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## Contents

- 1 Editorial
- 3 News and Information
- 5 Light on the Castle Path  
Deirdre Green ©
- 12 Dew and Dew Ponds  
Paul Baines ©
- 19 The Mythology of the Qabalah  
P. Harrill James ©
- 23 The Brave Old World of Alchemy  
Patricia Tahil ©
- 29 Robert Fludd's Great Treatise  
of Rosicrucian Science  
Adam McLean ©
- 38 Working with Practical  
Alchemy No 4  
Regular Feature
- 40 Alchemical Mandala No 17
- 42 Reviews

## Editorial

With the Hermetic Journal now in its fifth year of publication, and the Magnum Opus project well established with 13 titles produced in its three year span, I now feel the need to develop further ways of working with the ungoing momentum that has arisen out of this work. The Hermetic Journal is now, I believe, well known and respected for its serious approach to esotericism, and the solidity of the material it presents. It does not attempt a 'popularisation' of esotericism, nor does it offer naive simplifications or present an abstract and artificial systematisation of occult philosophy, preferring to unfold the tradition in all its diverse ramifications.

The Magnum Opus venture provides essential source material from the western occult tradition, and eventually will, I hope, be seen to furnish an encyclopaedic outline of this tradition. These books are of economic necessity quite highly priced, and I regret that in consequence some of my subscribers cannot afford to purchase copies (however, I might just point out that such subscribers might try to obtain copies through their local public or University Library). So with these two ongoing projects firmly founded, I am proposing two further extensions of the work.

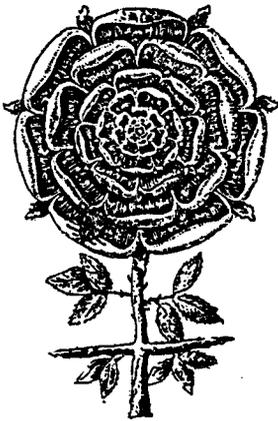
Firstly, I am to organise a series of HERMETIC JOURNAL SEMINARS, possibly yearly or half yearly, to explore in detail certain topics of interest to my readers. These one day seminars will be held in London and will give me the opportunity, I hope, of meeting with many of my subscribers. These seminars will have a formal lecture session and more informal discussion sessions where we can all share our ideas. For the first of such seminars I have chosen the theme of 'Ancient Alchemy and Modern Science', and will present some papers on the links in thought between the esoteric philosophy of the Alchemical tradition its view of matter and forces, and the experiments and philosophical ideas underlying modern particle physics in its pursuit of the ultimate constituents of matter. The links between these two domains will be explored in detail and I hope that this topic will provide lively discussion, as the implications of the discoveries in the domain of high-energy physical science are extremely relevant to an esoteric view of the spiritual foundation of the natural world. Ancient alchemy and modern science strangely meet in the laboratory of the particle physicist. Each of the seminars will be focussed upon a theme, and it would be useful if those who attend can give some thought in advance to the ideas underlying the theme.

The other development, which I hope some of my subscribers will wish to associate themselves with, is the CENTRE FOR ROSICRUCIAN STUDIES. As many of you will have surmised, historical Rosicrucianism is one of my intense interests and concerns. The establishment of this formal body will allow me to co-ordinate the work of a group of people in researching this much neglected area. There is truly so much to be done, that I can no longer pursue this on my own but

need help with the ongoing project of providing insight into the working of the Rosicrucian movement in history. This will not be an esoteric society, but a fellowship of researchers. I hope to draw potential researchers reflecting a wide range of interests and abilities into working together on special projects. There will be a public face to this work in an annual ROSICRUCIAN SEMINAR in which some of these researches can be presented. These seminars will be open to the general public and will provide a forum for the discussion of research into Rosicrucianism.

When I began publishing the Hermetic Journal over four years ago, I knew that the discipline of putting each issue together, the necessary research and the contacts this project afforded, would be of the greatest value to me personally. This I still find so, and furthermore a momentum seems to have developed in this work, an impulse that now seeks additional ways of pursuing this quest. I trust that you will find these parallel developments of interest and that I will have your support for these additional activities.

Adam M<sup>c</sup>Lean



THE  
CENTRE  
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ROSI-CRUCIAN  
STUDIES

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THE CENTRE FOR ROSI-CRUCIAN STUDIES arises out of the need to formalise an impulse which has underlain the work of the Hermetic Journal from its inception. The Hermetic Journal has often focussed upon Rosi-crucian material, recognising the necessity of making early texts and symbolic diagrams available to students of occultism and promoting serious documentary research into historical Rosi-crucianism.

The Centre for Rosi-crucian Studies will act as a formalised body to co-ordinate, and encourage people to research Rosi-crucianism. It will endeavour to unite an academic historical approach with a sensitivity to the esoteric content of Rosi-crucian material. It will not be a secret order or society but a loose-knit body of individuals sharing ideas, resources and research. Anyone who has researched this field even superficially will be aware of the vast stores of documents in libraries and special collections, that have never been fully researched, and that Rosi-crucianism provides a rich vein for the serious investigator.

The Centre for Rosi-crucian Studies will provide various resources :-

- 1) Publication of Rosi-crucian material and research notes in a series of specialist books.
- 2) A free exchange of information and contacts.
- 3) An annual meeting, probably held in London (first to be held early in 1983) under the title :-

THE ROSI-CRUCIAN SEMINARS

These will provide a forum for people to present the fruits of their researches and help to stimulate further work in this field.

