestate porro absorptis penitus thermarum aquis, cinis eorum adhuc tepidus, interdum vero etiam calidissimus prope attollitur, quae hyberno igne combusta credi possunt. at autumno rursus cineres disparent, et sese arena subtilissima, et caloris fervidi, rubescens nonnihil, in eorum locum ingerit; quam ego existimo reliquias, vel saltem fundum esse aquarum, quae verno tempore stagnaverant. In hoc ipso monte, fili mi, vidisse te opinor regales Hesperidum hortos, in quibus rosae aureae et argenteae, itemque mala punica aurea et argentea proveniunt, annumque fructum ferunt. Ad hunc autem hortum accessus ipse difficilis, ingressus difficilior, decerpere autem ipsa mala aurea vel argentea longe difficilimum. Ea siquidem montis ratio est, ut neminem admittat nisi qui hyberno frigore accesserit. Quare et tu hyemis tempore accede, neque frigus horresce, ignis etenim qui est in aditu horti vix aestum perferre poteris. Videbis autem in summo montis custodem horti turrim altissimam, cum duobus propugnaculis, quae omnia in ardentissimo igne sita sunt. Oportet autem hortum hunc ingredi volentem, ante omnia tauros naribus ignem eflantes domare, et per turrim ac propugnacula ignea transire. Hoc autem magno cum labore et vitae dispendio tentatur. Laboris certe magnitudo tanta est, ut non prius quam hyems finiatur transire possis. Periculum autem ex tot incendiis tantisque flammarum fervoribus non minimum utique imminet. Huc igitur ingressuro Medae sunt acquirenda medicamina, quae ipsa Jasoni olim hunc hortum ingredi conanti tradiderat. Quod si, fili carissime, medicamentum hoc non inveneris, da operam ut industria tua modum invenias, quo praedictas munitiones illaesus transeas. Nam si eas praeterieris tantum, non autem transieris, hortum tibi ingredi nunquam licebit. Ac ego quidem cum aviditate magna et desiderio horti tenerer, videremque me flammam absque periculo transire non posse, nolui tamen prius abire quam expectarem si quis forte veniret, qui transitus rationem monstraret aut forte ignis ardor imminueretur. Et tunc quidem post me nemo advenit, et iam iam hyemis finis erat pro foribus: ecce autem interea subito magnus motus factus est illius turris, flammaque diminui coepit, quae non multo post extincta est, et turris et propugnacula quasi absorpta sunt, quod ubi factum est, statim eadem illa hora, qua turris steterat, ad hortum accurri, nonnihil attonitus ex his, quae contigisse videram. Atque ego quidem cum prope hortum accessissem, stagnantibus undique thermis impeditus sum ab eius ingressu, erat enim hortus adamantino et diaphano cinctus muro in medio stagnantium aquarum

quet, and as you are also worthy of being able to gather the golden apples of the Hesperides in the garden of Tantalus, first having made the always watchful dragon unconscious, as the legends urge. But, as that garden is fenced in by an extremely strong wall, the question has to be put: "In what way can you enter the garden? And how do you recognize the tree bearing the golden apples? And in what way do you gather them?" Oh, beloved son, did you not see that that garden is laid out on a very high and lonely mountain, the foot of which is always surrounded by the noise caused by the

calidarum. Sed et aquae et hortus ipse lateritio foris muro cingebatur: videbam autem gradus tres angustae cuiusdam semitae, per quos spes erat accessus, ac nihil cunctatus sequi coepi, et apertus mihi est murus lateritius: et cum essem in primo gradu, veluti quadam putredinis maleolentia offensus aliquamdiu haerere coactus sum. Calor autem erat valde conveniens putredini: qui tamen absumpta putredine ulterius prodeundi copiam dedit ad secundum et tertium gradum, in quorum unoquoque semper occurrebat aliquid quod me remoraretur, adeo ut cum iam me horto proximum crederem, mox montis facto tremore, aquae absorberentur, et relinqueretur fossa profunda muro lateritio circumdata, cuius fundus calidis omnino cineribus aestuabat. Hortus autem in medio cinerum, ad quem tres fossarum ductus erant, quarum diversi erant calores, nam qui horto erat vicinior, erat aliis item multo calidior. Tantum autem laboravi, donec iam ad aggerem tertii ductus ascenderem: cum iterum facto tremore mons concussus est, et cineres obscura caligine involvit, in quorum locum ferventissima arena successit, hortum undique cingens unico aggere. Iamque hic optimam spem concepi, finem laborum prope esse: quemadmodum et evenit. Nam cum ex aggere contemplerer horti flores amoenissimos, videremque tanta miracula, quanta non licet eloqui, attonitus factus sum tanto stupore, ut quo modo me Senior quidam in hortum introduxerit iam tum vix succurrerit. Idem autem ille senior in manu sua septem claves habebat, quibus ego arbitror seras portarum horti ipsum interea aperuisse, dum ego attonitus in aggere starem. Deduxit autem hic senex me venerandus ad arborem aurei mali, apud quam draco quidam mortuus non multo ante tempore occisus jacebat, eiusque sanguine mala aurea infecta erant. Mihi vero animus ardebat cupiditate decerpendi mala aurea, quod cognoscens senior, et me placide inspectans ait: Depone, fili, mundanarum concupiscentiarum illecebras. Fructus enim isti non nisi Divinis mentibus dantur. Ad cuius verba contremui totus, non enim antea vocem eius audiveram similem, ad quam quidem ego quasi immutatus sum, et multa intelligentia ornatior factus visus sum mihi. Ille vero in alteram mihi visus est transire formam, atque eam quidem augustam multum, et quasi terribilem, iamque non hortulanum, sed ipsum horti dominum agnoscebam esse. Subiit vero me timor non exiguus, ne temeritatis meae poenas darem, qui tanti domini hortum furtim ingredi cogitassem unquam. Ac dum anceps varia animo volverem, et hinc quidem metus, illinc desiderium et spes me tenerent, ipse extensa manu aliquot decerpsit poma aurea, inspectansque poma ac me vicissim, Hortum, inquit, hunc felicitatis et sapientiae, quem nos hominum gratia plantavimus, ac ut bestias aceremus adamantino cinximus muro, fraude doloque hominum peti videmus, non intelligentium nemini huc ingressum patere, nisi justis,

fighting forces of disharmonious winds, and which, as an insatiable chaos, fosters a struggle between coldness and heat. The middle part of the mountain, however, has red and black dragons, which wage a never ceasing fight with the insatiable chaos and the winds. That fight is without end, because, when the fury of the red dragons is inflamed by the increasingly agitating opposites of the winds, they themselves perish by their own glow and the chaos takes their dead bodies in. Nevertheless this eternal struggle knows no rest, because the red dragons, doomed to death, are succeeded by black dragons,

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castis, probis, bonisque, quos nos ipsi attrahimus: et si constantes eos quidem habuerimus, finitis tandem laboribus, huc introducimus, et huiusmodi muneribus eosdem dilatos placide dimittimus. Haec dicens, mala, quae decerpserat mihi tradidit: quae ego coram ipso procidens, quanta majore potui reverentia et veneratione excepi, et in sinu meo recondidi gaudens. Quumque ut illi gratias agerem me pararem quas animo conceperam, nondum, inquit, finis est, fili mi, sed hac me sequere: deduxitque me in officinam, quae extergendis aureis malis draconis sanguine aspersis erat depurata, ac desumpto ex pyxide quadam lignea pulvere nonnihil albicante partem eius mihi tradidit, dicens: Hic est pulvis detergens omnem maculam, et resuscitans omnem mortuum, discede, ac cela secreta, purifica conspersam igne et pulvere, cole terram et semina purificatum, et crescat, et germinet tibi terra tua fructum cupiosum. His dictis e conspectu meo disparuit. At ego attonitus obstupui, cumque deinde ad me rediissem, quasi ex somno excitatus esse mihi videbar, nam quasi fessus longo itinere et labore fatigatus domi meae in lectulo meo jacebam, putassemque omnino somnium me vidisse, nisi et aurea mala et pulveres in manu habuissem, verborumque omnium tam exacte meminissem. Sed sive revera hortum ingressus tunc fuerim, sive in visione tantum eo delatus, sive insomnium viderim, benedictum sit nomen eius in secula, qui mihi tanta naturae mysteria aperire dignatus est, et donum suum a me indigno peccatore non abstulit. Laudetur, benedicatur, et superexaltetur Pater, Filius, et Spiritus Sanctus, unus Deus in seculorum secula, Amen.

#### CONCLUSIO

Habes, fili mi, universum processum operis nostri, absque diminutione aliqua, et absque omni superfluitate, competenti orationis stylo comprehensum. Aptam igitur cor tuum, ut gratiam in oculis Dei invenias. Donum namque Dei est, habens mysterium individuae unionis Sanctae Trinitatis. O scientiam praeclarissimam, quae est theatrum universae naturae, eiusque anatomia, astrologia terrestris, argumentum omnipotentiae Dei, testimonium resurrectionis mortuorum, exemplum remissionis peccatorum, infallibile futuri iudicii experimentum, et speculum aeternae beatitudinis. Non est profecto ulla hac excellentior: utpote quae una omnes scientias complectitur et continet, ipsa a nulla earum comprehensa. Tibi vero, o ineffabilis Majestas, sit sempiterna gratiarum actio, laus, et benedictio, quia a me tuam gratiam non abscondisti, artisque secretissimae mysteria mihi revelasti, unde sit nomen tuum sanctum benedictum in sempiterna secula, Amen. Vir inspiens non cognoscet, et stultus non intelliget haec. Saccharum psittaco, faenum bovi"

which, they themselves also breaking out into rage, are inflamed and perish like the red dragons, while—as is said—others succeed them immediately. But this struggle never ends in all eternity, for neither chaos nor winds are finite nor does the offspring of the black dragons ever disappear. Nevertheless does the guardian and master of the mountain collect the black dragons' offspring at regular intervals and sends them to the centre of the mountain. The top of the mountain, however, shows a threefold change in one single year. In winter it blazes with glowing sparks, like the Etna; in spring, however, the top is flooded with stagnant, hot pools and marshy reedlands, while the entire fire of the winter is hidden. In summer, however, when the waters of the hot swamps are quite dried up, the ashes of things, of which it may be assumed that they were burnt by the wintry fire, appear to be still tepid, although the fiercest heat is gone. In autumn the remainders of the ashes disappear again and very fine sand comes in their stead, which is glowing-hot, it is true, but certainly not red-hot; I think that it is the remainder or the very bottom of the waters that flooded the summit in spring-time.

In this mountain, my son, I think you have seen the royal gardens of the Hesperides; in those gardens the golden and silver roses grow and from there come the purple-coloured apples, the golden and the silver ones, and they bear fruit annually.

The access to this garden, however, is difficult, but the entrance still more difficult and much more difficult is the gathering of the golden or silver apples themselves. For the behaviour of the mountain is of such a nature that nobody is admitted, who has not experienced the wintry cold first. Therefore you also have to approach it in winter, and you must not be intimidated by the cold, for you will scarcely be able to stand the heat prevailing at the entrance. On the top of the mountain you will come upon a very high tower, the guardian of the garden<sup>11</sup>; the tower has two parapets, which are both situated in a blazing fire. He who wants to enter this garden, has to conquer above all the bulls, which blow fire out of their nostrils<sup>12</sup> and has to go through the gate and the fiery parapets. This requires enormous efforts, and one risks one's life. This is such an immense task that one is not ready to force one's way through before the end of the winter. However this may be, the danger that is imminent because of so much fire and such an enormous blaze is not slight. Therefore he who wants to enter must try go get the medicines which Medea once gave to Jason,<sup>13</sup> when the latter tried

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<sup>11</sup> The vulture on the top of the mountain from embl. XLIII is parallel to this guardian of the garden.

<sup>12</sup> It means that one should first accomplish the labours of Hercules or the tasks of Jason.

<sup>13</sup> The expedition of Jason and the Argonauts in order to capture the

to enter the garden. Beloved son, if you do not succeed in finding these medicines, exert yourself to find a way by your own industry, by which you can go through the afore-mentioned menaces. For if you only go past them and not through them you will never be allowed to enter the garden. But although I was filled by an overwhelming yearning after the garden, and saw that I could not pass the flames without danger, I did not want to go away before I had seen whether perhaps somebody would come who would show me the way to pass, or whether the blaze might be extinguished. And when nobody came after me and the winter was already wearing away quickly, the tower suddenly began to move strongly, the blaze began to decrease and was quite extinguished some moments later, and tower and parapets had dissolved, as it were, and had disappeared, and when that had happened, I immediately ran to the garden, whilst it was still the same season as when the tower still stood; and I was not at all astonished by the things I had seen happening. But when I had nearly entered the garden, I was cut off from the entrance by stagnant, hot waters on all sides. The garden was surrounded by a diaphanous wall, strong as iron, and was in the middle of the stagnant, hot waters. But the garden as well as the water were surrounded in their turn by brickwork outside the wall. I saw, however, three steps of a narrow road, along which I hoped to find admittance and, without losing time, I began to follow them, whereupon the brickwork opened before me. And when I was on the first step, I was compelled to stand still for some time, because I was struck by a horrible smell of decomposition. The heat agreed with the tepid warmth of a rotting process.<sup>14</sup> When this had passed I obtained admittance to the second and the third step, where there was something all the time which detained me, even so that, when I thought I was already quite near the garden, there took place an enormous trembling of the mountain,<sup>15</sup> by which the waters disappeared and a deep ditch, surrounded by a brick wall remained; the bottom of the ditch was ablaze with the glowing ashes. In the middle of it was a garden, and three roads from the ditches led to it, having different degrees of heat, which increased in heat in proportion to their distance from the garden.<sup>16</sup> I strained every nerve,

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Golden Fleece was interpreted alchemically already by Suidas in the 10th century (cf embl. XLIX).

<sup>14</sup> This is the stage of the putrefactio.

<sup>15</sup> Parallel with *O.T. Judith* 16, 18: "Montes a fundamentis movebuntur cum aquis: petrae, sicut cera liquescent ante faciem tuam", "The mountains will shake like water on their foundations, the rocks will melt like wax before your countenance".

<sup>16</sup> Association with the *O.T. Habakkuk*, 3, 4, speaking about God's attributes: "Splendor eius ut lux erit . . . .", "His magnificence will be like a fire . . . ."

till, already on the point of climbing the earthen bank of the third road, I felt another mountain shock, which enveloped the glowing ashes in a dark haze, from which scorching hot sand appeared, which surrounded the garden with a bank on all sides. My expectations were strained to the utmost, as to whether I was near the end of my ordeal; and it turned out to be true. For, as I perceived the enchanting flowers of the garden from the bank and saw miracles so great that I may not speak about them, I was so thunderstruck by utmost astonishment that I scarcely noticed in what way an old man led me into the garden.<sup>17</sup> This same old man carried seven keys in his hand,<sup>18</sup> with which, I think, he himself opened the bolts of the gates of the garden, while I stood on the bank, dumb with astonishment. This old man led me to the tree with the golden apples, in order to let me venerate the tree. A dragon was lying near the tree, which had been killed just before and by whose blood the golden apples were affected. I was burning with desire to gather the golden apples; the old man knew this and while he surveyed me calmly he said: "Son, lay aside the seductions of earthly desires, for this fruit is only given to Divine Spirits". His words made me tremble from head to foot, for I had never heard such a voice; I was, as it were, changed by this voice and I got the impression that my consciousness had broadened considerably. It seemed to me that the old man changed his shape; he became a very exalted and, as it were, terrible figure, and I perceived that he was not the gardener whom I had seen just before, but the master of the garden himself.<sup>19</sup> A strong fear came over me that I would be punished for my audacity of having ever thought of penetrating the garden of such a mighty master in a cunning way. And while, full of doubt, I considered several things and was alternately under the spell of my fear and then filled with desire and hope, he himself stretched out his hand and gathered some golden apples, and whilst he looked in turn at the apples and at me he said: "This Garden is the Garden of happiness and wisdom,<sup>20</sup> and we have laid it out for man's sake and in order to

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<sup>17</sup> The adept does not enter under his own power, but is ushered in by an old man, who will turn out to be the master of the garden himself; analogous to *Psalms* 126, 1-2: "Nisi Dominus aedificaverit domum, in vanum laboraverunt qui aedificaverunt eam", "If the Lord does not build the house, those who are building it, work in vain".

<sup>18</sup> to be compared with the key from embl. xxvii and the number of seven of the parables from the *Aurora Consurgens*.

<sup>19</sup> The gardener turns out to be the master of the garden; analogous to Christ, who, as a gardener, appears to Mary Magdalene, *N.T. S. John*, 20, 15-16: "'Woman', Jesus said to her, 'why are you weeping? Who are you looking for?' She, supposing that he was the gardener . . . . . Jesus said to her: 'Mary!' She turned and said to him: 'Rabboni!' which means Master".