Anyone who is in agreement with the objects of the Centre for Rosi-crucian Studies can become an Affiliate, however, this will not be a passive organisation but a small active group of individuals. Affiliates to the Centre should ideally bring some positive help either through sharing the results of their own researches, their abilities in translation, their access to original documents, or other means of supporting the momentum of the research.

It is hoped that this Centre will help in some way to establish the importance of this esoteric Movement for the Western Tradition, to point its influence upon outer culture and history, and the relevance even today of the profound philosophical ideas that underlie the Rosi-crucian Movement.

Anyone wishing to become affiliated to the Centre and helping with its work, please contact the co-ordinator Adam McLean.

## LIGHT ON THE CASTLE PATH

DEIRDRE GREEN ©

It has often been made evident to me that, of the fairly large number of esoteric students who use the image of the Inner Castle in meditation, visualisation, etc., only a few are aware of the wide distribution of this image in the experiences of mystics from different times and cultures, and of the significance of a parallel symbolism in mythology and fairytale. I intend in this article to explore the image of the Inner Castle or Palace in the hope that others may gain some insight or inspiration therefrom. I will be concentrating in particular on the Castle/Palace experienced as sevenfold, i.e., divided into seven rooms, or portrayed as seven separate Castles/Palaces. The bulk of my illustrations will be from Jewish Hekhalot mysticism (a forerunner of Qabalah) and from the Spanish mystic St. Theresa of Avila. Intriguing parallels may be found in other cultures and I shall point some of these out, but for reasons of brevity these cannot all be gone into in detail. Before proceeding to a consideration of the sevenfold Castle, however, it may be as well to elucidate the more general use of the symbol of the Castle Within, and of sevenfold stages along the way of esoteric attainment.

The motif of the Castle of the Inner Life is used by many mystics for example, the great German mystic Meister Eckhart speaks of the "Little Castle of the Soul", the "Castle of truth", by which he denotes the "Ground of the Soul", that innermost part of the spiritual self that is eternally united to the Divine Life and Light. Varying the metaphor, Eckhart sometimes speaks instead of the Inner Temple, House or Sanctuary, or of the strong, well-fortified City or Kingdom walled round with Light. The Inner Castle, the Ground of the Soul, is for Eckhart pure, free, perfect unity, beyond time and space, as ineffable and unnameable as God himself. Here the Godhead glows and burns like a fire in all its fullness, sweetness and rapture. God, that is, the Deity conceived as personal, as possessing certain attributes and names, and so on, cannot enter this Castle - only the naked Godhead, the One that is unchanging, absolute Unity beyond form and beyond conceptual differentiation (the "I AM"), can enter in. But in mystical insight we may ourselves penetrate into this Castle, and in so doing, we surpass God insofar as he

is defined, rationalized, limited : we enter the silent desert of the God-head to be united with the pure essence of spiritual being which is the One.(1)

The Castle as an image of the innermost spiritual self has a number of symbolic characteristics which may yield fruitful results if meditated or reflected upon. Firstly, the Castle is a holy enclosure, a temenos ; it is walled, defended, protected from the outside world. It therefore contains the spiritual energies and forces, which radiate out from its central core, the innermost self or Heart. The Castle is the self-contained self ; the energies are kept under control and concentrated and consolidated in one inner "place", so as to be available for whatever use we choose to put them to. Secondly, because it is protected and enclosed, the walled Castle is also difficult to penetrate. In mythology, it usually contains within it some treasure (denoting spiritual or magical treasure, esoteric attainment, the "pearl of great price") which is hard to obtain. The unworthy and the unready are automatically excluded from storming the Castle. Tests and ordeals must be undergone first - in mythology, the hero often has to defeat wicked or frightening monsters (aspects of the lower or darker self to be accepted and transformed) before he or she can win through to the innermost central room of the Castle which holds the Treasure. The reader may recall the trials of Arthur's Knights of the Grail Quest - tests and ordeals undergone by all mystics or Otherworld-journeying Initiates. The enchanted Grail Castle is a symbol of the Otherworld, and within it dwells the Grail Keeper, the maimed Fisher King, into whose presence only a few can come. "Many are called, but few are chosen". We will note that the King is a magical image of Tiphareth - a point which will be returned to later. A good example of the same theme in fairytale is 'The Sleeping Beauty'. The Prince makes his way through the overgrown forest to the enchanted Castle where lies the sleeping (dormant) other half of his self - the inner Heart hid within thorns. In some versions of the tale, the trees, bushes and brambles of the forest part of their own accord to let the Prince through, and close again to bar the way to others - again we see that only the worthy and appointed may approach the Castle. (2) The beautiful maiden within the thorn-girt Castle represents on one level the anima, but also the Heart as symbolic centre of the human soul, which must be "awakened" from the enchanted dream to Spiritual Reality. In some versions the Sleeping Beauty's name is Briar Rose, the rose again being a symbol often connected with the Heart Centre and with the rebirth or reawakening of the true inner self. The Inner Castle of the Heart (or the Inner Temple) is the symbolic centre of the human soul, and the centre of the Universe - the goal of the Quest - as it may be approached through the human microcosm. It lies within us, yet is girded round with thorns ; if we do not know our own Heart, and the thorns that grow therein, we shall not pass through into the Inner Temple. We shall either grow weary of the twisting and turning of the way, or fall prey to one of the perils that lie in wait. But if we can stand firm amidst the trials and testings of inner life, and make actual the self knowledge that they bring, we can find all things within ourselves at this still centre : for the space within this Temple is a vast as the Cosmos itself.

When represented mythically, the Castle (or Temple, City, etc.) is often said to be at the centre of the Universe (Omphalos/Axis Mundi) - like the World Tree. This finds its correspondence in the human microcosm in the identification of the Temple with the Heart Centre. The Grail

Keeper, the ailing King who has to be revived, as a magical image of Tiphareth, can be seen to fit neatly into this symbolic scheme, the Sephirah of the Heart Centre being at the centre of the middle Pillar of the Tree. The Castle is the inner Self ; it is also the Cosmos. Macro-cosmically, it is at the centre of the Universe ; microcosmically, it is at the centre of the self. And ultimately, we are the Cosmos - we are the Axis Mundi - microcosm and macrocosm are One. "All that is without thee also is within, thus wrote Trismosin." If we can find the tranquil centre at the hub of all movement that is our innermost self - the secret abode of the Deity within - we shall find the centre of the Universe, the Axis Mundi. We enter into a new world, a world of infinite dimensions, an enlarged sphere of awareness whose pivotal point is the centre of all life and power. This experience transcends the merely human to embrace all levels of being.

So much for the Castle. As for sevenfold stages of attainment, these are every bit as widely represented. The stages are phases of transformation, passages from one plane to another, sequences of attainment of more and more exalted levels of consciousness, degrees of Initiation by which landmarks along the way are marked out. The symbol of a ladder to Heaven, having seven rungs, is widespread. (The ladder is itself often a World Axis symbol which, in turn, connects it with the Cosmic Tree. The two sides of the ladder can be seen as the Left and Right Pillars, unified by the rungs.) In Mithraism, to give just one example, the Initiate ascends a seven-runged ladder, the rungs representing the passage of the soul through the seven planetary heavens. Other examples of sevenfold progression include Dante's journey through the seven planetary spheres in the Paradiso, and the Sumerian myth of the descent of the Goddess Inanna to the Nether World, in which she passes through seven gates. The Sufi mystic 'Attar passes through seven valleys to reach the hidden Palace of the King. (3) St. John of the Cross speaks of seven degrees of spiritual love, seven "wine-cellars" ; in the seventh and innermost cellar we may drink of the Beloved in the final, intimate union. (4) (Whether we regard these examples from different traditions as referring to the same basic experience or not is immaterial to the present discussion. Those who formulated these schemes of inner progress must at least have undergone very similar inner experiences in order to express them in such similar terms.) The reader will be aware that the number seven has many esoteric connotations. These cannot all be mentioned here ; for our present purposes it will suffice to say that seven is the synthesis of three and four, the spiritual nature and the material, hence it denotes perfection, completeness, reintegration. It may be symbolised by the cube, which has six surfaces and a mysterious, hidden seventh point within. The six surfaces are the directions, and we are to make ourselves into the seventh point - the still centre from which the directions radiate. Qabbalistic tradition speaks of the Inner Palace located at the junction of the six directions of space which, together with this centre, form a septenary. Again, the Inner Palace or Castle is the unmoving centre at the hub of all movement.

When the symbol of the Castle/Palace unites with the sevenfold progression of the Path, we have a potent and complex mapping-out of an initiatory scheme. This combined symbol, so rich in meaning, yields its message to us in life's experience and in meditation. An early Qabbalistic sevenfold division of the Tree of Life corresponded to the Seven Palaces which we shall now consider. The Supernal Triad of Kether,

Chokmah and Binah made up one "Palace" ; Yesod and Malkuth were counted together as one ; and the remaining Sephiroth had one "Palace " allotted to each. Daath, at this stage, had not yet acquired its semi-Sephirothic status. The seventh Palace (of the Supernal Triad) is situated in the most secret and elevated part of Heaven. The Zohar says of it, "There the profoundest mysteries are ; there dwells the Heavenly King, blessed be he, with the holy souls, and is united with them by a loving kiss ..." (5). I shall only be able to give a summary of the Seven Palaces in Hekhalot mysticism and St. Theresa here, but whoever wishes to pursue the theme further will find that the Sephirothic correlations will yield deep insights.

In the Judaic esoteric tradition, from visions like those described in Isaiah 6, and Ezekiel 1, 8 and 10, developed Merkavah (Chariot) mysticism. The first full-scale literary presentation of this mysticism in the post-Biblical period is in the Hekhalot (Divine Palaces) literature (mainly circa 200-700 C.E.). Later, the tradition is to some extent continued in medieval Qabalah, and in 12th and 13th century German Hasidism. Merkavah and Hekhalot teachings were a controversial issue in Judaism. They were kept largely secret, disclosed only to select esoteric groups, and warnings were circulated regarding the dangers of their misuse. The literature elaborated on the basic elements of mystical vision as found in the Scriptures (God sits on a throne, in a palace ; is surrounded by fire, wears white robes ; nearby are the Cherubim and the four Holy Creatures, etc.). But in Merkavah/Hekhalot mysticism, the Initiate ascends through seven Palaces (6). Doors or gates are encountered at the entrance to each, and the Initiate needs to know the special means to be applied to pass through them. Two Hekhalot texts, Hekhalot Zutreti (the Small Book of the Palaces) and Hekhalot Rabbati (the Great Book of the Palaces) describe the experiences of journeying through the seven Palaces. The gate of the sixth Palace is a particularly difficult threshold of testing - the literature contains warnings about the dangers involved if one tries to make this crossing when not fully prepared. The mystic (it is said in one fragment), when making the passage from one Palace to another, is like a man who loses his way in a wood and is attacked by beasts which threaten to tear him to pieces. Hekhalot literature gives detailed descriptions of the means and practices by which the passages may be made - prayers, incantations, fasts, special diets, use of magical names, magical seals to be shown to Gatekeepers or to be placed on the body (7), ritual cleansing - the texts make up a full-scale technical manual for mystical and magical explorers. Elaborate magical procedures are described, in particular, in Sefer Ha-Razim (this book is divided into seven parts, corresponding to the seven Palaces) and Sefer Ha-Malbush. All these procedures were for the purpose of protection and self-strengthening on the ascent or descent ; deviation from them could mean failure at best, or extreme psychical or physical danger (even the danger of losing one's life) at worst. Some of the magical practices bear strong resemblance to Gnosticism.