<sup>20</sup> epigram embl. xxvii.



exclude irrational beings we have surrounded it with a wall as strong as iron; we saw that it was threatened by the guile and ruses of man; there is no admittance for anyone of the thinking beings, except for the righteous, the innocent, the modest and the good; and we ourselves attract those (see note 17). And when we observe that they are persevering and steadfast we finally usher them in here after the ordeal is over, and after we have bestowed upon them gifts of this nature, we let them go again quietly". With these words he handed me the apples he had picked. I threw myself upon the earth before his face in deepest veneration and adoration, and deeply rejoicing I put the apples into my pocket. When I was on the point of thanking him he said: "My son, this is not all, follow me; and he led me to a work-room, which was purified, the dragon's blood that had bespattered the golden apples having been removed, and after he had taken a slightly sparkling whitish powder out of a wooden box, he handed part of it to me with the words: "This powder blots out every stain, and resuscitates any dead; go away, keep the secrets hidden, purify the moistened (earth) with fire and powder, work the earth and sow what is purified (embl. VI), and let it thrive and sprout and may your earth give you ample fruit". When he had spoken these words, he disappeared from sight. But I was thunderstruck and dazed, and when I came home after that, it seemed to me as if I awakened from sleep, for, nearly exhausted by the long journey and tired by the work, I threw myself onto my bed, and I should truly have believed that I had only seen everything in a dream, if I had not had the golden apples and the powder in my hand, and moreover, such a sharp recollection of all words spoken to me. But, however that may be, whether I really was in the garden then or was only led to it in a vision or saw it in a dream, the name of him be blessed to all eternity, who has seen fit to reveal to me such awe-inspiring mysteries of nature, and has not kept his gift from me, unworthy sinner. The Father, the Son and the Holy Spirit be praised, blessed and exalted, the only God in al eternity, Amen.

#### Conclusion

My son, here you have the whole process of our work in your hands, without any disruption and without any superfluity and summarized by a competently written eloquence. Therefore, prepare your heart, that you may find favour in God's eyes. For it is a gift of God and it contains the secret of the indivisible unity of the Holy Trinity. O most precious of all sciences, you are the theatre of the whole nature and its anatomy, the earthly astronomy, the truth of God Almighty, the proof of the resurrection of the dead, the example of the remission of sinners, the unmistakable proof of the future Last Judgment and the mirror of eternal bliss. Truly, no

science is more exalted than this one; for this one science contains all sciences, without being included in one of them itself.

But, thanks, praise and honour to You only, o ineffable Majesty, because you have not kept your grace from me and have revealed the secrets of your most hidden works to me; therefore your sacred name be praised to all eternity, Amen.

An unwise man will not get to know these things  
and a fool will not understand them.

A sack of cummin belongs to a parrot and hay to a cow".

This vision of Greverus turns out to be one of the hidden treasures to which Maier refers in his epigram in connection with the frontispiece. From this apotheosis can be seen that the frontispiece, as it were, forms the key to all the emblems of the *Atalanta Fugiens*. To Maier and contemporary alchemists and for alchemists from earlier centuries, alchemy was more than the transmutation of metals. They dealt with the human soul, with the transmutation process, in which the soul learns to recognize its own divine source, hidden and obscured in the coarse, dark earth. Alchemical thoughts are gnostic thoughts, as has repeatedly become clear from the emblems of the *Atalanta Fugiens*.

## SUMMARY AND CONCLUSION

For the greater part Maier has taken the mottos of his emblems in the *Atalanta Fugiens* directly from well-known alchemical writings. The epigrams are also directly borrowed therefrom or based on them. Here follows a summary of the writings used by Maier for motto and epigram.

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|---------------|---|---|
| Embl. I:      | Hermes Trismegistus, <i>Tabula Smaragdina</i> ,<br>in: <i>Theatr. Chem.</i> , I, 362.                     |   |
| Embl. II:     | Hermes Trismegistus, <i>Tabula Smaragdina</i><br>in: <i>Theatr. Chem.</i> , I, 362.                       |   |
| Embl. III:    | <i>Turba Philosophorum</i> ,<br>in: <i>Art. Aurif.</i> , I, 10.   |   |
| Embl. III:    | <i>Opus Mulierum et Ludus Puerorum</i> ,<br>in: <i>Art. Aurif.</i> , II, 184-219.                         |   |
| Embl. IV:     | <i>Tractatulus Aristotelis de Practica Lapidis Philosophici</i> ,<br>in: <i>Art. Aurif.</i> , I, 389.     |   |
| Embl. V:      | <i>Tractatulus Aristotelis de Practica Lapidis Philosophici</i> ,<br>in: <i>Art. Aurif.</i> , I, 394-395. |   |
| Embl. VI:     | <i>Tractatulus Aristotelis de Practica Lapidis Philosophici</i> ,<br>in: <i>Art. Aurif.</i> , I, 397.     |   |
| Embl. VI:     | <i>Clangor Buccinae</i> ,<br>in: <i>Art. Aurif.</i> , I, 550.   |   |
| Embl. VI:     | <i>Rosarium Philosophorum</i> ,<br>in: <i>Art. Aurif.</i> , II, 312.                                      |   |
| comparison    | }   | Senior, <i>Tabula Chimica</i> ,<br>in: <i>Theatr. Chem.</i> , V, 212. |
| with farmer's |   | <i>Gloria Mundi</i> ,<br>in: <i>Mus. Herm.</i> , 248-249.             |
| work          | Basilii Valentinus, <i>Practica Cum Duodecim Clavibus</i> ,<br>in: <i>Mus. Herm.</i> , 409-414.           |   |
| Embl. VII:    | Senior, <i>Tabula Chimica</i> ,<br>in: <i>Theatr. Chem.</i> , V, 206 and 239.                             |   |
| Embl. VII:    | Lambsprinck, <i>De Lapide Philosophico Libellus</i> ,<br>Frankfurt 1625, embl. VII.                       |   |
| Embl. VIII:   | <i>Opus Mulierum et Ludus Puerorum</i> ,<br>in: <i>Art. Aurif.</i> , II, 192.                             |   |
| Embl. VIII:   | <i>Turba Philosophorum</i> ,<br>in: <i>Art. Aurif.</i> , I, 74-75.  |   |
| Embl. IX:     | <i>Turba Philosophorum</i> ,<br>in: <i>Art. Aurif.</i> , I, 57.   |   |
| Embl. X:      | <i>Aurora Consurgens</i> ,<br>in: <i>Art. Aurif.</i> , I, 230.  |   |
| Embl. XI:     | Morienus, <i>De Transmutatione Metallorum</i> ,<br>in: <i>Art. Aurif.</i> , II, 43-44.                    |   |

- Embl. xi: *Rosarium Philosophorum*,  
in: *Art. Aurif.*, II, 305.
- Embl. xi: *Clangor Buccinae*,  
in: *Art. Aurif.*, I, 537.
- Embl. xii: Hesiod, *Theogony*, I, line 497,  
(line 477 sq and 492 sq.)
- Embl. xiii: *Clangor Buccinae*,  
in: *Art. Aurif.*, I, 537.
- Embl. xiii: *Aurora Consurgens*,  
Cod. Voss. Chem. no. 29, end of the 4th parable.
- Embl. xiii: *Old Testament*, II Kings, V, 10.
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- Embl. xx: *Turba Philosophorum*,  
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- Embl. xxi: *Rosarium Philosophorum*,  
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- Embl. xxxi: *Psalm LXIX*, 3.
- Embl. xxxii: *Allegoriae super Turbam*,  
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- Embl. xxxvi: *Rosinus ad Saratantam Episcopum*,  
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- Embl. xxxvi: Morienus, *De Transmutatione Metallorum*,  
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- Embl. xxxviii: *Rosinus ad Saratantam Episcopum*,  
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- Embl. xxxviii: Arn. de Villanova, *Speculum Alchymiae*,  
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- Embl. xl: *Rosarium Philosophorum*,  
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- Embl. xlii: —
- Embl. xliii: Hermes Trismegistus, *Tractatus vere Aureus de Lapide Physici Secreto*,  
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Maier's *Atalanta Fugiens* turns out to be a book, the emblems of which are based on a centuries-old tradition. The mottos are for the greater part taken from alchemical writings, which, translated from Arabic into Latin, have become known in Western Europe from the 12th century onwards, like Morienus' *De Transmutatione Metallorum*, Senior's *Tabula Chimica*, Rosinus ad Saratantam, the *Turba Philosophorum* and the *Allegories about the Turba*, the *Tabula Smaragdina*; and further from works written in the three following centuries in Western Europe, inspired by the Arabic alchemical writings and influenced by the religion, philosophy and mysticism of the Middle Ages, like, for example, (Pseudo) Aristotle, *Tractatus de Practica Lapidis Philosophici*, from the 13th century; Petrus Bonus, *Margarita Pretiosa Novella*, dating from 1330; writings by the hand of, or ascribed to, Arnoldus of Villanova and Raimundus Lullius from the 14th century; or the anonymous *Opus Mulierum*, probably also from the 14th century; further the *Rosarium Philosophorum*, the works of Lambsprinck, Bernhardus Trevisanus, Ripplæus and the anonymous *Clangor Buccinae*, from the 15th century).

The emblems of the *Atalanta Fugiens* do not intend to render a fixed succession of various alchemical processes, beginning with looking for the primary matter, and ending with finding the Philosophers' Stone. The alchemical allegories, which were handed down, over and over again, enjoyed high authority, and gave cause for ever renewed interpretation, and so they are cited in several

alchemical writings in a very divergent combination and succession. The same is the case with the emblems of the *Atalanta Fugiens*. Maier has used the allegories and well-known pronouncements in order to elucidate once more a new aspect of the all-embracing Hermetic Wisdom. By this way of elucidation Maier has connected the emblems mutually, and in doing so the meaning of one emblem explains the meaning of other emblems at the same time.

It is remarkable that a large number of the mottos, as is clear from the above list, occurs in the collective work *Artis Auriferae*. This was considered to be one of the most important alchemical collective works. In pursuance of this, I conclude that *Artis Auriferae, Quam Chemiam vocant, Antiquissimi Authores* has served as a guide to Maier when composing the emblems of the *Atalanta Fugiens*. Of course, he very well knew the alchemical authors who do not occur in *Artis Auriferae*, as can be seen from the alchemical bibliography, which has been composed in connection with the names Maier mentioned in the discourse of his emblems.

Although all the emblems of the *Atalanta Fugiens* have a polyvalent character, in which alchemical and religious ideas are mixed and the idea of the one field is expressed in an allegorical pun in the other field, Maier has especially stressed the alchemical and religious ideas of his emblems in three salient places of his work, namely at the beginning, in the middle and at the end. The first two emblems are a quotation from the *Tabula Smaragdina*, ascribed to Hermes Trismegistus, a short text, which tries to summarize the changes in Nature and the connection between Microcosm and Macrocosm, and thus tries to summarize the starting-point of alchemy. The *Tabula Smaragdina*, as one of the oldest esoteric-alchemical texts, led to many writings in Arabic and West European alchemy, in which writing religion, magic and alchemy were connected undetachably, and further, to many commentaries on the contents of the *Tabula*, which agree with the thesis that the cosmic soul should be united with purified matter into a solid body, the Philosophers' Stone, with which all transmutations desired can be brought about.

The middle of the *Atalanta Fugiens*, emblems xxvi and xxvii, is based on *Old Testament* sources. In contrast to the other emblems, numerous references to passages in *Ecclesiasticus*, *Sapientia*, *Proverbia*, *Canticum Canticorum* and *Baruch* occur in the discourse of

emblems XXVI and XXVII. As we can see from the mention of the numbers of verses, Maier used these sources directly; but at the same time partly indirectly, via the *Rosarium Philosophorum*, which has also an *Old-Testament* foundation for its considerations, and which also served as an example for Maier, as it occurs in *Artis Auriferae*. It is doubtless not a coincidence that Maier put these texts in the centre of his book and gave emblem XXVI the motto: "The fruit of human Wisdom is the Wood of Life". The true object of alchemy is to obtain the Sapiientia by reading "The book of Nature", by which one can approach God and can lift the fallen Adam from the dust. The ideals of the alchemist and the Rosicrucian are the same. Solomon in his wisdom got to the bottom of the secrets of Creation and was therefore classed among the adepts of Hermetic Wisdom of old, and for that reason the *Song of Songs* was interpreted alchemically. An appendix was attached to the *Atalanta Fugiens* to the edition of 1703, appearing under the title *Chymisches Cabinet*, with passages from the *Song of Songs*, which were considered to be applicable to the "Universal-Tincture of the Philosophers".

The *Atalanta Fugiens* ends with an emblem, the motto of which is borrowed from the *Turba Philosophorum*: The *Turba* is a mixture of cosmological and alchemical considerations; the text possibly already came into being about 900, and was translated from Arabic into Latin and penetrated into Western Europe. During the next centuries the *Turba Philosophorum* remained a source of inspiration in alchemical literature. The first ten sententiæ from the *Turba* deal with the creation of the Universe, about the nature of the elements and the connection between them. The next part of the *Turba* is alchemical. The contents of the *Turba* also contributed much to the polyvalent meaning of alchemical pronouncements; thus, for instance, fire is the substance out of which God created the angels (sent. IX), fire is the active principle in Nature, but by fire may also be meant the wood-fire of the alchemist or the warmth of "horse dung", a much used alchemical expression by which the substances dissolve or by which "the egg" is hatched.

Nine emblems of the *Atalanta Fugiens* appear to have borrowed their mottos directly from the *Turba*, namely the emblems about the philosophical egg (VIII), about the tree and the rejuvenation of the old man (IX), about women's work which has to be done, when



one has the white lead (XXII), about the symbolism of the coral tree (XXXII), about the hermaphrodite, who, like a dead person, needs fire (XXXIII), about the hardening of the stone in the fire (XXXV), about the completion of the work by the Sun and its shadow (XLV), and about the union of woman and serpent (L).

So the meaning of these emblems has to be seen against the background of the *Turba*.

For the rest, the influence of the *Turba* is not limited to the emblems mentioned. Allthrough the book, Maier quotes the *Turba* in the discourse, for instance in the following emblems: the woman nursing the toad (Theophilus dixit; embl. v), the young bird flying up from, and falling down, into the nest (Bonus; VII), the stone devoured by Saturn (Agadimon and Emiganus and twice *Turba*, without mentioning the name of the speaker; XII), the four fire circles (Yximidus, Dardaris and Mosius; XVII), the philosophical rose-garden (Bacusser—a slip of the pen by Maier for Bacasser; XXVII), the stone thrown onto the earth and lifted onto the mountains (Mundus; XXXVI), the legend of Oedipus (Bacasser; XXXIX), and Nature, reason etc. (Bacasser; XLII).

From this, the great importance of the *Turba Philosophorum* for Maier appears. He brings the meaning of the *Turba* in connection with the *Atalanta Fugiens* as a whole. He gives an explanation of the emblems with a mythological motif, the motto of which he borrows from Hesiod, Strabo or Ovid, basing this explanation on the *Turba*.

Maier probably experienced the influence of Greek-alchemical writings exclusively via Latin-alchemical writings. That he nevertheless devoted a number of his emblems to mythological motifs occurred at the indication of Petrus Bonus, who writes in his *Margarita Pretiosa Novella* (1330) that the work of Ovid and Virgil deal with Hermetic Wisdom in a concealed form; further under the influence of Neoplatonic trends in Renaissance philosophy, and finally after alchemical examples from the 16th century. Maier took the mottos of the emblems with a mythological theme from non-alchemical sources, from Hesiod (embl. XII), Strabo (XXIII), Diodorus Siculus (XLIV) and Ovid (XLIX).

As regards the pictures of the emblems, part of it agrees with the emblems from Lambsprinck's *De Lapide Philosophico Libellus*, but

as long as no illustrated Lambsprinck text from before 1625, the edition in which the engravings by Merian occur, is known, Maier's dependance on Lambsprinck can be established exclusively in connection with Lambsprinck's text. The picture of emblem XI is inspired by the representation of the abluition of Laton with azoch et ignis from the manuscript of the *Aurora Consurgens* (Cod. Vossianus Chemicus no. 29, Univ. Libr. Leiden, folio 43 sq). This connection with a very mystic-chemical manuscript, which originated certainly not later than the 15th century, points to the fact that Maier—also in view of his interest in the ideals of the Fraternity of the Rosicrucians—particularly wanted to stress the esoteric side of alchemy with his emblem book.

Maier's *Atalanta Fugiens* was published in a time in which great changes were taking place in the theological and scientific field. The Reformation started in the 16th century; in science, pioneering figures came to the fore, who, with their new vision, freed science from the limitations imposed by mediæval theology. In the field of astronomy, the theories of Copernicus (1473-1543), the observations of Tycho Brahe (1546-1601) and Kepler (1571-1630) changed the image of the world, as it was fixed up to, and into, the 16th century by Ptolemy. In the medical field, the system of Hippocrates and Galen crumbled to pieces under the influence of the iatrochemistry of Paracelsus, the anatomical research by Vesalius (1514-1564) and the discovery of the blood circulation by Harvey (1578-1657). In the physical field, Simon Stevin (1548-1620), Francis Bacon (1561-1626) and Galileo Galilei (1564-1642) dominated. A gap began to arise between the truth of theology and the truth of science. Maier stands on the spot where the ways of theology and science part, and he tries to bring about a synthesis in his writings; he wants to prove that science and theology are two aspects of one Divine Truth. For this purpose, Maier uses old, traditional alchemical pronouncements, in which both fields are undetachably united, but at the same time he takes a critical view of the alchemical practices in that he rejects the magical, unreal tests of the alchemists whose only aim it is to make gold, as is shown by his book *Examen Fucorum etc.*, and that he values critical, practical investigation into the matter. His cosmological conceptions, which he expressed by citing alchemical sources from the Middle Ages, correspond to the ideals of the Fra-

ternity of the Rosicrucians, in which he sees an incarnation of this Hermetic Wisdom.