A recurrent image in Hekhalot Rabbati is the ladder which is used as a means of ascent. The text says that the Initiate is like "a man who has a ladder in his home which he ascends and descends". Very often the ladder has seven rungs, corresponding to the ascent through the seven gates of the Palaces.

An important point is that the seven Palaces are said (in Hekhalot

Rabbati) to be inside each other. Thus to penetrate to the seventh Palace would be to reach the Centre. We can picture this as seven concentric circles, the journey inward being a passing through and beyond successive veils (or "layers of the onion"), the truth becoming increasingly revealed (re- or un-veiled) as we see no more through a glass or mirror but face to face. From their inner journeys, the Hekhalot Initiates gained revelations and visions of the Deity and of spiritual truths, and insight into cosmological secrets and into the secret key to the study of the inner meaning of the Torah (Sar-Torah). (8)

Further insight into the seven Palaces may be gained from The Interior Castle by St. Teresa of Avila. (9) Teresa was a Spanish Carmelite of the 16th century. As we know, Spain had been a centre of Qabbalistic thought and activity for some time prior to this, and it has been conclusively shown that St. Teresa's family were of Jewish origin and that she tried to conceal this fact when converted to Christianity. (10) (This is understandable in view of the intense emotions aroused in 16th century Spain by questions of heresy, and the intense discrimination suffered there by converted Jews.) But to what extent did Teresa really abandon her Jewish heritage? In scholarly appraisals of mysticism she has often been regarded as one of the most orthodox of Christian mystics; but writers (although noting her Jewish background) have failed to notice the Qabbalistic/Hekhalot elements in The Interior Castle. (11) (These do require some extraction from the main body of the text, but are without doubt there.) St. Teresa is therefore an important transmitter of a major element in Western esoteric tradition - the seven-fold Castle/Palace.

The Interior Castle was written after a vision in which Teresa sees the soul as a beautiful crystal or diamond Castle, with seven mansions; in the seventh and innermost mansion dwells the King of Glory, illuminating and beautifying all the other mansions by his presence. Each of the mansions has many rooms and many doors or ways of entry; there are also gardens, fountains and mazes. The nearer Teresa gets to the centre, the stronger is the Light. Outside the Castle bounds everything is foul, dark and infested with toads, vipers and other venomous creatures (the lower aspect of the self to be overcome - the "monsters" that the Initiate has to defeat). Many souls remain in the outer court of the Castle; they are not interested in entering it, and have no idea what is in that wonderful place, or even how many rooms it has. Teresa calls the Castle a "tree of life, planted in the living waters of life" (Ps. 1:3) - echoes of the Axis Mundi again. She uses the image of the Sun to represent the God within the innermost mansion of the Castle - more connections with Tiphareth, and with the centre - the Sun as centre of the solar system, the Heart as centre of the self. The soul, she says, may leave the spring of the living waters of life and root itself in black, evil-smelling water. But the spring, or the brilliant Sun at the centre of the soul, do not lose their splendour and beauty (nothing can take away our essentially divine nature). But it is as if a black cloth were placed over a crystal in the sunshine, so that, although the (outer) Sun may shine upon the crystal, it will have no effect. The tree does not bear good fruit. The rooms of the Castle are in a poor state, their stewards and governors (the "faculties" of the soul, or the various aspects of the self) are blind and ill-controlled. Teresa sees the innermost seventh mansion as surrounded by all the others - our concentric circles image again. She says it is like the empyrean heaven at the centre, which, unlike all the other heavens,

does not move - the unmoving quiet centre which I have described, which remains at peace beyond the buffetings of external life. "A king is living in his palace," says Teresa, "Many wars are waged in his kingdom and other distressing things happen there, but he remains where he is despite them all." The Interior Castle is an account of Teresa's stages of mystical realisation as she roams from room to room progressing from the first to the seventh mansion, in which at last she is united with the King in Spiritual Marriage. The soul, she says, must be allowed to explore all the rooms, above, below and on either side. Each soul is "an interior world, wherein are the many and beauteous Mansions that you have seen." But again, it is only the worthy and prepared who can enter and explore : if we meet any resistance, we must not try to force an entry. We have to be constantly alert for the enemies at the gate who may breach the fortress at some weak spot, and for the venomous beasts who may try to reassail us. Like the Hekhalot mystics, Teresa speaks of great trials and deep sufferings in the sixth mansion. It is a major threshold encountered after going through the mystical death and rebirth in the fifth. We cannot look back from this point. If we fall, we are in the depths. The sixth mansion is a time of purification through suffering, through a wounding with an Arrow of Fire.

A thought-provoking parallel to all this is found in the East in the writings of Ramakrishna. He also makes use of the image of a seven-roomed Palace within which, in the inmost room, dwells a King. "Strangers have access only to the lower apartments ; but the prince, who knows the Palace to be his own, can move up and down from floor to floor." (12) Avatars (Divine incarnations) and others well advanced along the Path, can climb to the roof, come down again by the stairs, and move about on the lower floors. (This I take to be an expression of the fact that the adept has freedom to pass back and forth across the various thresholds at will. Also, that after realisation - "climbing to the roof" - we "come down again and move about on the lower floors" - that is, we now see the lower realm as inherently divine, or as manifestations of divine energy, and we undertake the "return to the world" to bestow upon others what has been revealed to us.) Ramakrishna connects his symbol of the sevenfold Palace with the seven planes of Tantric meditative and ritual practice. Contact with each of these planes produces a specific type of spiritual experience. Tantric and Yogic writing speak of the Kundalini power, the divine energy, coiled up like a serpent at the base of the spine. By meditative exercises and other disciplines it is made to rise up the spinal column, passing through the various chakras, and its progress through the different stages is characterised by distinct phases of inner experience, insights and visions. Kundalini Yoga and Tantra bear certain resemblances to Western magical practice (although the Eastern Chakras do not correspond exactly with the Western centres of energy). We certainly have a very close parallel with the Hekhalot/Qabbalistic tradition in Ramakrishna's symbol of the sevenfold Palace. This can only be explained by assuming he underwent the same basic inner experience as the Hekhalot mystics and St. Teresa. It is true that Ramakrishna experimented with a number of different esoteric paths, but his knowledge of the deeper aspects of the Western tradition was minimal, and I consider it highly unlikely that he would have encountered the image of the sevenfold Castle anywhere other than in the recesses of his own inner self.

The image and the inner experience of the Castle are available to us all ; each of us, as St. Teresa says, is an interior world wherein

are these many and beauteous mansions. We are each of us a microcosm embracing every level of reality, a pattern of all the worlds. We must follow the sevenfold Path to find the King in the inmost room of the Castle, to be united with the King (or to realise we are the King) and to rule our Inner Kingdom. The Sleeping Beauty, at her christening, before she falls into her enchanted sleep, is given gifts by seven Fairy Godmothers and hence has "all the perfections imaginable". (13) The sevenfold Path must be followed to perfection until our sleeping soul, containing within itself in potential the synthesis of all seven gifts, all seven mansions, all seven powers, is awakened. The journey is one of joy, of sorrow, of danger, of great beauty, into depths where long-hidden limitations and resistances must be overcome, long-lost powers reawakened. The worlds that we encounter are realms both of priceless treasure and of trials, ordeals and sufferings. The winding path that leads to the Castle is unknown yet dimly recognised, and opens ever wider before us as we journey along it. May we have the courage and strength to survive our ordeals in safety, to cross our thresholds, to win our Treasure and bring it back to this world, thus to turn Earth to Heaven.

#### NOTES AND REFERENCES

- (1) A number of Eckhart's sermons referring to the Inner Castle can be found in Meister Eckhart : A modern Translation by Raymond Bernard Blakney (Harper and Row, New York, 1941).
- (2) E.g., Perrault's version - see The Classic Fairy Tales by Iona and Peter Opie (Granada, St Albans 1980).
- (3) See 'Attar's poem 'The Colloquy of the Birds'".
- (4) See Commentary, xxvi, to St. John of the Cross' Spiritual Canticle.
- (5) Zohar, ii, 97a ; i, 168a.
- (6) There are usually seven heavens through which the Initiate ascends, though not invariably. Merkavah/Hekhalot mysticism was not a unified system but a loose-knit body without rigid dogmas. Hence the precise details vary from one account to another.
- (7) One text gives a description of how the mystic puts seven seals on the body : on the (right?) leg, heart, right arm, left arm, neck, top of the head, and one "to protect the body" (?) Compare the Qabbalistic centres. I surmise that Song of Songs 8 :6, "Set me as a seal upon your heart, as a seal upon your arm", refers to such a practice.
- (8) Very few Hekhalot texts are available in translation, but further information on the Hekhalot tradition and texts may be found in Apocalyptic and MerKavah Mysticism by Ithamar Gruenwald (Leiden/Köln, Netherlands, 1980).
- (9) This may be found in The Complete Works of Saint Teresa of Jesus, Vol.II, trans E. Allison Peers (Sheed and Ward, London 1946).
- (10) See 'Saint Teresa and the Jewish Question' by Gareth Alban Davies, in Teresa de Jesus and Her World, papers of a conference held at Trinity and All Saints' College, Leeds 1981.
- (11) I am myself preparing an academic article on this subject, to be published shortly.
- (12) See The Gospel of Ramakrishna, p 524, p 821 ; trans., Swami Nikhilananda (Sri Ramakrishna Math, Madras, 1969).
- (13) Iona and Peter Opie, op.cit.