From Maier's endeavour to unite science and theology, it may also be explained that Maier strongly stresses the necessity of paying as much attention in alchemy to theory as to practice. However, this is a tie which is gradually loosened after Maier's life. On the one side, the alchemical pronouncements are used more and more for mystical contemplations without the background of alchemical experiments; on the other side, the research into the nature of the matter continues for the sake of knowing the matter itself, the possibility of bringing about the transmutation of metals not being rejected, but without mystical speculations playing a predominating part in it.

As an example of the development to the one side I mention the Fraternity of Freemasons, where alchemical symbolism finds a new accommodation in the 18th century. As an example of the other line of development one may choose Newton (1642-1727), the great physician, mathematician and astronomer, who very actively participated in an alchemical revival at Cambridge at the end of the 17th century, and whose library consisted to ten per cent of chemical and alchemical literature. Maier also belonged to the important alchemical authors who were represented in Newton's library.<sup>1</sup>

The *Atalanta Fugiens* is a book in which the author shows that he is conscious of the turn of the tide. In his efforts to give shape to his vision of the connection between Macrocosm and Microcosm, the connection between science and religion, between matter and spirit, Maier reverted to mediæval alchemical writings, and his *Atalanta Fugiens* became a manifestation of these thoughts and, as appears from the reprints of 1687 and 1708, held the attention of some generations after him.

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<sup>1</sup> R. J. Forbes, "Was Newton an Alchemist?", *Chymia*, vol. II, (1949). p. 27-36.

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\*AGRICOLA (GEORG), *De Re Metallica Libri XII, Quibus Officia, Instrumenta, Machinae, Ac Omnia Denique ad Metallicam spectantia, non modo luculentissime describuntur, sed et per effigies, suis locis insertas, adjunctis Latinis, Germanisque appellationibus ita ob oculos ponuntur, ut clarius tradi non possint. Etc.*, Basel, 1561, (ed. pr. Basel 1556).

— Agricola (1494-1555), mining-expert and metallurgist, bases his conception on observations and experimental values, which he arranges and classifies. He foreshadowed a new attitude towards the sciences and his work about mining and metallurgy was a standard work; it was well arranged and based on practice.

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8vo small, 2 vol. Vol. I: 8 pp. + 672 pp. + 24 pp. index; title vignette and a wood-cut, preceding p. 1. Vol. II: 570 pp. + 16 pp. index, 20 wood-cuts.

Table of contents of Vol. I:

*Praefatio*

- 1 *Propositiones seu maximae artis Chemicæ.*
- 2 *Turba Philosophorum* (2 versions, p. 1 and 71 respectively).
- 3 *Allegoriae in Turbam*, p. 152.
- 4 *Aenigmata ex Visione Arislei*, p. 159.
- 5 *Exercitationes in Turbam*, p. 168.
- 6 *Aurora Consurgens*, p. 201 (this is the 2nd part of the *Aurora Consurgens*).
- 7 *Rosinus ad Saratantam Episcopum*, p. 299.
- 8 *Rosinus ad Euthiciam*, p. 267 (no. 7 and 8 have been changed round in the table of contents of *Artis Auriferae*).
- 9 *Liber Definitionum eiusdem*, p. 340.
- 10 *Mariae Prophetissae practica*, p. 343.
- 11 *Liber Secretorum Calidis filii Iazichi*, p. 349.
- 12 *Liber Trium Verborum*, p. 377.
- 13 *Aristoteles de Lapide Philosophorum*, p. 387
- 14 *Avicenna de Conglutinatione lapidis*, p. 400.
- \**Cuiusdam Epistola, Quae Alexandri Macedonum Regis nomine circumfertur, interpretatio*, p. 409 (not mentioned in the table of contents).
- 15 *Ignotus author de Secretis lapidis*, p. 416.
- 16 *Merlini allegoria de arcano lapidis*, p. 420.
- 17 *Rachaidibi de Materia lapidis*, p. 425.
- 18 *Avicenna item de Alchimia*, p. 433.
- 19 *Semita Semitae*, p. 468.
- 20 *Clangor Buccinae*, p. 480.
- 21 *Correctio Fatuorum*, p. 582.
- 22 *Incertus author de arte Chimia*, p. 614.

Table of contents of vol. II:

*Praefatio*, p. 3.

- 1 *Liber de Compositione Alchemiae, quem edidit Morienus Romanus, Calid Regi Aegyptiorum: Quem Robertus Castrensis de Arabico in Latinum transtulit*, p. 7.

- 2 *Bernardi Trevirensis responsio ad Thomam de Bononia de Mineralibus, et Elixiris compositione, Roberti Vallensis Tabulis illustrata*, p. 59.
- 3 *Liber de arte Chimia incerti auctoris, nunquam hactenus in Lucem editus*, (this writing, however, does not occur in vol. II; perhaps it is identical with no. 22 of vol. I).
- 4 *Scala Philosophorum*, p. 115.
- 5 *Ludus Puerorum (et Opus Mulierum)*, p. 184.
- 6 *Rosarium Philosophorum (cum figuris)*, p. 220.
- 7 *Arnaldi Rosarium*, p. 419.  
*Arnaldi Novum Lumen*, p. 497.  
*Arnaldi Flos Florum ad Regem Aragonum*, p. 513.  
*Arnaldi Epistola super Alchimia ad Regem Neapolitanum*, p. 532.
- 8 *Rogerus Bacho Anglus de mirabili Potestate artis et naturae*, p. 538.

— The bipartite *Artis Auriferae* is one of the most important alchemical collective works. This publication of 1572 is the first edition; a new edition appeared in 1593 by edition Conrad Waldkirch's of Basel, richly decorated; an edition in 3 volumes appeared in 1610, also by Waldkirch's (for the contents of that third vol. see: Ferguson, I, 51). See also for *Artis Auriferae*, beside Ferguson, Thorndike, V, 625 and M. Maier, *Symbola Aureae Mensae*, 273-277. See for the separate writings from *Artis Auriferae* also Ferguson, vol. I and II, s.v.; Thorndike, vol. I-VIII; Sarton, vol. I-III. Further the following number of the table of contents of *Artis Auriferae* are separately arranged in alphabetic order in this bibliography.

From vol. I: nos 2, 3, 4, 5, 6, 7, 8, 13, 14, 15 under Rhazes (epistola), 16 and 20.

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The *Aurora Consurgens* was edited, translated and commented upon

by M. L. von Franz, *Aurora Consurgens, ein dem Thomas von Aquin zugeschriebenes Dokument der alchemistischen Gegensatzproblematik*, published as 3rd part of C. G. Jung's *Mysterium Coniunctionis, Untersuchung über die Trennung und Zusammensetzung der seelischen Gegensätze in der Alchemie*, Zürich 1957. On account of the sources used in the *Aurora Consurgens*, the said author supposes that the treatise was written between 1230 and 1450. In the manuscripts of the *Aurora Consurgens*, St Thomas Aquinas is mentioned as the author.

The text of this remarkable work is almost entirely built up out of bible quotations and well-known alchemical pronouncements, and is divided in 12 chapters, the first five of which form an introduction, in which the Sapientia Dei has a prominent place, followed by 7 parables, dedicated to the alchemical-mystical process, beginning with the putrefactio and ending with the transfiguration. The titles of the parables are as follows:

1st parable: de terranigra in quam septem planetae radicaverunt.

2nd parable: de diluvio aquarum et morte quam femina intulit et fugavit.

3rd parable: de porta aerea et vecte ferreo captivitatis Babylonicae.

4th parable: de fide philosophica quae numero ternario consistit.

5th parable: de domo thesauria quam sapientia fundavit supra petram.

6th parable: de coelo et mundo et sitibus elementorum.

7th parable: de confabulatione dilecti cum dilecta.

- \*AURORA CONSURGENS, (second part) printed in: *Art. Aurif.*, I, 201-266. Only the second part has been published in *Art. Aurif.*, and is preceded by a statement of the editor to the reader that the first part has been omitted, because the analogy between the alchemical transmutation process and the Passion and Death of Christ, as worked out in the first part of the *Aurora Consurgens*, is a profanation (*Art. Aurif.*, I, 190-200). It is a remarkable fact, however, that in the same *Art. Aurif.* the *Rosarium Philosophorum* is printed, which shows the same tendency, although less explicitly; moreover, the *Rosarium Philosophorum* even cites the first part of the *Aurora Consurgens* to which objection was taken.

- \*AUTHOR DE PERFECTO MAGISTERIO, see: Aristotle (Pseudo). wrongly ascribed to Aristotle. *De Congelatione etc.*, is printed, for instance in *Art. Aurif.*, I, 400-409. About 1200, this treatise was translated from Arabic into Latin by AUTUN (HONORIUS OF), *Speculum de Mysteriis Ecclesiae*, ed. Migne, P.L. vol. 172.

- \*AVICENNA, *De Congelatione et Conglutinatione Lapidum*, or: *Mineralia*, or: *De Mineralibus*, also identical with *Liber de Mineralibus Aristotelis*, wrongly ascribed to Aristotle. *De Congelatione* is printed in: *Art. Aurif.*, I, 400-409. About 1200, this treatise was translated from Arabic by Alfred of Sareshel and continued to have great influence in alchemical literature till after Maier. The writing appears to be partly a direct translation and partly a summary of chapters from Avicenna's *Kitāb al-shifā*. (See: J. Ruska, "Die Alchemie des Avicenna", *Isis*, no. 60, vol. XXI, I (1934), p. 18; see also Holmyard E. J. and Mandeville D.C.)  
— *Tractatulus de Alchimia*, printed in: *Art. Aurif.*, I, 433-467. This work is wrongly ascribed to Avicenna. The author quoted extracts

from Rhazes, *De Aluminibus et Salibus*, from Hortulanus, a mediæval commentator on the *Tabula Smaragdina*. (See Ruska, *Isis*, no. 60, vol. XXI, I (1934), p. 48).

— Avicenna is the Latin name of Abū 'Alī al-Ḥusain ibn 'Abdallāh ibn Sīnā. He was born in 980 at Afghana near Bukhārā, and died in 1037 at Hamadhān. He was an encyclopaedist, philosopher, physician, mathematician, astronomer; his philosophy reflects the Aristotelian tradition as affected by neoplatonic influences and Islamic theology. His medical encyclopaedia remained of great interest up to and into the 16th century.

Amongst his contemporaries, Avicenna's opinion about the convertibility of lead into gold was an exception: for he did not believe in the possibility of transmutation. Nevertheless, the alchemists in the Middle Ages revered Avicenna as one of them. The explanation of this is that Avicenna endorsed most of the current alchemical theories and, just as Jabir ibn Hayyan, started out from the sulphur-mercury theory concerning the composition of the metals. Later alchemists tried to obscure Avicenna's denial by writing that Avicenna would have reconsidered his negative view afterwards. The *De Congelatione et Conglutinatione Lapidum*, in which Avicenna's rejection occurs, continues to take an important place in alchemical literature just the same. (For a short quotation see the commentary on embl. xviii.)

Several passages in the discourse of the *Atalanta Fugiens*, in which Maier also expresses his doubt about the essential change of metals by alchemists, are founded on Avicenna's view (*Atalanta Fugiens*, parts of the discourse of emblem xviii and xl).

\*BARNAUD (NICOLAS), *Triga Chemica, de Lapide Philosophico Tractatus Tres etc.*, Leiden 1599. One of these treatises is Lambsprinck's *De Lapide Philosophico Libellus*.

\*BASILIUS VALENTINUS, see: Valentinus.

BEAUVAIS (VINCENTIUS OF), *De Alchimia et rebus metallicis ex Speculo Vincentii*, Basel 1571, by Petrus Perna's (alchemical parts from *Speculum doctrinale*; see Duveen, 601 and Ferguson I, 420).

\*BELINUS METAPHOR, included in the *Rosarium Philosophorum*, in: *Art. Aurif.*, II, 412-415.

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- BOLOS DEMOCRITOS, see Democritus (Pseudo).
- BOLTON, H. C., *The Follies of Science at the Court of Rudolph II*, Milwaukee, 1904.
- \*BONUS (PETRUS), *Margarita Pretiosa Novella Correctissima. Exhibens Introductionem in Artem Chemiae Integram: ante annos plus minus ducentos septuaginta composita, autore M. Petro Bono Lombardo Ferrariense, Physico et Chemico excellentissimo.*  
 Printed in: *Theatr. Chem.*, V, 507-713. The ed. pr. of the *Margarita* was printed by Aldus, Venice 1546, edited by Janus Lacinius. Other editions in abbreviated form from 1554 Nuremberg, 1572 Basel, 1608 Strasbourg.  
 In the exordium Petrus Bonus is mentioned as an author from the 14th century: "compositus 1330 anno in Civitate Polae, de Provincia Istriae." This time of origin is accepted as being right by Sarton, III, 750 sq.
- \*BOODT (ANSELMUS BOETIUS DE, 1552-1632), *Gemmarum et Lapidum Historia*, Antwerp 1636, ed. pr. 1609.  
 Anselmus de Boodt was a mineralogist and physician and was born at Bruges. According to Schmieder (*Gesch. der Alchemie*, 360), he was, like Maier, court-physician to Rudolph II. He was sceptical about alchemy and dealt with mineralogy in a scientific way (see J. E. Heller, "Anselmus Boëtius de Boodt als Mineral und Naturphilosoph", *Acheion*, XV, p. 348-368). In alchemical literature Anselmus Boodt is described as somebody who comes into the possession of the transmutation powder by accident, and on account of this is converted to the belief in the possibility of transmutation. Maier, who describes this legend (*Symbola Aureae Mensae*, 556) says that he borrows the story from N. Barnaud (Ferguson, 73-74); Anselmus de Boodt is supposed to have found a book in the library inherited from his father, in which, in a cavity in the parchment binding, the recipe for the preparation of the Philosophers' Stone was hidden. The recipe ended with the words: "that the recipe contains the truth is proved by the powder here included, to the quantity of 1 gram, half of which should be projected onto 3 ounces of mercury, by which it will be changed into gold".
- BOVAL, M., *Les Litanies de Lorette. Histoire, Symbolisme, richesses doctrinales*, Charleroi-Paris 1946.
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- \*BUCH VON DER HEILIGEN DREIFALTIGKEIT, Codex Germanicus, (1420), no. 598, Bayerische Staatsbibliothek, Munich.
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- CARON, M. and HUTIN, S., *Les alchimistes*, Paris 1959.
- CHRYSOPOEIA, an early Greek alchemical source, ascribed to Cleopatra (ms. of Saint Marc. Libr.) cf. fig. 65.
- \*CHRYSOPOEIA, see Augurellus.
- CHYMIA, (periodical), Annual Studies in the History of Chemistry, Philadelphia, University of Pennsylvania Press.
- CHYMISCHE HOCHZEIT, *Chymische Hochzeit Christiani Rosenkreutz Anno 1459*, Strasbourg 1616 (ed. Dokumente religiöser Erfahrung, Munich 1957).
- \*CLANGOR BUCCINAE, printed in: *Art. Aurif.*, I, 480-581, with the sub-title: *Tractatus mirabilis, simul et attentissimus, ex quadam vetustissima scriptura excerptus*. Ed. pr. printed in: *De Alchimia Opuscula Complura Veterum Philosophorum*, Frankfurt 1550.
- COLONNA (FRANCESCO), *Hypnerotomachia Polifili*, Venice 1499.
- \*CONFESSIO FRATERNITATIS, *Confessio Fraternalitatis, oder Bekandtnusz der löblichen Bruderschaft des hochgeehrten Rosenkreutz*, Kassel 1615.
- CONGER, G. P., *Theories of Macrocosm and Microcosm in the History of Philosophy*, New York, Columbia University Press 1922.
- \*CONSILIIUM CONIUGII, *Consilium Coniugii, seu de Massa Solis et Lunae, Libri Tres*. Printed in: *Theatr. Chem.*, V, 429-507. The ed. pr. appeared at Strasbourg in 1566, by Samuel Emmel's in a collective work of hermetic writings, under the title *Ars Chemica etc.* The sub-title of *Consilium Coniugii* states that the writing was originally conceived in Arabic. Berthelot dates the writing later than the *Turba Philosophorum*, but in the same tradition (Berthelot, *Introduction etc.*, 29, 57, 209, 210, 257, 304); Berthelot explains the word "massa" by comparing it with  $\mu\alpha\tilde{\xi}\alpha$  or Chemistry of Moses, mentioned by Zosimos. Rulandus (in his *Lexicon Alchimiae*, 1612), explains the word "massa" as follows: "Kuria vel Kymia, id est massa, heist dieselb Kunst, alchimia, alkymia". Rulandus probably adopts this meaning from the treatise *Liber Trium Verborum Kalid Regis Acutissimi*, which was written before the 14th century: "... Chimia autem Graecè, massa dicitur Latine", (Printed in: *Theatr. Chem.*, V. 186).
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- *Count Michael Maier, Doctor of Philosophy and of Medicine, Alchemist, Rosicrucian, Mystic, 1568-1622. Life and Writings*, Kirkwall, 1910.
- DARMSTAEDTER, E., *Die Alchemie des Geber, übersetzt und erklärt*, Berlin 1922.
- \*DEE (John 1527-1607), *Monas Hieroglyphica*, printed in: *Theatr. Chem.*, II, 192-215.
- Dee was astrologer, alchemist, magician and mathematician; he enjoyed the protection of Queen Elisabeth. He also worked at the Court of Rudolph II, but fell into disgrace there after some time and then returned to England. His son Arthur was an alchemist and court-physician to King Charles I.

DEMOCRITOS (PSEUDO), *Physica et Mystica*.

Edited and translated by M. Berthelot, *Coll. des Anc. Alch. Grecs*. The author of *Physica et Mystica* is Bolos Democritos of Mendes, about 200 B.C. In his work the "making" of gold, silver and precious stones is described; changes in the colour were considered by the author to be an indication that a real transmutation had taken place. See also M. Wellmann, "Die Physika des Bolos Demokritos", *Abhandlungen d. Preusz. Akad. d. Wissensch.*, 1929, Phil. hist. Kl., no. 7.

\*DE PERFECTO MAGISTERIO, see: Aristotle (Pseudo).

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\*DUENECH ALLEGORY, printed in: *Theatr. Chem.*, III, 756-757, together with some other short writings, under the title: *Processus Chemicus Aliquot*.

The Duenech allegory is a chemical king's allegory, spun around the word Duenech. Although I was not able to trace the time of origin of the allegory, the word duenech and the contents of the allegory point to an old tradition. As can be seen from an Arabic-Latin lexicon occurring in a manuscript from the 13th century (Bibl. Nat. ms. lat. 6514), Dueneg or duenez, duenum, or duenec is the Arabic word for vitriol, which was used in painting processes, the making of metal alloys and as solvent for metals; (see Berthelot, *La Chimie au Moyen Age*, I, 217, recipe 158).

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\*EXERCITATIONES IN TURBAM, printed in: *Art. Aurif.*, I, 169-198. These are 15 texts ascribed to one or more speakers from the *Turba Philosophorum*. The *Exercitationes*, however, are of a later date, as Geber and de Villanova are mentioned (*Art. Aurif.*, I, 176). So in fact the *Exercitationes in Turbam* are not connected with the *Turba Philosophorum*.

\*FAMA FRATERNITATIS, *Fama Fraternitatis, oder Entdeckung der Bruderschaft, des hochlöblichen Ordens des Rosenkreutz*, Kassel 1614.

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FESTUGIÈRE, A. J., *La révélation d'Hermès Trismégiste*, Paris 1950-1954, 4 vol.

FICINUS (MARSILIUS), *De Vita Coelitus Comparanda*, Venice 1516.

FIGUIER, L., *L'Alchimie et les Alchimistes*, Paris 1856.

\*FLUDD, R., (ROBERTUS DE FLUCTIBUS), *Utriusque Cosmi Maioris scilicet et Minoris Metaphysica, Physica, Atque Technica Historia*, Oppenheim

1617, unfinished, only the first two parts about the Macrocosm appeared. The plan of the whole can be seen from the description of it in the first part, *Historia Technica*. See H. W. Janson, "Apes and Ape Lore", *Studies of the Warburg Institute*, XX, London 1952, p. 305; see also J. B. Craven's book about Fludd.

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- \*GEBER, *Liber De Fornacis Construendis*, printed in: *Alchemia*, Nuremberg 1541, liber I, 229. Not known in manuscript.  
 — *Liber De Inventione Veritatis Seu Perfectionis Metallorum*, printed in: *Alchemia*, Nuremberg 1541, Liber I, 206. Not known in manuscript.  
 — *Liber De Investigatione Perfectionis Metallorum*, printed in *Alchemia*, Nuremberg 1541, liber I, 1. The earliest known manuscript dates from the 13th century (cod. Riccardianus 933, Florence).  
 — *Summa Perfectionis* (or *Summae perfectionis metallorum sive perfecti magisterii*); This is one of the most important alchemical books from the Middle Ages. The earliest known manuscript dates from the end of the 13th century. Just as the other Geber writings mentioned, printed in: *Alchemia*, II, 20. The first edition of the Geber writings appeared about 1481, or even 1475. A new edition of Geber's work, with an introduction by E. J. Holmyard, appeared in London and Toronto 1928.  
 — *Testamentum Geberis*, printed in J. J. Manget, *Bibliotheca Chemica Curiosa*, 1702, I, p. 562.  
 — Geber is a prominent figure in the history of alchemy in the Middle Ages. He was supposed to be identical with the Arab alchemist Jābir ibn Hayyān. Maier also thought so (*Symbola Aureae Mensae*, 201): "Geber Abenhaen. . . . philosophus fuit Arabs seu Maurus admirabilis ingenii et doctrinae". Geber's writings are inspired by Arabic alchemy, but they are not identical with those of Jābir ibn Hayyān and no Arabic texts are known of Geber's writing (see: Sarton I., 532-533 and II, part II, 1043-1045 for bibliography; see also P. Kraus and E. Darmstaedter).
- GEHEIME FIGUREN, *Geheime Figuren der Rosenkreutzer aus dem XVIIe und XVIIe Jahrhundert (anoniem aus einem alten Manuscript zum ersten Mal ans Licht gestellt)*, Altona 1785-1788, 2 vol.
- GESSMANN, G. W., *Die Geheimsymbole der Alchymie, Arzneikunde, und*

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- GINDELY, R., *Rudolph II und seine Zeit*, Prague 1863 and 1865, 2 vol.
- GLENDENNING, L., *A source book of medical history*, New York 1942.
- \*GLORIA MUNDI, printed in: *Musaeum Hermeticum*, 1678, 203-304. Date of origin not known. There probably exists a connection to a treatise from the 15th century, ascribed to a certain Wymandus de Ruffo Cliepo, (Thorndike, III, 68-69). Both writings have the same title, approximately the same exordium: "lapis noster", and the same trend. In both writings stress is laid upon the mystical relation between Christ and the Lapis Philosophorum (a specimen of this manuscript from the 15th century in Wolfenbüttel, 3107, folio 311-42).
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- GOLDSCHMIDT, G., *Catalogue des Manuscrits Alchimiques Grecs d'Allemagne, d'Autriche, de Danemark, de Hollande, et de Suisse*, Brussels 1932.
- \*GRATAROLO (GUGLIELMO), *Verae Alchemiae Artis Metallicae, citra Aenigmata, Doctrina, certusque modus, scriptis tum novis tum veteribus nunc primum et fideliter maiori ex parte editis, comprehensus etc.*, Basel 1561.
- \*GRATIANUS, Gratianus, the alchemist, is cited in the *Rosarium Philosophorum*, and is quoted therefrom by Maier. Thorndike (III, 45) thinks it possible that the alchemist Gratianus lived before the 13th century.
- GREGORY, J. G., *Combustion from Heracleitos to Lavoisier*, London 1934.
- \*GREVERUS (JODOCUS), *Secretum Nobilissimum et Verissimum*, Leiden 1588, by Jost Balbian's; also printed in: *Theatr. Chem.*, III, 699-721. Greverus calls himself a Presbyterian, but further data about him are not known. M. Maier (*Symbola Aureae Mensae*, 268 sq) speaks of Greverus and his work with appreciation.
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— "Raimundus Lullius", *ditto*, vol. XXIX (1882).
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- \*HERMES TRISMEGISTUS, *Tabula Smaragdina*, printed in: *Theatr. Chem.*, I, 362. The *Tabula Smaragdina* was ascribed to the legendary Hermes Trismegistus or to Thot, the god of mathematics and natural sciences. The oldest manuscript handed down is written in Arabic and was discovered by E. J. Holmyard between manuscripts of the Arab alchemist Jābir ibn Hayyān. See J. Ruska, *Tabula Smaragdina*, Heidelberg 1926.
- *Tractatus vere Aureus de Lapidis Physici Secreto in Cap. 7 divisus; Nunc vero a quodam Anonymo Scholiis illustratus*. Printed in: *Theatr. Chem.*, IV, 587-705.
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- *Histoire de la chimie*, Paris 1869, 2 vol. 2nd ed.
- \*HOLLANDUS (ISAAC), *Opera Mineralia, sive de Lapide Philosophico Omnia*, printed in: *Theatr. Chem.*, III, 304.
- Most authors mention two names Hollandus, father and son. (Maier also mentions both of them in: *Symb. Aureae Mensae*, p. 263-264). Schmieder, *Geschichte der Alchemie*, p. 210, dates them at the beginning of the 15th century, and assumes that the son, Johann Isaac, was a medical practitioner; this in connection with his description of the medical application of the philosophical tinctura in his "*Opus Saturni*", part of *Opera Vegetabilia* Amsterdam 1659. They were clever in imitating precious stones. Boerhaave commented upon the work ascribed to them. (*Methodus Studii Medici*, 1751, I, p. 142).
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- HORAPOLLO, *Hori Apollinis Selecta Hieroglyphica, sive Sacrae Notae Aegyptiorum, et Insculptae Imagines*, Rome 1957. (see: Boas).
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- JABIR IBN HAYYAN, see: Geber; literature, see: P. Kraus.
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 — "Michael Maier's Atalanta Fugiens; commentaar op embleem XLVIII", *Nederlands Kunsthistorisch Jaarboek*, Jubileumuitgave voor Prof. Dr. W. S. Heckscher, 15 (1964), p. 149-173; also (with the addition of some pages) in *Janus*, 52 (1965), 2, p. 81-112.  
 — "Atalanta Fugiens hoc est Emblemata nova de secretis naturae chymica Authore Michael Majero, Faksimile-Druck der Oppenheimer Originalausgabe von 1618 mit 52 Stichen von Matthaeus Merian d.Ä., herausgegeben von Lucas Heinrich Wüthrich, Kassel und Basel, Bärenreiter-Verlag, 1964", review in *The Art Bulletin*, XLVII (1965), 1, p. 143-144.
- JONSON (BEN, 1573-1637), *The Alchemist*, London 1610.
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 Maier discusses Lambsprinck in *Symbola Aureae Mensae*, p. 272, and considers Lambsprinck to be the name of a noble family. Schmieder, *Geschichte der Alchemie*, p. 229, connects the name with the Benedictine abbey Lambspring near Hildesheim, and infers from that that Lambsprinck was a Benedictine monk. According to Kopp, *Die Alchemie*, p. 311 and 318, the treatise dates from the first half of the 15th century.
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- \*LULLIUS (RAIMUNDUS 1235-1315), *Liber, qui Codicillus, seu vade mecum inscribitur, in quo fontes Alchimicae artis et reconditoris philosophiae traduntur, ante hac nunquam impressus*, Cologne at Arnold Birckmann's heirs, 1563.
- *Testamentum*; consisting of: *Theoria* and *Practica*.  
Printed in: *Theatr. Chem.*, IV, 1-134 (*Theoria*) and 135-170 (*Practica*); earlier edition of the *Testamentum*, Cologne 1566.
- Lullius devoted himself to the conversion of the Saracens and died a martyr for Christianity. He wrote much in the field of philosophy, medicine and natural sciences. The great number of alchemical writings in the name of Lullius, however, are not written by him; he even denied the possibility of the transmutation of metals. The alchemical writings ascribed to him were mentioned in the same breath as those of Arn. of Villanova, and enjoyed great authority in alchemical circles. The works ascribed to Lullius are possibly partly by the hand of a converted Jew, Raimundo de Tarrega (d. 1371).
- \*MAGNUS (ALBERTUS), *Liber Octo Capitulorum*, printed in: *Theatr. Chem.*, IV, 841-862.  
The real author is not known.
- MAIER, A., *Zwei Grundprobleme der scholastischen Naturphilosophie*, Rome 1951.
- MAIER (MICHAEL), *Arcana Arcanissima hoc est Hieroglyphica Aegyptio-Graeca, Vulgo necdum cognita, ad demonstrandam falsorum apud antiquos deorum, deorum, heroum, animantium et institutorum pro sacris receptorum, originem, ex uno Aegyptiorum artificio, quod aureum animi et Corporis medicamentum peregit, deductam, unde tot poetarum allegoriae, scriptorum narrationes fabulosae et per totam Encyclopaediam errores sparsi clarissima veritatis luce manifestantur, suaeque tribui singula restituuntur, sex libris exposita*.  
s.l.e.d., probably London 1614; 4°, frontispiece, dedication page with engraving, 4 leaves, 285 pp., 7 leaves; it is Maier's first publication and it is dedicated to Sir William Paddy, Chairman of the London college of physicians.
- *De Circulo Physico Quadrato: Hoc est, Auro, Eiusque Virtute Medicinali, sub duro cortice instar nuclei latente; An et qualis inde petenda sit, Tractatus haud inutilis: Authore Michaelae Majero Com. P. Med. D. Eq. exem. etc. Oppenheimii, Typis Hieronymi Galleri, Sumptibus Lucae Jennis, 1616*.  
4°, 79 pp., on the title-page a circle with inscribed square with the four elements. The book is dedicated to Moritz, Landgrave of Hesse etc.,
- *Echo Fraternalitatis Roseae Crucis*, ascribed to Maier according to Ferguson, II, 66, Danzig 1616.
- *Lusus Serius, quo Hermes sive Mercurius Rex Mundanorum Omnium sub Homine existentium, post longam disceptationem in Concilio Octovirali habitam, homine rationali arbitro, judicatus et constitutus est. Authore Michaelae Majero Com. Pal. Med. D. Horat. Omne tulit punctum, qui miscuit utile dulci. Oppenheimii Ex Chalcographia Hieronymi Galleri, Sumptibus Lucae Jennis Bibliop. 1616*.  
4°, 79 pp. with vignette. Among other editions are those of Frankfurt

1615? and 1625, and an English translation by J. de la Salle, *Lusus Serius, or Serious Passe-time*, London 1654.

- *Atalanta Fugiens, hoc est, Emblemata Nova de Secretis Naturae Chymica, Accommodata partim oculis et intellectui, figuris cupro incisis, adjectisque sententiis, Epigrammatis et notis, partim auribus et recreationi animi plus minus 50 Fugis Musicalibus trium Vocum, quarum duae ad unam simplicem melodiam distichis canendis peraptam, correspondeant, non absque singulari jucunditate videnda, legenda, meditanda, intelligenda, dijudicanda, canenda et audienda; Authore Michaelae Majero Imperial. Consistorii Comite, Med. D. Eq. ex. etc. Oppenheimii Ex typographia Hieronymi Galleri, Sumptibus Joh. Theodori de Bry, 1618.*

ed. pr. 1617; 4°, 211 pp., title with marginal engraving, portrait of Maier, 50 emblematic copper plates by M. Merian (1593-1651), each emblem consisting of a motto, epigram and 2 pp. elucidation; each emblem is set to music. Re-edition in 1687 under the title *Secretioris Naturae Secretorum Scrutinium Chymicum*; in 1708 under the title *Chymisches Cabinet*.

- *Examen Fucorum Pseudo-Chymicorum Dectorum et in Gratiam Veritatis Amantium succincte refutatorum. Authore Michaelae Maiero, Com. Pal. Eq. Ex. Med. D. Francofurti Typis Nicolai Hoffmanni, sumptibus Theodori de Bry, Anno 1617.*

4°, 47 pp., engraved title-page.

- *Jocus Severus, hoc est, Tribunal Aequum, quo Noctua Regina Avium, Phoenice Arbitro post varias Disceptationes et Querelas Volucrum eam infestantium pronuntiatur, et ob sapientiam singularem, Palladi sacrata agnoscitur. Francofurti Typis Nicolai Hoffmanni, sumptibus Theodori de Bry, Anno 1617. 4°, 76 pp. with title-vignette, 1617 ed. pr.*

- *Silentium post Clamores, hoc est, Tractatus Apologeticus, quo causae non solum clamorum seu Revelationum Fraternalitatis Germanicae de R.C. sed et Silentii, seu non redditae ad singulorum vota responsionis, una cum malevolorum refutatione, traduntur et demonstrantur, scriptus Authore Michaelae Maiero Imperialis Consistorii Comite, Eq. Ex. Phil. et Med. D. Francofurti Apud Lucam Iennis 1617.*

8°, 142 pp., vignette. In 1617 *Silentium post Clamores* was published in German, also at Frankfurt. In 1622 second edition in Latin at Frankfurt; in 1624 the third edition, together with a reprint of *Themis Aurea*.

- *Symbola Aureae Mensae Duodecim Nationum. Hoc est, Hermaea seu Mercurii Festa ab Heroibus duodenis selectis, artis Chymicae usu, sapientia et autoritate Paribus celebrata, ad Pyrgopolynicen seu Adversarium illum tot annis iactabundum, virgini Chemiae Iniuriam argumentis tam vitiosis, quam convitiis argutis inferentem, confundendum et exarmandum, Artifices vero optime de ea meritis suo honori et famae restituendum, Ubi et artis continuatio et veritas invicta 36 rationibus, et experientia librisque authorum plus quam trecentis demonstratur, Opus, ut Chemiae, sic omnibus aliis Antiquitatis et rerum scitu dignissimarum percupidis, utliissimum, 12 libris explicatum et traditum, figuris cupro incisis passim adiectis, Authore Michaelae Maiero Comite Imperialis Consistorii, Nobili, Exempto, Med. Doct. P.C. olim Aulico Caes. Francofurti Typis Antonij, Humij, impensis Lucae Iennis 1617.*

4°, pp. (20), 621, 43 index; the same portrait of Maier as in the *Atalanta Fugiens*; further 12 alchemical emblems, in which, moreover, the

figures occur depicted in portrait medallions on the title-page; they represent the most important alchemists of 12 different countries. According to the inscriptions, they are: Hermes Aegyptius, Maria Hebraea, Democritus Graecus, Morienus Romanus, Avicenna Arabs, Albertus Magnus Germanus, Arnoldus Villanova Gallus, Thomas Aquinas Italus, Raymundus Lullius Hispanus, Rocherius Bacon Anglus, Melchior Cibirensis Ungarus and, Anonymus Sarmata (probably this Anonymus is the Pole Sendivogius). The engravings are by M. Merian, like those in the *Atalanta Fugiens*.