## DEW AND DEW PONDS

PAUL BAINES ©

John Tyndall, the physicist, some ninety years ago during his lectures on heat at the Royal Institution, referred to the phenomenon of dew as one 'of great beauty and interest'. This phenomenon had given rise to many speculations and theories and in 1818 the London Physician, Dr Wells, published his essay on the theory of dew. His experiments were carried out in his garden some three miles from Blackfriars Bridge. The experiments consisted of exposing small bundles of wool, weighing 10 grains when dry, to the air on a clear night. The amount of dew deposited on them was determined by the increase in their weight. He discovered that the deposition of dew could be inhibited by placing a board, bent to the form of the roof of a house, between the wool bundle on the ground and the view of the sky. By placing one wool bundle beneath the board and a second unshaded, he observed that the latter gained 16 grains in weight while the former gained only 2 grains. Further experiments with thermometers apparently showed that dew is the result of condensation of atmospheric vapour on substances which have been sufficiently chilled by radiation and that this radiation can be inhibited by anything which forms a screen between the ground and the sky, such as clouds. Different substances vary widely in their radiative power ; metal for instance is a poor radiator and remains dry when exposed to the clear night air, whilst glass and vegetation are good radiators and become covered with a copious deposition of dew. Thus, according to Wells, the criteria for a copious deposition of dew are a good radiating surface with thermal insulation ; a clear sky and still air. It is Wells' theory that has become universally accepted as the true theory despite its shortcomings. Note that in the experiment where he shielded a wool bundle from the sky, it still gained two grains in weight.

In 1885, John Aitken of Falkirk showed by experiments carried out in Scotland, that dew, or at least a proportion of it, arose from the earth. Certainly the large dew drops which appear on the leaves of plants are probably due to transpiration, since living plants are continually releasing water vapour into the atmosphere via the stomata

situated in the epidermis of the leaves. As evaporation takes place, water is drawn by suction up the xylem or water conduction tissues of the plant. Water enters the root from the soil since the suction pressure is greater than the osmotic pressure of the soil solution. The amount of evaporation from leaves is governed by the degree of opening of the stomata. Stomatal opening is affected by light, humidity and temperature although many plants have a rhythm of stomatal opening which is independent of external factors.

Aitken added a further criteria to those of Wells regarding conditions for obtaining a copious deposit of dew, namely a warm, moist ground or other source which will supply moisture to the surface layer of air. Condensation from the atmosphere alone is limited, and without a continued supply of moisture, the dew point would gradually get lower as water was deposited. From Aitken's observations it can be seen that a state of distillation exists between a warm, moist ground and the cold surface layer of air. The formation of dew, therefore, is more complex than at first may be imagined.

From an alchemical point of view, etheric forces (Life and Chemical Ethers) arise from the earth and vegetation before dawn and in some way become entrapped in the condensing water vapour. When the dew evaporates, so the forces are released again to continue their upward journey. The peculiar structure of the water molecule is such that water has the abilities to hold such energies ; in fact it was known to the ancients that water acted as a good storage battery for etheric and psychic forces. Many examples of this property of water can be found. Baron Reichenbach, after exposing water to sunlight, found that it produced a peppery like burning sensation in the mouths of psychically sensitive subjects who drank it. Edwin Babbitt in 'The Principles of Light and Colour' describes his Chromo lenses of different colours which he used to charge water with sunlight for healing purposes. George de la Warr photographed the image of a cross in a drop of 'blessed' water using a radionic camera. Dowzers recognise that underground streams carry an energetic charge which is responsible for the various dowsing patterns which are described at great length by Guy Underwood in 'Patterns of the Past'. Water can also carry negative force, as is the case with 'black' streams which are known to carry an energy analagous to the 'Ska' of acupuncture and which has an inimical influence on living things, such as inducing disease.

Of the various forms of water occuring in nature, the alchemists placed a particularly high value on dew, no doubt because it contains an abundance of the finer etheric forces which can be separated and fixed in the laboratory for the purpose of producing high potency medicines.

The first problem facing the alchemist is top collect sufficient quantities of dew for the work throughout the rest of the year, a task which the Mutus Liber directs must be carried out during the period of Aries and Taurus. Several methods of collecting dew have been proposed over the years.

The classic method is that depicted in Plate 4 of the Mutus Liber in which spotless white linens are staked out in a grassy meadow on calm, clear nights. Although this method is the most desirable it does have practical drawbacks. Experiment has shown that a saturated linen sheet gives only a small yield of water when wrung out. Also, few of us have access to a meadow where we can stake out linens all night.

A similar method is described by Francis Galton in 'Art of Travel' for collecting rainwater and dew for drinking. He proposed that 'a cloth or blanket may be made fast by its four corners, and a quantity of bullets ! thrown into the middle of it ; they will cause the water that it receives, to drain to one point and trickle through the cloth into a cup or bucket set below'. A few pebbles could be placed in the centre of the linen and a non-metal container used to collect the dew.

Galton also mentions that 'the Australians who live near the sea, go among the bushes with a great piece of bark, and brush into it the dew drops from the leaves with a wisp of grass' ; and, 'the storehouse at Anga Pequena in S.W. Africa, in 1850, was entirely supplied by the dew deposited on the roof'.

An architect, Mr. S.B. Russell, some fifty years ago, constructed an experimental dew reservoir in Hertfordshire which collected considerable quantities of dew. He claimed that larger versions of the reservoir could collect and store 12,000 - 60,000 gallons of dew. It seems very probable that dew collected on roofs or in reservoirs such as this would be devoid of all the important etheric qualities which arise from the Earth and vegetation and would therefore be of no use for alchemical work.