- *Viatorium, hoc est, De Montibus Planetarum septem seu Metallorum; Tractatus tam utilis, quam perspicuus, quo, ut Indice Mercuriali in triviis, vel Ariadneo filo in Labyrintho, seu Cynosura in Oceano Chymicorum errorum immenso, quilibet rationalis, veritatis amans, ad illum, qui in montibus sese abdidit De Rubea-petra Alexicacum, omnibus Medicis desideratum, investigandum, uti poterit. Oppenheimii Ex typographia Hieronymi Galleri. Sumptibus Joh. Theodori de Bry, 1618.* 4°, 138 pp., engraved title-page (Maier's portrait and personified planet signs), 7 engravings in the text; re-edition: Rouen 1651. As appears from the mention of *Viatorium etc.* in the preface of Maier's *Examen Fucorum etc.*, which appeared in 1617, the edition of 1618 of the *Viatorium* cannot be a first edition.
- *Themis Aurea, Das ist Von den Gesetzen und Ordnungen der löblichen Fraternitet R.C. Ein ausführlicher Tractat und Bericht Darinnen gründlichen erwiesen wird dasz dieselbige Gesetz nicht allein in Wahrheit beständig sondern auch an sich selbst dem Gemeinen und Privat Nutzen nohtwendig nützlich und ersprieszlich seynd. Beschrieben durch Michaelem Maierum, Imp. Cons. Com. Eq. Ex. der Philosophi und Medicin Doctorn. Jetzund ins Teutsch übersetzt durch R.M.F. Getruckt zu Franckfurt bey Nicolao Hoffmann in Verlegung Lucae Iennis 1618.* 8°, 242 pp. The ed. pr. in Latin, Frankfurt 1618; 2nd Latin edition, Frankfurt 1624; English edition, London 1656.
- *Tripus Aureus, hoc est, Tres Tractatus Chymici Selectissimi, nempe I. Basilii Valentini, Benedictini Ordinis monachi, Germani, Practica una cum 12 clavibus et appendice, ex Germanico; II. Thomae Nortoni, Angli Philosophi Crede Mihi seu Ordinale, ante annos 140 ab authore scriptum, nunc ex Anglicano manuscripto in Latinum translatum, phrasi cuiusque authoris ut et sententia retenta; III. Cremeri cuiusdam Abbatis Westmonasteriensis Angli Testamentum, hactenus nondum publicatum, nunc in diversarum nationum gratiam editi, et figuris cupro affabre incisis ornati opera et studio Michaelis Maieri Phil. et Med. D. Com. P. etc. Francofurti Ex Chalcographia Pauli Jacobi, impensis Lucae Iennis, Anno 1618.* 4°, 196 pp., picture on the title-page, Maier's portrait and 19 engravings. Reprint of *Tripus Aureus*, Frankfurt 1677.
- *Tractatus De Volucris Arborea, absque Patre et Matre, in Insulis Orcadum, forma Anserculorum proveniente; seu De Ortu Miraculoso potius, quam naturali Vegetabilium, animalium, hominum et supernaturalium quorundam; Quo causae illius et horum inquiruntur, et demonstrantur . . . Francofurti, Typis Nicolai Hoffmanni, sumptibus Lucae Iennis, 1619, 8°, 180 pp.; ed. pr. 1619.*

- *Verum inventum, hoc est, munera Germaniae, ab ipsa primitus reperta, et toto urbi communicata, etc.* . . . Francofurti 1619. 8°, abt. 250 pp.
- *Septimana Philosophica, Qua Aenigmata Aureola De Omni Naturae Genere a Salomone Israëlitarum sapientissimo Rege, et Arabiae Regina Saba, nec non Hyramo, Tyri Principe, sibi invicem in modum Colloquii proponuntur et enodantur. Ubi passim novae, at verae, cum ratione et experientia convenientes, rerum naturalium causae exponuntur et demonstrantur, figuris cupro incisis singulis diebus adiectis. Authore Michaelae Maiero, Imperialis Consistorii Comite, Eq. Ex. Med. D. et Caes. Maiest. olim Aulico, nunc illustriss. Principis ac Dn. Maurittii, Hassiae Landgravii, etc. Archiatro. Francofurti Typis Hartmanni Palthenii Sumptibus Lucae Jennis 1620. 4°, 36 pp.; 228 pp., index 52 pp. Frontispiece with engraved margin, portrait of Maier covering the whole page.*
- *Civitas corporis humani a tyrannide arthritica vindicata, hoc est podagrae, chiragrae et sanagrae method. curatio*, Frankfurt 1621, 8°, 216 pp.
- *Tractatus Posthumus, sive Ulysses; hoc est: Sapientia seu Intelligentia, tanquam Coelestis Scintilla beatitudinis, quod si in fortunae et corporis bonis naufragium faciat, ad portum meditationis et patientiae remigio feliciter se expediat. Una cum annexis tractatibus de Fraternitate Roseae Crucis. Francofurti, Apud Lucam Jennisium 1624. 8°, 274 pp. In this volume also reprint of *Themis Aureae* and *Silentium Post Clamores*, (*Tractatus Posthumus*, on p. 1-41).*
- *Comitia philosophica oder philosophischer Reichstag, von der wahren Materie des Steins der Weisen*, Salzburg 1665 (not seen by the author, mentioned in Kopp, *Die Alchemie*, II, p. 325).
- *Subtilis Allegoria super Secreta Chymiae Perspicuae Utilitatis et Iucundae meditationis Michaelis Maeieri*, printed in: *Musaeum Hermeticum*, Frankfurt 1678, p. 701-740.
- *Secretioris Naturae Secretorum Scrutinium Chymicum, per oculis et intellectui accurate accommodata, figuris cupro appolissime incisa, ingeniosissima Emblemata, hisque confines, et ad rem egregie facientes sententias, Doctissimaque item Epigrammata, illustratum. Opusculum ingeniis altioribus, et ad majora natis, ob momenta in eo subtilia, augusta, sancta, rara, et alioqui nimium quantum abstrusa, quam maxime expetitum, desideratum; Iterata vice amplissimae Reipublicae Chymicae Bono et Emolumento, non sine singulari jucunditate legendum, meditandum, intelligendum, dijudicandum, depromptum. Francofurti, Impensis Georgii Henrici Oehrlingii, Bibliopolae, Typo Johannis Philippi Andreae 1687.*  
This is a reprint of the *Atalanta Fugiens* under a modified title; the engraved frontispiece, Maier's portrait, the "Epigramma Authoris", the "Epistola Dedicatoria" and the staff-notation are missing here. In 1708 *Scrutinium Chymicum* appeared in a German translation, under the title *Chymisches Cabinet*, Frankfurt, by G. H. Oehrling.
- *Cantilenae Intellectuales De Phoenice Redivivo; ou Chansons Intellectuelles sur la Résurrection du Phénix, par Michael Maier, traduit en François sur l'Original Latin par M.L.L.M.A. Paris, chez Debure l'ainé. 1758. 12°, 129 pp. The ed. pr. probably appeared in Rome in 1622; 1623 ed. Rostock.*

- MÂLE, E., *L'Art religieux après le Concile de Trente*, Paris 1932, vol. IV.
- MANGET (JEAN JACQUES), *Bibliotheca Chemica Curiosa, seu Rerum ad Alchেমiam pertinentium Thesaurus Instructissimus etc.* Cologne 1702, vol. I and Geneva 1702, vol. II. Beside the *Theatrum Chemicum*, the work of Manget is the most extensive alchemical collective work.
- \*MARGARITA PRETIOSA NOVELLA, see Bonus (Petrus).
- MATHERS (S. L. MAC GREGOR), *Kabbalah Denudata, The Kabbalah unveiled*, London 1951.
- \*MENNENS (GUILIELMUS), *Aureae Velleris Libri Tres*, printed in: *Theatr. Chem.*, V, 240-428. The ed. pr. of *Aureum Vellus* appeared in Antwerp 1604 at Gasp. Bellerus. The writing deals with the connection between alchemy, the story of the Golden Fleece of Jason and the Fleece of Gideon. In the 16th and 17th centuries various writings under the title "aureum vellus" appeared in connection with the old alchemical legend, that the secrets of alchemy were been written on the Fleece of Jason. (An enumeration of the writings under the title *Aureum Vellus* in Kopp, *Die Alchemie*, I, 242-244).
- Mennens was born at Antwerp and also died there (1525-1608). He studied medicine, theology and alchemy.
- \*MERLINI-ALLEGORY, *Merlini-Allegoria, Profundissimum Philosophici Lapidis Arcanum perfecte continens*, printed in: *Art. Aurif.*, I, 420-424. Under the title "*Reductio Mercurii in Primam Materiam*", incipit: "Ad reducendum azot ad sui materiam primam ita est producendum. Capiatur aqua fortis dissolvens . . .", the *Merlini allegory* occurs in a manuscript from the 14th-15th century, Paris, Bibl. Nat., ms. lat. 14005, fol. 100 r-v, 101. (Bidez-Cumont, *Catal. des Manusc. Alch. Lat.*, Brussels 1939, no. 52 et passim).
- MICHELSPACHER, S., *Cabala Spiegel der Kunst und Natur*, Augsburg 1616, with 4 prints.
- MIGNE, *Patrologiae completus, series graeca* (P.G.).  
— *Patrologiae cursus completus, series latina* (P.L.).
- MOLSDORF, W. *Christliche Symbolik der Mittelalterlichen Kunst*, Leipzig 1926.
- \*MORIENUS, *Liber de Compositione Alchemiae, quem edidit Morienus Romanus, Calid Regi Aegyptiorum: Quem Robertus Castrensis de Arabico in Latinum transtulit*. Printed in: *Art. Aurif.*, II, 7-58 (other title: *De Transmutatione Metallorum*).
- About this book is known when and by whom it was translated from Arabic into Latin; on the 11th of February 1144 the translation was completed by Robert of Chester. This is the earliest known date of the translation of an alchemical treatise from Arabic into Latin. The authorship of the Arabic original of the Umayyad prince Khālid ibn Yazīd (d. 704 or 708) is legendary and also the said Morienus is a legendary figure (Maier, *Symbola Aureae Mensae*, 141 sq considered Morienus to be a historical figure, a Christian hermit, alchemist and teacher of Khālid ibn Yazīd, as is mentioned in the *Liber de Compositione Alchemiae*).

Robert of Chester was an Englishman, who lived in Spain from 1141 till 1150 and took part in the translation activities in Spain, as a consequence of which, Arabic knowledge penetrated into the Latin world. He translated the Koran and after that the *Liber de Compositione Alchemiae* (see Thorndike, II, 83 and II, 241-217).

Khālid ibn Yazīd, who is called "Calid, Rex Aegyptiorum" in the title of the *Liber de Compositione Alchemiae*, was supposed, as an Umayyad prince, to have encouraged Greek philosophers in Egypt to translate Greek works into Arabic. He himself is supposed to have been interested in medicine, astrology and alchemy. Although there is no proof of Khālid's scientific activities, legend connected more and more alchemical works with him, including the *Liber de Compositione Alchemiae* and the legendary Morienus there mentioned.

MURR, C. G. VON, *Über den wahren Ursprung des Rosenkreuzer—und des Freimaurerordens*, Sulzbach 1803.

MUSAEUM HERMETICUM, *Musaeum Hermeticum Reformatum et Amplificatum; Omnes Sopho-Spagyricae Artis Discipulos fidelissime erudiens, quo pacto Summa illa veraque Lapidis Philosophici Medicina, qua res omnes quaecumque defectum patientes, instaurantur, inveniri et haberi queat, etc.*, Frankfurt 1678, by Hermann van Sande's; ed. pr. Frankfurt 1625.

NETTESHEIM (HEINRICH CORNELIUS AGRIPPA VAN), *De Incertitudine et Vanitate Scientiarum*, Antwerp 1530.

— *De Occulta Philosophia Libri Tres*, ("Nihil est opertum quod non reveletur, et occultum quod non sciatur", *Matthaeus X*, 26), ed. pr. of all the three books Cologne 1533, by Johannes Soter's.

— Agrippa of Nettesheim (1486-1536), was a philosopher, magician, soldier, physician, astrologer and alchemist. He taught hermetic philosophy at Pavia in 1515. Without being trained as one, he became a physician at Freiburg in 1520 and practised secret sciences in the meantime. He continually made troubles for himself by his magic practices and his excentricity. In 1524 he became court physician to Louisa of Savoy, the mother of Francis I, but he soon fell into disgrace. He left for Flanders, edited the first part of his *Occulta Philosophia* in 1531 and after that started for Cologne, because he had got himself involved in Antwerp in the defence of a quack against the Antwerp physicians, whom he called jealous pigs, and on the occasion of which he defended his empirical medicine against their rational, scholastic medicine. He ended his life in deep poverty. (A. Prost, *Corneille Agrippa, sa vie et ses oeuvres*, Paris 1881, 1882, 2 vol.; Thorndike, Vol. V, p. 127-138).

NEUGEBAUER, O. and HOESEN, H. B. VAN, *Greek Horoscopes*, Philadelphia 1959.

NILSSON, M. P., *Geschichte der griechischen Religion*, (band II, *Die Hellenistische und Römische Zeit*, p. 465-497), Munich, 1961.

NOCK, A. D. and FESTUGIÈRE, A. J., *Corpus Hermeticum*, Paris 1945-1954, 4 vol., (Coll. des Universités de France, publiées sous le patronage de l'Association Guillaume Budé).

- \*NOVOBRIGENSIS (GUILIELMUS ANGLICUS), this is John of Newburgh, English historian, canon and later prior of Newburgh, bishop of Carlisle; he died in the first half of the 13th century, (Sarton, vol. II, part I, p. 456-457).
- \*OPUS MULIERUM ET LUDUS PUERORUM, This writing is printed in: *Art. Aurif.*, II, 184-219; the edition in *De Alchimia Opuscula Complura Veterum Philosophorum*, Frankfurt 1550 states that the writing dates from the time of Emperor Charles IV (1316-1379). In manuscript *Opus Mulierum etc.* has been known since the 15th century (Bologna, Univ. Libr. ms 303 (500), f. 224 r-225 v.). The title *Opus Mulierum et Ludus Puerorum* goes back to a pronouncement from the *Turba Philosophorum* (sententia XVII, in: *Art. Aurif.*, I, 92): "After the elucidation about the white lead nothing else follows but Women's work and Child's play".
- OSIRIS, (periodical), *Commentationes de scientiarum et eruditionis historia rationeque*, Bruges, ed. by G. Sarton.
- PAGEL, W., *An Introduction to Philosophical Medicine in the Era of the Renaissance*, Basel-New York 1958.
- "Paracelsus and the Neoplatonic and gnostic tradition", *Ambix*, VIII, (1960), 3, p. 125-166.
- *Das medizinische Weltbild des Paracelsus; seine Zusammenhänge mit Neuplatonismus und Gnosis*, Wiesbaden 1962.
- \*PANDORA, *Pandora: Das ist, Die edelste Gab Gottes, oder der Werde und Heilsame Stein der Weisen, mit welchem die alten Philosophi, auch Theophrastus Paracelsus, die unvollkommene Metallen, durch gewalt des Feurs verbessert: sampt allerley schädliche und unheilsame Kranckheiten, innerlich und eusserlich haben vertrieben etc.*, ed. pr. Basel 1582, by Samuel Apiario's, ed. by H. Reusner, provided with wood-cuts. Text and pictures are based on older alchemical writings.
- PANOFSKY, E., *Hercules am Scheidewege*, Leipzig-Berlin 1930.
- PARTINGTON, J. R., *Origins and Development of Applied Sciences*, London 1935.
- PAULY-WISSOWA, *Real-Encyclopädie der Classischen Altertumswissenschaft*, Stuttgart.
- PAVANELLO, G., *Un maestro del quattrocento, Giovanni Aurelio Augurello*, Venice, 1905.
- PERNETY, A. J., *Dictionnaire Mytho-Hermétique, dans lequel on trouve les Allégories Fabuleuses des Poetes, les Métaphores, les Enigmes et les Termes barbares des Philosophes Hermétiques expliqués. Par Dom Antoine-Joseph Pernety, Religieux Bénédictin de la Congrégation de Saint Maur*, Paris 1778 (see for other alchemical lexicons M. Rulandus and G. Testi).
- *Les Fables égyptiennes et grecques dévoilées*, Paris and Berlin 1758; reprint 1786 and 1795. Nearly one and a half centuries after M. Maier's *Arcana Arcanissima*, this work is a similar attempt to explain Egyptian and classical mythology as being an obscured form in which the secret of the Philosopher's Stone was preserved for later generations.
- Pernety (1716-1800) belonged to the Black Friars, devoted himself

to the study of the cabbala and occult sciences and was librarian to Frederick the Great in Berlin for a considerable time (literature about Pernety in: Ferguson, II, 182-183).