The most practical method of collecting dew for alchemical purposes was that devised by the late Armand Barbault, who dragged lengths of linen across the grass on dewy mornings before dawn. This method, he reckoned, provided a litre of dew for every fifty metres of grass over which the linen passed. Barbault admits that the method shown in the Mutus Liber is preferable as the dew collected is of a purer, more etheric composition, whilst the advantage of his own method was that larger quantities could be collected. For practical dew collecting, two 6 foot lengths of linen, approximately 18 inches wide must be sewn together to form a loop. This double thickness of linen can then be dragged along the grass by passing a suitable length of dowel through the material and attaching a long cord handle. Other essential equipment includes a plastic bowl, funnel and 1 gallon containers (all preferably new and not used for other purposes). It would be well to spend some time in advance locating a suitable, fairly isolated, site for collecting dew. This sort of task demands rising early in order to be at the collecting site an hour before dawn. Choosing a suitable morning is simple enough and depends firstly on the weather, which should be calm and clear, and secondly, on humidity. The latter can best be determined with a wet and dry bulb hygrometer. The greater the temperature difference between the two thermometers, the drier the air. When both thermometers read the same, the atmosphere is saturated and prospects of a heavy dew are good. Dew point can be calculated using the following formula :-

$$f = f_i - 0.00077 (t - t_i)h$$

where  $f$  is the vapour pressure ;  $f_i$  maximum pressure corresponding to the temperature of the wet bulb thermometer ; 0.00077 is a constant;  $h$  barometric height ; and  $t - t_i$  is the respective temperatures of the dry and wet bulb thermometers.

E.g.  $h = 750\text{mm}$  ;  $t = 15^\circ \text{C}$  ;  $t_i = 10^\circ \text{C}$  ; and according to table of pressures  $f_i = 9.165$ .

$$f = 9.165 - 0.00077 \times 5 \times 750 = 6.342$$

This pressure corresponds to a dew point of  $4.5^\circ \text{C}$ .

*Pressures of aqueous vapour from - 10° to 104° C.*

Temperatures	Pressure in millimetres						
-10°	2·078	12°	10·457	29°	29·782	90°	525·45
8	2·456	13	11·062	30	31·548	91	545·78
6	2·890	14	11·906	31	33·405	92	566·76
4	3·387	15	12·699	32	35·359	93	588·41
2	3·955	16	13·635	33	37·410	94	610·74
0	4·600	17	14·421	34	39·565	95	633·78
+ 1	4·940	18	15·357	35	41·827	96	657·54
2	5·302	19	16·346	40	54·906	97	682·03
3	5·687	20	17·391	45	71·391	98	707·26
4	6·097	21	18·495	50	91·982	98·5	720·15
5	6·534	22	19·659	55	117·479	99·0	733·91
6	6·998	23	20·888	60	148·791	99·5	746·50
7	7·492	24	22·184	65	186·945	100·0	760·00
8	8·017	25	23·550	70	233·093	100·5	773·71
9	8·574	26	24·998	75	288·517	101·0	787·63
10	9·165	27	26·505	80	354·643	102·0	816·17
11	9·792	28	28·101	85	433·41	104·0	875·69

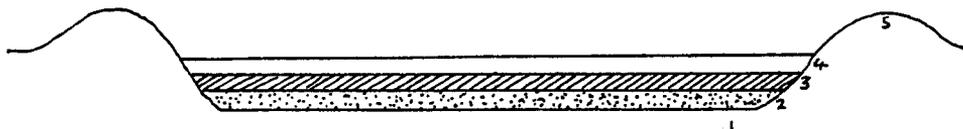
A simple method to assess the extent of dew deposition is to place a bottle and/or a piece of linen on the front lawn or other convenient spot and checking it at least an hour before dawn. This can save a wasted journey to the collecting site when dew fall is minimal.

So far this Spring, ideal conditions for dew collecting have not prevailed in S.E. England. Although there were a couple of clear, calm weeks in April, the humidity was low.

An interesting aspect of dew can be found in the study of Dew Ponds which occur largely on Chalk Downs in Sussex and Wiltshire. These enigmatic ponds, despite their shallowness, retain water during the hottest Summer. Many dew ponds have fallen into a state of disrepair, but there is a working dew pond near Chanctonbury Ring which has been maintained by the Susses Downsmen Association. The origin of these ponds remains obscure ; some authorities believe them to be as recent as the 18th century, whilst others suggest that they are neolithic. The latter suggestion is based on the fact that dew ponds are frequently associated with sacred sites i.e., S.W. of the West Kennet Long Barrow at Avebury ; near Stonehenge ; Belas Knapp ; Chanctonbury and Cisbury Rings. The construction of dew ponds was supposed to have been a secret known only to a few specialists. Such a specialist was the Bedfordshire dew pond maker who advertised in the 1920's and also offered dowsing among his services. Alfred Pugsley in 'Dewponds Fact and Fable' speaks of a wandering band of workmen who travelled the country building dew ponds for anyone who employed them to do so. These workmen bear some similarity to the Medieval Freemasons who travelled Europe, planning and building the great cathedrals. It is one of the beliefs of Freemasonry that these builders were in possession of secret knowledge related to building.

The physical structure of a dew pond is no secret and it is known that several modes of layering were used. The diagram shows a cross section of a typical dew pond.