PEUCKERT, W. E., *Die Rosenkreutzer, zur Geschichte einer Reformation*, Jena 1928.

— *Pansophie*, Stuttgart 1936.

PHYSICA ET MYSTICA, see: Democritos (Pseudo).

\*PICO DELLA MIRANDOLA (GIOVANNI), *Opus Aureum de Auro*, printed in: *Theatr. Chem.*, II, 312-377.

PLESSNER, M., "The Place of the Turba Philosophorum in the Development of Alchemy", *Isis*, 142, vol. XLV (1954), 4, p. 331-338; (see also Ruska and *Turba Philosophorum*).

PRAZ, M., *Studies in Seventeenth Century Imagery*, London 1947, 2 vol.; Rome 1964, 1 vol.

\*PROCESSUS CHEMICI ALIQUOT, printed in: *Theatr. Chem.*, III, 755-764; one of them is the *Duenech allegory*, see s.v.

PROST, A., *Corneille Agrippa, sa vie et ses oeuvres*, Paris 1881-1882, 2 vol.

RAHNER, H., *Griechische Mythen in christlicher Deutung*, Zürich 1945.

READ, J., *Prelude to Chemistry*, London 1936.

— *The Alchemist in Life, Literature and Art*, London 1947.

RÉAU, L., *Dictionnaire d'art et d'archéologie*, Paris 1930.

REITZENSTEIN, R., "Zur Geschichte der Alchemie und des Mystizismus", *Gött. Gelehrt. Anz.*, 1919, p. 1-27.

— "*Das iranische Erlösungsmysterium*", *Religionsgeschichtliche Untersuchungen*, Bonn 1921.

\*REUSNER (HIERONYMUS), see: Pandora.

\*RHazes, *Epistola*.

— Beside Rhazes, this short treatise is also ascribed to Arn. of Villanova, as can be seen from a manuscript from 1477, in which practically the same text stands in the name of Villanova (Bologna, Univ. Libr., 138 (104), fol. 126 r-129 r; mentioned in Thorndike, III, 660-661).

Maier considers Rhazes as being the author of *Epistola* (in *Symbola Aureae Mensae*, 211) and as the opening words of it he gives: "Exemplum scientiae nostrae, senex supra montem". As can be seen from these words, the said *Epistola* is the *Authoris Ignoti, Philosophici Lapidis Secreta metaphorice describentis, opusculum* (printed in: *Art. Aurif. I*, 416-419); in the table of contents of *Art. Aurif.* given under the abbreviated title: *Ignotus author de Secretis Lapidis* (no. 15).

— Rhazes is the Latin name for Abū Bakr Muhammed ibn Zakariyā al-Rāzi. He was born in Teheran about the middle of the 9th century. He spent the most important years of his life in Baghdad and died about 924. He was a physician, physicist and alchemist. The influence of his medical knowledge made itself felt far into the Middle Ages. He used the results of his chemical experiments in medicine and on account of that he was an early predecessor of iatrochemistry, developing under Paracelsus in the 16th century.



(See: J. Ruska, *Das Buch der Alaune und Salze*, and Ruska, *Al-Razi's Buch "Geheimnis der Geheimnisse"*).

- \*RIPLAEUS (GEORGIUS), *Liber Duodecim Portarum*, printed in: *Theatr. Chem.*, III, 797-821 and in an abbreviated form, as "Axiomata Philosophica", with a summary table in: *Theatr. Chem.*, II, 109-118. The work came into being in 1471 and is dedicated to King Edward IV (1442-1483). The first edition of Riplaeus' work appeared in 1591 under the title:
- *The Compound of Alchemy. Or The ancient hidden Art of Archemie: Containing the right and perfectest meanes to make the Philosophers Stone, Aurum potabile, with other excellent Experiments. Divided into twelve Gates. First written by the learned and rare Philosopher of our Nation George Ripley, sometime Chanon of Bridlington in Yorkeshyre; and Dedicated to K. Edward IV. Whereunto is adioyned his Epistle to the King, his Vision, his Wheele, and other his Workes, never before published: with certaine briefe Additions of other notable Writers concerning the same, etc.*, London 1591, by Thomas Orwin.
- George Ripley, called after his birth-place, was born in the beginning of the 15th century and died about 1490. He studied in Rome and Louvain, and stayed in the Isle of Rhodes. In 1471 he was back in England, was a canon in the Augustine priory of Bridlington and experimented there in his alchemical laboratory.
- \*RODARGIRUS (LUCAS), *Pisces Zodiaci inferioris: vel de Solutione Philosophica cum aenigmata totius Lapidis Epitome*, printed in: *Theatr. Chem.*, V, 723-762. The author dates his work 1563, however, the author is probably fictitious.
- \*ROSARIUM PHILOSOPHORUM, an anthology from the works of well-known alchemical authors, printed in: *Art. Aurif.*, II, 220-408; incipit: "Qui desiderant artis Philosophicae scientiae maioris cognitionem verissimam habere", 20 pictures and inserted verses in German. This *Rosarium Philosophorum* is not to be mixed up with the *Rosarium* ascribed to Arn. of Villanova. The *Rosarium Philosophorum* probably dates from the 15th century (Thorndike, III, 56). From the inserted German verses Maier (*Symbola Aureae Mensae* p. 273-275) concludes that the author was a German and he says about the *Rosarium Philosophorum*, among other things: "Among the allegorical pronouncements there is a number bearing upon the kernel of art, and if somebody knows how to collect these pronouncements carefully, like roses from thorns, he will have a bouquet, the smell of which will gratify the intellect wonderfully". Further, Maier's appreciation of the *Rosarium Philosophorum* can be seen from the fact that he uses at least 13 mottos occurring there also in the *Atalanta Fugiens*.
- ROSCHER, W. H., *Lexikon der Griechischen und Römischen Mythologie*, Leipzig 1884-1890.
- ROSENCREUTZ (CHRISTIAN), *Chymische Hochzeit: Christiani Rosencreutz. Anno. 1459. Arcana publicata vilescunt; et gratiam prophanata amittunt. Ergo: ne Margaritas objice porcis, seu Asino substerne rosas*, Strasbourg 1616, by Lazarus Zetzner's.
- \*ROSINUS AD EUTHICIAM, printed in: *Art. Aurif.*, I, 267-298. According

- to Sarton and Thorndike, Rosinus is possibly a corruption of Zosimos (Greek alchemist, 4th century). This writing already occurs in manuscripts of the 13th century. (Dor. Waley Singer, *Catal. etc.*, no. 51: Glasgow Univ., Hunterian Libr. 253, fol. 63v-71). Maier supposes that Rosinus is an Arabic alchemist (*Symbola Aureae Mensae*, p. 212).
- \*ROSINUS AD SARATANTAM EPISCOPUM, printed in: *Art. Aurif.*, I, 299-340. Just as the previous Rosinus work, known in manuscript before 1500, (Thorndike-Kibre, *A Catal. of Incipits of Mediaeval Scientific Writings in Latin*, 767).
- \*RULANDUS (MARTINUS), *Lexicon Alchemiae sive Dictionarium Alchemisticum, cum obscuriorum Verborum, et Rerum Hermeticarum, tum Theophrast-Paracelsicarum Phrasium, Planam Explicationem continens*, Frankfurt 1612.
- Martinus Rulandus the Elder (1532-1602), was court-physician to Emperor Rudolph II and Count Palatine. It is probably that he knew Maier. (For other alchemical lexicons, see: A. J. Pernety and G. Testi).
- RUSKA, J., *Tabula Smaragdina, ein Beitrag zur Geschichte der hermetischen Literatur*, Heidelberg 1926, *Arbeiten aus dem Institut für Geschichte der Naturwissenschaft*, 16, IV. (For the text of the *Tabula Smaragdina*, see the commentary of embl. 1).
- *Turba Philosophorum, ein Beitrag zur Geschichte der Alchemie*, Berlin 1931, Vol. I of *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, ed. P. Diepgen and J. Ruska (see also under Plessner and *Turba Philosophorum*).
- "Die Alchemie des Avicenna", *Isis*, 60, vol. XXI (1934), I, p. 14-51.
- *Das Buch der Alaune und Salze. Ein Grundwerk der spätlateinischen Alchemie*, Berlin 1935.
- Al-Razi's Buch 'Geheimnis der Geheimnisse', Berlin 1937.
- SARTON, G., *Introduction to the History of Science*, Washington 1927-1947, 3 vol., 5 parts.
- *The Appreciation of Ancient and Mediaeval Science during the Renaissance (1450-1600)*, Philadelphia, Univ. Press, 1955.
- SAXL, F., "Macrocosm and Microcosm in Mediaeval Pictures", *Lectures*, I, London 1957, p. 58-72.
- \*SCALA PHILOSOPHORUM, printed in: *Art. Aurif.*, II, 115-183. The *Scala Philosophorum* probably appeared for the first time in print in: *De Alchimia Opuscula Complura veterum philosophorum*, Frankfurt 1550, p. 101 sq.
- SCHMIEDER, K. C., *Geschichte der Alchemie*, Halle 1832, (facsimile edition, Ulm 1959).
- SCHOLEM (GERSHOM), *Zur Kabbala und ihrer Symbolik*, Zürich 1960.
- *Von der mystischen Gestalt der Gottheit, Studien zu Grundbegriffen der Kabbala*, Zürich 1962.
- SCHRAMM, P. E., *Kaiser, Rom und Renovatio*, Teubner 1929.
- \*SENIOR, *Senioris Zadith, filii Hamuelis Tabula Chimica*, printed in: *Theatr. Chem.*, V, 191-239. The first printed edition of the *Tabula Chimica* dates

- from 1566, published at Strasbourg, under the title: *Senioris Zadith, antiquissimi philosophi, De Chimia*.
- This work is of Arabic origin. The author's name is Muhammed ibn Umail, an alchemist living during the caliphate of Al-Hakam II, who reigned in Spain from 951 till 976. Muhammed ibn Umail was the author of *The silver water and the starved earth* and *Letter from the Sun to the waxing Moon*. Both writings were translated into Latin in the Middle Ages and became known under the author's name Senior Zadith, son of Hamuel, and with the title *Tabula Chimica*, and as part of it *Epistola Solis ad Lunam Crescentem* (see: Stapleton). In *Epistola Solis ad Lunam Crescentem* (in: *Theatr. Chem.*, V, 194-195) the words of the motto of emblem XXX from the *Atalanta Fugiens* occur.
- SHEPPARD, H. J., "The Ouroboros and the Unity of Matter in Alchemy; A Study in Origins", *Ambix*, vol. X (1962), no. 2.
- SHERWOOD TAYLOR, F., "A Survey of Greek Alchemy", *Journal of Hellenic Studies*, 50 (1930), p. 109 sq.
- "The Visions of Zosimos", *Ambix*, I (1937), p. 88-92.
- "The Alchemical Works of Stephanos of Alexandria", *Ambix*, I (1937), p. 116-139; *Ambix*, II (1938), p. 39-49.
- *The Alchemists, Founders of Modern Chemistry*, New York, 1949.
- SIEBMACHER (JOHANN AMBROSIUS), *Aquarium Sapientum, of Wasserstein der Weysen, das ist, ein Chymisch Tractätlein, darin der Weg gezeiget, die Materia genennet, und der Process beschrieben wird, zu dem hohen Geheymnuss der Universal Tinctur zu kommen etc.*, Frankfurt 1619, by Lucas Jennis.  
The *Aquarium Sapientum* was much appreciated, among others by Jacob Böhme.
- SOLMSEN, F., *Aristotle's System of the Physical World*, Ithaca 1960.
- \*SPERBER (JULIUS), *Isagoge, in veram Triunius Dei et Naturae cognitionem in qua multa quoque praeclara de Materia Lapidis philosophici, eiusque usu mirabilissimo continentur*, Hamburg, 1674.
- Sperber lived in the 2nd half of the 16th century and died about 1616. His work circulated in manuscript and was published posthumously. He thought and wrote in the spirit of the Rosicrucians, mixed alchemy with magic and admired Arippa of Nettesheim.
- \*SPLENDOR SOLIS, Harleian ms. (ca 1582), no. 3469, Br. Mus., London; it is ascribed to Salomon Trismosin (see: Trismosin Salomon).
- STAPLETON, H. E. and HIDAYAT HUSAIN, M., "Tabula Chimica Senioris Zadith filii Hamuelis, in Three Arabic Treatises on Alchemy by Muhammed ibn Umail", *Memoirs of the Asiatic Soc. of Bengal*, vol. 12 (1935).
- STILLMAN, J. M., *The Story of Alchemy and Early Chemistry*, New York 1960, Dover Books on Physics and Engineering no. 628.
- STRONG, E., *Procedure and metaphysics, study in the philosophy of mathematical-physical science in the 16th and 17th centuries*, Univ. of Calif. Press 1936.

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- SUDHOFF, K., *Südhoffs Archiv für Geschichte der Medizin.*  
— *Versuch einer Kritik der Echtheit der Paracelsischen Schriften*, Berlin 1894, 1899, 2 vol.
- SUIDAS, (Greek lexicographer from the 10th century), *Lexicon*, ed. A. Adler, Leipzig 1931.
- SYRUS (EPHRAEM), *Hymni et Sermones*, ed. Th. Lamy, Mechlin 1902.
- \*TABULA CHIMICA, see: Senior.
- \*TABULA SMARAGDINA, see: Hermes Trismegistus, and commentary on emblem I.
- TERVARENT, G. DE, *Attributs et Symboles dans l'Art Profane, 1450-1600*, Geneva, 1958.
- TESTI, G., *Dizionario di Alchimia e di Chimica Antiquaria*, Rome 1950; for other alchemical lexions see: A. J. Pernety and M. Rulandus.
- \*THEATRUM CHEMICUM, *Praecipuos Selectorum Auctorum Tractatus De Chemiae Et Lapidis Philosophici Antiquitate, veritate, jure, praestantia, et operationibus, continens: In gratiam Verae Chemiae, et medicinae Chemicae studiosorum (ut qui uberrimam inde optimorum remediorum messem facere poterunt) congestum, et in Sex partes seu volumina digestum; Singulis Voluminibus, Suo Auctorum Et Librorum Catalogo primis pagellis: rerum vero et verborum Indice postremis annexo. Argentorati, Sumptibus Heredum Eberh. Zetzneri, 1659.*  
8°, each volume ca 800 pp. with wood-cuts in the text; vol. I-IV in 1659; vol. V in 1660; vol. VI in 1661 with separate title. For a specified table of contents see Ferguson, II, 436-440. The first edition of the *Theatr. Chem.* appeared in 4 vol. at Ursel 1602; reprint in 1613 Strasbourg, also 4 vol.; in 1622 a 5th vol. appeared; after this follows the edition in six volumes of Strasbourg 1659-1661. Beside the coll. Manget, the *Theatr. Chem.* is the greatest alchemical collective work.
- THORNDIKE (LYNN), *History of Magic and Experimental Science up to the Seventeenth Century*, New York 1929-1958, 8 vol.
- THORNDIKE (LYNN) and KIBRE (PEARL), *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*, Cambr. Mass. 1937.
- TILLYARD, E. M. W., *The Elisabethan world-picture*, London 1950.
- TIMMERS, J. J. M., *Symboliek en iconographie der christelijke kunst*, Roermond 1947.
- TOLL (JACOB), *Fortuita. In quibus, praeter Critica nonnulla, tota fabularis Historia Graeca, Phoenicia, Aegyptiaca, ad Chemiam pertinere assertitur*, Amsterdam 1687 (see Duveen, *Bibl. Alch.*, 583).
- TOLNAY, C. DE, "The music of the Universe", *The Journal of the Walters Art Gallery*, Baltimore, 1943, vol. VI.
- TOURS (BERNARDUS SILVESTRIS OF, flor.ca. 1150), *De mundi universitate libri duo*, ed. Barach, Biblioth. philos. medii aevi, I, Innsbruck 1876.
- \*TRACTATUS AUREUS, see: Hermes Trismegistus.

- \*TREVISANUS (BERNHARDUS), *De Chemia, Opus historicum et dogmaticum*, Strasbourg 1567; in this work, Trevisanus describes his life-story; a life devoted to searching the Philosophers' Stone, which he finally finds at the end of his life, after having wandered about for years in order to find an adept who would be able to initiate him into that secret.
- *De Chymico Miraculo, quod Lapidem Philosophiae appellant*, printed in: *Theatr. Chem.*, I, 683-709. Edited earlier at Basel 1583. The fourth part of *De Chymico Miraculo* is an allegory about the chemical King and the source, and helped to define the meaning of embl. XLVIII of the *Atalanta Fugiens*.
- *Liber de Secretissimo Philosophorum opere Chymico*, in: J. J. Manget, *Bibliotheca Chymica Curiosa*, 1702, II, 388 sq.
- At an advanced age Bernhardus Trevisanus (1406-1490) is supposed to have landed on the Isle of Rhodes and to have discovered there the secret of the Philosophers' Stone by means of a comparative study of the alchemical authors, after years of failure and poverty. This biography in *De Chemia* formed a stimulus for many an alchemist to continue with hermetic art, notwithstanding adverse strokes of fortune. Already in the 16th century, a moot point arose whether under the name Bernhardus Trevisanus one or two figures existed; a question which also Maier deals with (*Symbola Aureae Mensae*, p. 253 sq), and which has not been solved up to the present. Maier much appreciated the work of Bernhardus Trevisanus, his: "Aristotelian philosophy, his Galenic medicine, his alchemical working-method of combining gold and mercury, in other words of combining the active and the passive principle; combining the solvent with the matter to be dissolved, so that they form a solid unity" (*Symbola Aureae Mensae*, p. 255).
- \*TRISMOSIN (SALOMON), *Aureum Vellus, oder Guldin Schatz und Kunstkammer etc.*, Rorschach am Bodensee 1598.  
It is an alchemical collective work; Salomon Trismosin, who is mentioned as the author of one of the writings included in *Aureum Vellus*, is wrongly mentioned in connection with the whole collective work. According to Kopp (*Die Alchemie*, I, 243), he is a fictitious figure. According to Trismosin's own life-story, included in *Aureum Vellus*, he lived at the end of the 15th century and was been Paracelsus' teacher. (*Splendor Solis* does not occur in this collective work).
- \*TURBA PHILOSOPHORUM, see also under: AENIGMATA EX VISIONE ARISLEI, under ALLEGORIAE SUPER TURBAM, under EXERCITATIONES IN TURBAM, and VISIO ARISLEI.
- \*TURBA PHILOSOPHORUM, printed in: *Art. Aurif.*, I, p. 1-69, (version "B"); *Art. Aurif.*, I, p. 70-151, divided into 78 "Sententiae", (version "C"); *Theatr. Chem.*, V, p. 1-52, divided into 72 "Sermones", (version "A"). According to Ruska (*Turba Philosophorum*, Berlin 1931), version A comes nearest to the earliest Latin manuscripts; version B is the most inexact one; version C is composed from B and A. The *Turba* edition in *Art. Aurif.* is the first edition of the *Turba*, which, although not less influential than Geber's *Summa Perfectionis*, appears in print only about a century later than Geber's work.
- Manuscripts:

The oldest Latin manuscripts date from the 13th century, e.g. Berlin, Kgl. Bibl. Cod. Berol. Qu 584, fol. 2r-22v; see Ruska, *Turba* p. 71 and D. W. Singer, *Catal. etc.*, Glasgow, Hunterian Libr., ms. 253, fol. 72r-89v. From the number of *Turba* manuscripts, written in the period between the manuscripts from the 13th century and the first printed *Turba* edition in 1572, and from the frequency with which the *Turba* is cited in other alchemical writings, the importance of the *Turba Philosophorum* is obvious.

— Origin:

As a result of Ruska's study of the *Turba* (see s.v. Ruska) it is established that the *Turba*, which was handed down only in Latin manuscripts, is of Arabic origin. Afterwards Stapleton proved (see s.v. Stapleton), that passages from the *Turba* occurred in the work of the 10th century Arabic alchemist, Muhammed Ibn Umail, who became known in Latin as Senior (see: s.v. Senior). Recent research (see: s.v. Plessner) proved that the *Turba* text should be considered as one whole. In consequence of this the death of Muhammed ibn Umail, about 960—in whose work passages from the *Turba* occurred—can be considered as a terminus ante quem for its origin. Plessner constructs a terminus post quem in virtue of the woman with deadly poison in her body being mentioned in the *Turba* (Art. Aurif., I, 140: "...nevertheless the philosophers have put to death that woman who killed her husbands, for her body is full of poison"; this allegory from the *Turba*, used in an alchemical sense, gave Maier his inspiration for his emblem L of the *Atalanta Fugiens*). Plessner connects this motif with a Hindu myth about the poison girl, who kills men in her embrace (W. Hertz, "Die Sage vom Giftmädchen", *Abhandl. der bayrischen Akademie*, Philos. Philol. Kl., vol. 20 (1893), no. 1). This myth was known in the Islamic world by a translation into Arabic, in the first half of the 9th century, of a poison book, ascribed to Kauṭilya (Kauṭilya, flor. 2nd h. 4th century B.C., Hindu statesman and minister of Emperor Candragupta. To Kauṭilya is ascribed a work about statesmanship, which also deals with medicine, metallurgy and other aspects of the Hindu civilization. It is the oldest datable work in Sanskrit. B. Straus, *Das Giftbuch der Sanaq*, Berlin 1934, Quellen und Studien zur Gesch. der Naturwissensch. und der Medizin, vol. IV; Sarton, I, 147-148). The time of origin of the *Turba* would then lie between approx. 850 and 950.

— Contents of the *Turba Philosophorum*:

A meeting of philosophers discusses the problems of alchemy. In the Latin text 9 philosophers take part in a preliminary discussion about the nature and origin of the Universe. They are (according to version C, Art. Aurif., I, 70-151): Eximidus, Ysindrus, Anaxagoras, Pandolphis, Arisleus, Lucas, Locuster, Pythagoras and Eximenes. The names Anaxagoras and Pythagoras made Ruska and Plessner suppose that also the other names were Greek names in a corrupted form. By transposing them back into Arabic characters the following version of the said names resulted: Anaximander, Anaximenes, Anaxagoras, Empedocles, Archelaus, Leucippus, Ecphantus, Pythagoras and Xenophanes. These are the names of nine pre-Socratic philosophers and the *Turba* pronouncements agree partly with their conceptions.

The introduction in the *Turba* is followed by alchemical discussions and allegories, which, as can be seen from this introduction, are based on a cosmology taken from the pre-Socratic natural philosophy.

— The pronouncements of the said 9 philosophers of the *Turba* (from version C of the *Turba*):

Eximodus (Anaximander): The primary principle is unlimited.

Ysindrus (Anaximenes): The primary principle is air, which becomes thinner or denser, in proportion to the approach or withdraw of the sun from it.

Anaxagoras: Pietas and ratio are the beginning of all things created.

Pandolphis (Empedocles): The air has a double function; the air separates the water from the earth and at the same time forms a barrier between water and fire, so that the elements cannot destroy each other mutually.

Arisleus (Archelaus): The one God created out of the thin fire and the compact earth.

Lucas (Leucippus): God created out of the four elements and what is created returns to him: out of this arose the processes of becoming and decaying.

Locuster (Ecphantus): Difference between earthly and heavenly; the earthly things can be perceived by the senses, the heavenly things by pietas and ratio.

Pythagoras: God created the four elements; out of these he created the angels, the stars, the living beings and man, out of one, two, three and four elements respectively.

Eximenus (Xenophanes): Everything consists of a mixture of the four elements.

The starting-points of the pre-Socratics are: Anaximander takes the unlimited as primary principle; Anaximenes takes "air" as a starting-point; Anaxagoras presupposes an unlimited number of primary elements, each with a different quality; Pythagoras bases the cosmic order on numbers; Empedocles sets up the theory of the four elements and attaches equal value to all four elements; Empedocles starts from two principles, the attracting and repelling forces; Archelaus was especially interested in natural science, Leucippus starts from the full and the empty and the atom theory; Xenophanes supposes an eternally invariable being, behind the multitude of phenomena. From comparison between the pronouncements from the *Turba* with the conceptions of the pre-Socratics it turns out that the *Turba* is based on it. The rest of the *Turba* is quite alchemical and, as we can see from Ruska's research, based on well-known Greek-alchemical writings. In sententia 12, for instance (*Art. Aurif.*, I, 83), Parmenides alludes to the well-known pronouncement of Pseudo-Democritus: "Nature rejoices in nature, nature conquers nature, nature rules nature", (Pseudo-Democritus, ed. and transl. Berthelot, *Coll. des Anc. Alch. Gr.*). The said phrase, adopted in the *Turba* from Greek-alchemical writings, and having found its way into Latin West-European alchemy via the *Turba*, supplied Maier with the words for his emblem xx in the *Atalanta Fugiens*.

It is not established whether the *Turba* goes back to a Greek original text. The 9 pre-Socratics, mentioned in the *Turba*, do occur among the

15 philosophers mentioned by Hippolytus, *Refutatio omnium haeresium*, c. 222 A.D., Liber I and, according to Plessner, there is a close connection between the texts of both of them.

— Summary:

First print of the *Turba*: in: *Art. Aurif.*, I, in 2 versions. Earliest manuscripts in Latin, from the 13th century. The *Turba* is of Arabic origin and is dated by Plessner between 850-950. The contents are cosmological-chemical and show a connection with Ionian Natural Philosophy. Ruska proved the connection between the *Turba* and Greek-chemical authors. The *Turba Philosophorum* was highly valued in alchemical circles, up to and into the 17th century.

- \*VALENTINUS (BASILIUS), *Practica cum Duodecim Clavibus et Appendice, De Magno Lapide Antiquorum Sapientum, scripta et relicta a Basilio Valentino Germ. Benedictini Ordinis Monacho*, printed in: M. Maier's *Tripus Aureus, Hoc Est, Tres Tractatus Chymici Selectissimi*, Frankfurt 1618; 55 pp. 12 engravings with the 12 keys, 1 engraving in the appendix.

— Maier attended to the edition of Basilius Valentinus' manuscript, and thought very highly of his work (*Symbola Aureae Mensae*, p. 257 sq); Maier supposed that Basil Valentine lived in Erfurt and belonged to the Benedictine order. His manuscripts are supposed to have remained hidden for a long time; however, it is not known whether Basil Valentine was a historical figure, and if it is assumed that he was, whether he lived in the 15th or the 16th century (Thorndike, vol. VII and VIII, passim s.v.; Ferguson, I, 77-82).

- \*VALLENSIS (ROBERTUS), *De Veritate et Antiquitate Artis Chemicæ et Pulveris sive Medicinæ Philosophorum vel Auri Potabilis, deque illius materia et compositione, eiusque mira vi in tria rerum genera Animale, Vegetale et Minerale, Testimonia et Theoremata, Ex variis auctoribus sacris, Theologis, Iurisperitis, Medicis, Philosophis, et Poetis, per Robertum Vallensem selecta*, Leiden 1593.

ed. pr. Paris 1561; printed in: *Theatr. Chem.*, I, 7-28.

— Robertus Vallensis lived in the 16th century and was of German origin; to show the truth and the age of alchemy, he quotes the Holy Writ, the work of jurists, theologians, philosophers, physicians and poets; thus he cites Esdras the prophet, Solomon, Ecclesiasticus and David; of the jurists he mentions Orladus, a friend of Petrarca; of the theologians Augustine, Thomas Aquinas and others; further the well-known figures from the history of alchemy and medicine. Finally he mentions Virgil as one of the poets who sang of the tenets of alchemy. In Robertus Vallensis we find the same eclecticism as in M. Maier..

VEEN, J. VAN DER, *Zinnebeelden oft Adams Appel*, Amsterdam 1642.

- \*VIGENERIUS (BLASIUS), (1523-1596), *Tractatus de Igne et Sale*, in: *Theatr. Chem.*, VI, p. 1 sq.

- \*VILLANOVA (ARNALDUS DE),

— *Epistola super Alchimia ad Regem Neapolitanum*, printed in: *Art. Aurif.*, II, 532-537; de *Epistola* occurs previously in Villanova's collected works, Lyon 1504.

— *Flos Florum ad Regem Aragonum*, printed in: *Art. Aurif.*, II, 513-531;



*Flos Florum* occurs before that in his collected works, Lyon 1504.  
 — *Novum Lumen*, printed in: *Art. Aurif.*, II, 497-512. Also in the coll. works, Lyon 1504.

— *Rosarium*, or *Rosarius*, or *Rosarium Philosophorum*, or *Thesaurus Thesaurorum*, printed in: *Art. Aurif.*, II, 419-496; incipit: "Iste namque Liber vocatur Rosarium". It also occurs in the coll. works, Lyon 1504.

This *Rosarium Philosophorum* in the name of Villanova should not be confused with the anonymous *Rosarium Philosophorum* (in: *Art. Aurif.*, II, 220-418, incipit: "Qui desiderant artis. . . . cognitionem", see s.v.).

— *Speculum Alchymiae*, printed in: *Theatr. Chem.*, IV, 515-542; incipit: "Ut ad perfectam scientiam. . . ." This writing, which is printed in the name of Villanova, occurs under various other names in the manuscripts. The non-authentic work, ascribed to Villanova, dates for the greater part from the 14th and 15th centuries (see: Thorndike, III, 83 and 163 sq).

— Arn. of Villanova was born about 1234 or 1250 and died in 1309. He was a physician, astrologer, diplomat, alchemist and seer. He held Joachimite views and prophesied the end of the world and the coming of the antichrist in the 14th century. In Paris he experienced difficulties with the inquisition in consequence of his writings, among other things about the meaning of the "Tetragrammaton". Afterwards he was rehabilitated, after Pope Boniface VIII was luckily cured by him. He was a famous physician, who rendered his services to princes and popes. In 1285 he was sent for by Peter of Aragon; after that he taught at the University of Montpellier.

He was an anti-dogmatist, he wrote against magic and sorcery, although his own writings were not free from it. As an alchemist, a reformer in the social field and a prophet with Joachimite views, it is not to be wondered that he met with difficulties on the part of the theologians; but on account of his astronomical-medical skill he obtained the support of the most influential figures time and again.

(See on Villanova: J. B. Hauréau, *Histoire Littéraire de la France*, 1881, vol. XXVIII, p. 26-126; Thorndike, II, cap. LXVIII; and III, cap. IV, et passim; Sarton, II, 893-900).

\*VISIO ARISLEI, printed in: *Art. Aurif.*, I, 159-162. The *Visio Arislei* is of Arabic origin and belongs to the *Turba* literature and occurs in the earliest known Latin *Turba* manuscripts (see also under: *Aenigmata ex Visione Arislei* and under: *Turba Philosophorum*).

— Contents of the *Visio Arislei*:

At the end of the meeting of philosophers (the "Turba Philosophorum") Pythagoras begs Arisleus to give another comparison, in addition to the allegory of Balgus about the fruit-bearing tree (*Atalanta Fugiens*, embl. ix). After a day of reflection Arisleus then speaks about the union of Thabritius and Beya, two royal children, a son and a daughter. It is an alchemical allegory about the union of sulphur and mercury. Thabritius and Beya (variants are Cabritis or Grabitius), is the Latin rendering of the Arabic words "kibrit", sulphur, and of "albaida", the white one. The "white one" is an alchemical synonym for mercury,

female, Luna, Latona and such like (see: Ruska, *Turba Philosophorum*, 323 sq). Maier pictured this allegory of Arabic origin in *Symbola Aureae Mensae* (p. 319) as a man and a woman who hold out their hands to each other, with the motto: "Lapis habetur ex matrimonio Chabrici et Beiae" (Afb. 78).

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## INDEX

- Aenigmata ex Visione Arislei*, 166, 179-180, 179 n.4.  
 Agricola, G., 103-104.  
 Alanus ab Insulis, 295 n.18, 295 n.20.  
*Allegoriae super Turbam*, 228-229, 332, 333.  
 Andreae, J. V., 46, 47.  
 Anthony, F., 4.  
*Aquarium Sapientum*, 106.  
 Aquinas, T., 11, 34, 140 n.5.  
 Aristotle, 33, 51-52, 140.  
 Aristotle (Pseudo), 72, 76, 83, 234 n.5, 330, 333.  
*Artis Auriferae*, see bibliogr. and s.v. *Rosarium* etc.  
 Augurellus, J. A., 154 n.3, 249 n.6.  
*Aureum Vellus*, see s.v. Mennens, G., and Trismosin.  
*Aurora Consurgens*, 19 n.37, 89, 105, 109, 110, 118, 119, 127, 128, 141, 173, 199, 200, 205, 206, 248, 320, 327 n.18, 330, 331, 337, 341-342.  
 Ausonius, 270 n.6.  
 Author de Perfecto Magisterio, 90.  
 Autun, Honorius of, 128 n.2.  
 Avicenna, 17, 30, 31, 33, 153, 155, 156-157, 157 n.7, 216, 331, 342-343.  
 Bacon, R., 32, 33.  
 Barnaud, N., 6 n.13.  
 Basil Valentine, see Valentine.  
 Beauvais, Vincentius of, 33.  
*Belinus-metaphor*, 160 n.1, 162 n.2-3, 265.  
 Ben Jonson, 20.  
 Bingen, Hildegard von, 32, 139 n.2.  
 Boissard, J. J., 256.  
 Bolos Democritos, 23, 26, 28, 50, 165, 166.  
 Bonus, Petrus, see *Margarita Pretiosa Novella*.  
 Boodt, A. B. de, 67, 344.  
 Borron, R. de, 295 n.19.  
*Buch von der Heiligen Dreifaltigkeit*, 19.  
 Christ, 8 n.17, 9, 9 n.20, 37, 44, 51, 86, 93, 94, 98, 105, 106, 107, 111, 156, 175, 190, 199, 204 n.2, 212, 225, 237-238, 247, 250 n.9, 262, 263, 301 ff, 327 n.19.  
*Chymisches Cabinet*, 353.  
*Chymische Hochzeit*, 15, 27 n.52, 41, 46, 278, 303.  
*Cibinentic Mass*, 303.  
 Cicero, 282.  
*Clangor Buccinae*, 83, 84, 114, 116, 118, 127, 128, 131, 311, 330, 331, 333.  
 Clemens, A. P., 93.  
 Cleopatra, *Chrysopoeia*, 135.  
 Codex Vossianus Chemicus, see *Aurora Consurgens*.  
 Colonna, F., 2 n.2.  
*Confessio Fraternalitatis*, 4, 45, 46, 47, 48.  
*Consilium Conjugii*, 237 n.2, 251, 284, 285, 286 n.1, 332, 345.  
*Corpus Hermeticum*, 175-176.  
 Dee, J., 42, 175, 285, 319.  
 Democritos (Pseudo), see Bolos Democritos.  
*Duenech-allegory*, 110, 207, 208-213, 294 n.14.  
 Embl. I, 12 n.26, 55-63, 65, 82, 85, 136, 138, 143, 172, 221, 244, 271, 277, 317, 330.  
 Embl. II, 63-66, 221, 242, 246, 330.  
 Embl. III, 24 n.44, 66-71, 85, 115 n.4, 133, 141, 179, 219, 238, 281, 330.  
 Embl. IV, 71-75, 77, 80, 288, 299, 330.  
 Embl. V, 2 n.2, 66, 75-80, 85, 86, 104, 111, 112, 152, 233, 258, 330, 336.

- Embl. VI, 29 n.58, 61, 66, 81-87, 242, 318, 328, 330.
- Embl. VII, 49, 61, 88-94, 144, 145, 238, 270, 330, 336.
- Embl. VIII, 64, 66, 89, 95-100, 112, 130, 204 n.2, 234, 318 n.5, 330, 335.
- Embl. IX, 61, 100-107, 178, 330, 335.
- Embl. X, 79, 107-112, 124, 130, 315, 330.
- Embl. XI, 17, 19 n.37, 61, 70, 84, 113-119, 123, 127, 128, 141, 142, 178, 179, 180, 194, 200, 218, 229, 238, 274, 276, 330, 331, 337.
- Embl. XII, 7, 13 n.29, 80, 94, 119-124, 130, 143, 161, 177, 180, 238, 242, 259, 265, 272, 273, 320, 331, 336.
- Embl. XIII, 70, 71, 81, 116, 118, 124-129, 141, 210, 229, 238, 249, 296, 297, 302, 331.
- Embl. XIV, 111, 129-135, 147, 161, 258, 281, 331.
- Embl. XV, 79, 92, 98, 117 n.7, 135-141, 155, 255, 296, 315, 331.
- Embl. XVI, 61, 89, 92, 94, 141-145, 288, 289, 315, 331.
- Embl. XVII, 7, 79, 112, 146-152, 238, 259, 331, 336.
- Embl. XVIII, 17 n.35, 152-157, 331.
- Embl. XIX, 89, 92, 158-162, 183, 216, 331.
- Embl. XX, 64, 112, 162-166, 216, 273, 331.
- Embl. XXI, 60, 82, 84, 159, 161, 166-176, 196 n.1, 234, 257, 258, 285, 288, 315, 319, 331.
- Embl. XXII, 24 n.44, 61, 69, 70, 115 n.4, 122, 133, 176-181, 204 n.2, 219, 259, 281, 331, 336.
- Embl. XXIII, 7, 80, 95, 181-185, 273, 277, 331, 336.
- Embl. XXIV, 86, 94, 160, 160 n.1, 161, 186-190, 207, 212, 263, 294 n.15, 296, 298, 331.
- Embl. XXV, 130, 134, 161, 191-195, 225, 251, 274, 276, 331.
- Embl. XXVI, 11 n.23, 104, 105, 111 n.2, 117 n.9-10, 183, 195-201, 206, 255, 320, 321, 331, 334, 335.
- Embl. XXVII, 11 n.23, 13 n.29, 87, 94, 104, 105, 111 n.2, 112, 123, 124, 198, 199, 200, 201-206, 248 n.4, 255, 320, 327 n.18 and 20, 331, 334, 335, 336.
- Embl. XXVIII, 27 n.52, 67, 70, 71, 81, 110, 160 n.1, 161, 178, 206-213, 228, 249 n.7, 293 n.14, 296, 297, 300 n.30, 302, 331.
- Embl. XXIX, 214-217, 331.
- Embl. XXX, 64, 66, 80, 145, 184, 217-221, 280, 288, 315, 331, 332.
- Embl. XXXI, 9 n.20, 27 n.52, 160 n.1, 161, 194, 207 n.1, 212, 221-225, 236, 238, 301, 332.
- Embl. XXXII, 61, 106, 226-229, 332, 336.
- Embl. XXXIII, 82, 229-234, 255, 332, 336.
- Embl. XXXIV, 61, 234-239, 245, 246, 271, 332.
- Embl. XXXV, 7, 77, 80, 82, 83, 112, 143, 156, 166, 216, 233, 239-242, 245, 246, 273, 274, 277, 332, 336.
- Embl. XXXVI, 243-247, 288, 332, 336.
- Embl. XXXVII, 130, 192, 241, 247-251, 332.
- Embl. XXXVIII, 82, 137, 232, 248 n.4, 251-255, 332.
- Embl. XXXIX, 7, 61, 73, 80, 255-259, 273, 299, 332, 336.
- Embl. XL, 10 n.20, 17 n.35, 156, 259-263, 288, 332.
- Embl. XLI, 7, 61, 73, 80, 162 n.2, 202, 206, 242, 263-266, 273, 274, 299, 314 n.1, 320, 332.
- Embl. XLII, 17, 64, 65, 66, 81, 113 n.1, 266-268, 319, 332, 336.
- Embl. XLIII, 2 n.2, 61, 85, 94, 123, 143, 145, 238, 268-272, 320, 325 n.11, 332.
- Embl. XLIV, 7, 27 n.52, 50, 73, 74, 80, 82, 161, 194, 240, 242, 264, 273-278, 293 n.12, 296, 299, 308, 321, 332, 336.
- Embl. XLV, 133, 133 n.4, 278-282, 288, 332, 336.
- Embl. XLVI, 64, 66, 94, 282-285, 286 n.1, 288, 289, 332.

- Embl. XLVII, 64, 66, 94, 145, 285-289, 333.  
 Embl. XLVIII, 27 n.52, 74, 75, 86, 96, 106, 110, 112, 160 n.1, 161, 207 n.1, 212, 212 n.3, 225, 228, 238, 289-304, 333.  
 Embl. XLIX, 7, 61, 80, 158, 304-309, 326 n.13, 333, 336.  
 Embl. L, 75, 111, 310-313, 333, 336.  
*Exercitationes in Turbam*, 346.
- Fama Fraternalitatis*, 4, 16, 40 ff.  
 Ficino, M., 39, 101, 318.  
 Figures, see page XII.  
 Fig. 51, page XIV, 314.  
 Fig. 52, p. 1, 78, 319.  
 Fig. 53, p. 2 n.2, 6, 78.  
 Fig. 54, p. 6, 80, 104, 105.  
 Fig. 55, p. 17, 319 n.6.  
 Fig. 56, p. 85.  
 Fig. 57, p. 87.  
 Fig. 58, p. 91, 143.  
 Fig. 59, p. 6, 91.  
 Fig. 60, p. 6, 92.  
 Fig. 61, p. 103.  
 Fig. 62, p. 6, 104, 105, 195, 321 n.9.  
 Fig. 63, p. 118.  
 Fig. 64, p. 6, 134.  
 Fig. 65, p. 135.  
 Fig. 66, p. 6, 255.  
 Fig. 67, p. 6, 143.  
 Fig. 68, p. 6, 98, 156, 303.  
 Fig. 69, p. 6, 179.  
 Fig. 70, p. 192 n.2.  
 Fig. 71, p. 6, 211.  
 Fig. 72, p. 212, 303.  
 Fig. 73, p. 213.  
 Fig. 74, p. 6, 217.  
 Fig. 75, p. 219.  
 Fig. 76, p. 6, 220.  
 Fig. 77, p. 6, 221, 307.  
 Fig. 78, p. 6, 221.  
 Fig. 79, p. 191 n.3, 262.  
 Fig. 80, p. 272.  
 Fig. 81, p. 6, 94, 288.  
 Fig. 82, p. 318.  
 Fiore, J. di, 32.  
 Fludd, R., 3, 4.  
 Frontispiece, page XIV, 130, 169, 178, 202, 206, 273, 274, 281, 289, 314-329, 333.
- Galilei, G., 174.  
 Geber, 12, 13, 34, 37, 347.  
 Gilbert, W., 34 n.77.  
*Gloria Mundi*, 84, 200, 247, 330.  
 Gratianus, 187.  
 Greverus, J., 206, 314, 320-329, 333.
- Heliodorus, 28.  
 Hermes Trismegistus, 33, 170, 171, 172, 173, 191, 225, 271, 272, 292 n.11, 330.  
 Herodotus, 202 n.1, 290 n.3, 291 n.7, 298.  
 Hesiodus, 121, 123, 331.  
 Hollandus, I., 67.  
 Homerus, 79, 79 n.6, 86.  
 Horapollo, 133, 184 n.2, 272, 285 n.1.
- Jābir ibn Hayyān, 30, 34, 53.
- Kelley, E., 3, 12.  
 Khunrath, H., 318-319.
- Lactantius, 197, 199.  
 Lagneus, D., 77 n.1, 101 n.1, 181 n.7, 281.  
 Lambsprinck, 6, 19, 91, 92, 93, 94, 134, 143, 179, 211, 217, 288, 289, 330, 331, 333, 336.  
 Lemnius, L., 72.  
 Lullius, R., 16, 33, 55, 77, 79, 130, 148, 149, 150-152, 296 n.22, 307, 331, 333.
- Magnus, A., 11, 33, 34, 111, 111 n.2 and 3, 112 n.4.  
 Maier, M.,  
 — *Arcana Arcanissima*, 4, 7-8, 80, 83 n.1, 124, 183, 212, 212 n.4 and 5, 241 n.4, 273 n.1, 278 n.1, 285, 289, 293 n.12, 307, 308, 352.  
 — *De Circulo Physico Quadrato*, 4, 5, 9, 170, 352.  
 — *Examen Fucorum Pseudo-Chymicorum*, 10-13, 16, 45, 62, 63 n.12, 337, 353.

INDEX

- *Lusus Serius*, 4, 9, 352.  
 — *Septimana Philosophica*, 14, 118  
 n.11, 355.  
 — *Silentium Post Clamores*, 13, 40,  
 61, 353.  
 — *Symbola Aureae Mensae*, 1, 2, 6  
 n.13, 10, 62, 63, 78-79, 94, 104,  
 105, 129 n.3, 139, 140, 184, 184  
 n.1, 194, 195, 199, 206, 220,  
 221, 224, 242, 255, 276, 280  
 n.1, 289, 295 n.18 and 20, 297  
 n.27, 302 n.36, 303 n.39, 307,  
 308, 320-321, 353.  
 — *Themis Aurea*, 13, 124, 354.  
 — *Tractatus de Septem Montibus*  
*Planetarum*, 13, 192 n.2, 354.  
 — *Tripus Aureus*, 14, 17, 188, 354.  
 — *Verum Inventum*, 58 n.6, 355.  
*Margarita Pretiosa Novella*, 8, 35-37,  
 90, 101 n.1, 181 n.7, 184, 200, 333.  
 Mennens, W., 8.  
 Merian, M., 6, 19, 80.  
*Merlini-allegory*, 110, 207 n.1, 212,  
 225, 291-294, 333.  
 Michelspacher, S., 191 n.3, 262.  
 Mirandola, G. Pico della, 184, 308.  
 Morienus, 31, 97, 115, 116 n.6, 164  
 165-166 n.2, 197, 199, 243, 244  
 n.1, 245-246, 250-251, 253, 330,  
 332, 333, 356.  
*Musaeum Hermeticum*, p. XII, 6,  
 104, 105, 247 n.3 and 4.  
 Nazari, G. B., 294 n.16.  
 Nettesheim, H. C. Agrippa of, 12, 62,  
 136 n.1.  
*New Testament*.  
*Acts*, 106 n.7.  
*Lucas*, 127.  
*St. John*, 86 n.4 and 6, 327 n.19.  
 Norton, Th., 14.  
*Novobrigensis*, G. A., 76, 358.  
*Opus Mulierum et Ludus Puerorum*,  
 69, 96-97, 98, 99, 160, 330, 331,  
 333.  
*Old Testament*,  
*Chronicles*, 14.  
*Ecclesiastes*, 198 n.8.  
*Genesis*, 9 n.20, 238 n.3.  
*Habakkuk*, 326 n.16.  
*Isaiah*, 127, 204, 205.  
*Job*, 133.  
*Judges*, 8 n.17, 250 n.9.  
*Judith*, 326 n.15.  
*Kings*, 127, 302, 331.  
*Proverbs*, 104, 117, 117 n.8, 9, 10,  
 195, 197, 198, 198 n.8, 200 n.13,  
 331.  
*Psalms*, 9 n.20, 10 n.20, 224, 301,  
 302 n.33-34, 327 n.17, 332.  
*Song of Songs*, 201, 204, 205.  
*Old Testament (apocryphal)*,  
*Baruch*, 197, 198, 198 n.8.  
*Jesus Sirach*, 198, 198 n.8.  
*Wisdom*, 117, 117 n.8, 196-197,  
 198, 198 n.8, 200 n.13, 301 n.31.  
 Ovid, 8, 37, 265, 306, 314, 333.  
*Pandora*, 19.  
*Papyrus Holmiensis*, 26.  
*Papyrus Leidensis*, 26, 135.  
 Paracelsus, 30, 37-38, 39, 128-129,  
 180 n.6, 292 n.11.  
*Pistis Sophia*, 134.  
 Plato, 25.  
 Pliny, 63, 192 n.2, 290 n.4.  
*Poimander*, 278 n.3, and see *Corpus*  
*Hermeticum*.  
*Processus Chemici Aliquot*, 208, 303  
 n.40, 331.  
 Rhazes, 30, 33, 177, 257, 288, 333,  
 359-360.  
 Riplaeus, G., 37, 57, 87, 87 n.7, 146,  
 148, 149, 150, 151, 154, 155, 185,  
 331, 333, 360.  
 Rodargirus, L., 179 n.3.  
*Rosarium Philosophorum*, 19, 67, 83,  
 85, 105, 115, 117, 118, 120, 161,  
 169, 187, 191, 193, 198, 199, 200,  
 203, 204, 205, 212, 213, 219-220,  
 224, 238, 249 n.5 and 8, 251 n.11,  
 262, 269, 272, 281, 290, 297 n.25-  
 26, 303, 320, 330, 331, 332, 333,  
 335, 360.  
 Rosicrucians, 3, 4, 11 n.22, 12, 14,  
 18, 27 n.52, 39-48, 61, 62, 63, 78,  
 124, 175, 185, 199, 277, 303, 337,  
 338.

- Rosinus ad Euthicium*, 235-236, 236 n.1, 287.  
*Rosinus ad Saratantam*, 245, 254, 269, 270, 271, 332, 333.  
 Rulandus, M., 298 n.29.
- Scala Philosophorum*, 57, 137-138, 141, 146, 149, 149 n.6, 236-237, 331, 332.  
 Senior, 84, 89, 90, 91, 93, 132, 143-144, 155, 220, 221, 236, 262, 290, 330, 331, 332, 333.  
 Siculus, D., 242 n.5, 275, 276-277, 332.  
 Sperber, J., 136 n.1.  
*Splendor Solis*, 19 n.37, 225 n.3.  
 Stephanos, 21, 28, 29.  
 Strabo, 183, 331.  
 Suidas, 8 n.16, 22, 61 n.8, 309.  
 Syrus, E., 128 n.1.
- Tabula Chymica*, see Senior.  
*Tabula Smaragdina*, 30, 31, 57-60, 61, 62, 65, 66, 80, 85, 138, 143, 172, 221, 239, 242, 277, 315, 330, 333.  
 Toll, J., 8 n.19.  
*Tractatus vere Aureus*, see Hermes Trismegistus.  
*Tractatus Aristotelis Alchymistae*, 234 n.5.
- Trevisanus, B., 37, 185, 207 n.1, 291, 299-300, 301, 302, 333.  
 Trismosin, S., see *Splendor Solis*.  
*Turba Philosophorum*, 16, 30, 31, 49, 69, 75, 96, 97, 98, 102, 106, 107, 120, 121, 148, 149, 150, 165, 166, 170, 178-179, 203, 230, 231-233, 240 n.1 and 2, 241, 244, 256, 268, 277, 281, 312, 313, 330, 331, 332, 333, 335, 336, 364-367.
- Valentinus, Basilius, 19, 57, 84, 87, 188, 189-190, 310, 330, 331, 367.  
 Vallensis, R., 309, 314, 317, 367.  
 Veen, J. van der, 19-20.  
 Vesalius, A., 296 n.23.  
 Victor, Hugo of St., 302 n.35.  
 Vigenere, B. de, 225.  
 Villanova, A. of, 32, 33, 120, 121 n.2, 122, 144, 155, 177, 240, 255, 281, 302, 331, 332, 367-368.  
 Virgil, 8.  
*Visio Arislei*, see *Aenigmata ex Visione Arislei*, 166 n.3, 179-180, 221 n.3, 368-369.
- Zosimos, 21, 26, 27, 28, 39.