## Cross Section of Typical Dew Pond



- 1 Chalk bed or Subsoil
- 2 Impervious clay layer
- 3 Straw layer
- 4 Hard top layer
- 5 Rim of excavated material

The secret aspect of dew pond building was probably connected with the locating of the ponds ; a suitable site being selected by dowsing. Guy Underwood states that dew ponds, like monoliths, 'are always located within primary spirals, and mark important blind springs'. The bank or rim formed from excavated material is shown to mark an aquastat spiral and the pond itself to mark an important water line terminal. If this be so, then the location of dew ponds bears a relationship to concentrated foci of Earth force and the water therein would be rich in etheric qualities.

The question which had puzzled investigators for years was how the ponds retained water during long, hot summers. It was assumed that they were replenished by dew but the natural mechanism by which they filled remained a mystery. Several theories had been proposed, one being that after night fall there is a substantial lowering of the temperature of the puddled margin around the pond and that this reduction frequently brings the temperature below dew point. At the same time the water loses its heat until dew point is reached and the pond receives moisture direct from the atmosphere. It was also held that straw was placed under the the pond foundation so that the rising heat from the Earth may be cut off from the pond to prevent it interfering with the radiation from the surface of the pond.

Results of dew pond investigations carried out by Commander E.A. Martin on the South Downs in 1908 indicated that the ponds were not fed by dew. Observations using fourteen thermometers were carried out on favourable nights in August when humidity was high. It was shown that on most occasions the water in the pond remained above dew point. Even when the air at the surface was below dew point it would be impossible for dew to be deposited. On four occasions only, over a period of three months, did the temperature of the water fall below dew point. It was concluded that the minute quantity of dew reaching the pond in this way was not significant in maintaining it. That dew runs into the ponds from the surrounding grass has been discounted since the pond margins are more or less permeable, absorbing water before it reaches the pool.

The main source of water in dew ponds is from rainfall. The total annual rainfall would be sufficient to fill a typical pond provided that rain fell for most of the summer months. Although rainfall is fairly regularly distributed throughout the year, nine tenths of total annual evaporation takes place during the six summer months. While rain is the chief source of water, it is too irregularly spread over the year to pre-

vent the ponds drying up frequently if this were the only source of water. The other source of water, if it is not dew, must be from mists, fogs and low lying cloud. An experimental pond made by Mr Martin on Claydon Down, Sussex, showed a rise in water level on occasion when there was no rain. These rises were found to correspond to the existence of night fogs and early morning mists.

Analysis of dew pond water shows it to contain a high level of sodium chloride. The lowest proportions of sodium chloride are found in ponds furthest from the sea. Sea salt can sometimes be carried a great distance inland as a finely divided spray. This finely divided salt acts as nuclei for fog droplets, some of which become deposited by gravitation into dew ponds as the mist passes over. It has been suggested that the deposition of aqueous vapour on the surface of ponds is due to the electrical condition of the atmosphere. Since every mist particle is charged, the immediate surface of the Earth over which the mist drifts receives an opposite charge, which causes the mist particles to discharge. Thus the fall of mist particles is a result of their electrical discharge. A curious phenomenon was reported by Slade, who observed in August 12th 1876, a thick mist collected over a dew pond which was blown away leaving a trail of dew in its path.

E.A. Martin, in concluding his paper on dew pond experiment, remarks that the mystery of the dew pond is no longer a mystery. The mystery, however, does still exist if the observations of dowers are taken into account. Blind springs (points where underground streams intersect) are a frequent dowsing feature on sacred sites and may be regarded as etheric organs or centres of Earth force, which are often marked by such structures as monoliths, dolmens, tumuli, and church altars (altar springs). Why then, should dew ponds be located over blind springs? What was their function in relation to sacred sites? Do blind springs in some way attract mist particles and aqueous vapour to the pond by mechanisms as yet undiscovered?

Underwood relates a remarkable phenomenon associated with stone 51, one of the stones of the great horseshoe at Stonehenge, and is situated over a blind spring. This stone has a hole some 4 inches in diameter and 2 feet deep, which always contained water and never dried up during drought. This hole was frequently being cleared of rubbish and on several occasions was syphoned out only to fill up again in a short time with clear water. Rainfall alone would not have been sufficient to keep it filled and therefore some other source must be involved. It is probable that stone 51 and its lintel were intended as a condenser providing a small but permanent supply of water, perhaps for ritual purposes. Water vapour could have condensed on the upper surface of the lintel and drained down a vertical crack connecting it to the hole. Today the hole is filled with cement and the top of the lintel covered with plastic; an act of vandalism committed by ignorant authority.

These questions together with others must, for the present, remain unanswered. Research to date has not uncovered any legends or folklore relating to dew ponds which might yield further clues as to their operation and purpose. Despite the researches and conclusions of E.A. Martin it is felt that the mystery of the dew pond still remains.

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# THE MYTHOLOGY OF THE QABALAH

A partial consideration  
of Raphael Patai's 'The Hebrew Goddess'

P. HARRILL JAMES ©

Both Christian and Jewish Qabalists generally consider the personifications inherent in the Tree of Life as purely mystical speculations, whose only purpose is to clarify relationships between forces. Those of us who work with the Tree of Life usually give little thought to its divine persons, further than the notion that the magical image of each sephirah is a helpful meditation tool. More common is the "placing on the Tree" of other myth systems. The Zohar and related works, however, personify Chockmah, Binah, Tiphareth, and Malkuth into a family group of Father, Mother, Son and Daughter in vivid detail. In fact, Raphael Patai, in a chapter of his book The Hebrew Goddess, argues that these basic Qabalistic works clearly cross the tenuous line from abstract mystical symbolism into the realm of narrative myth.

He claims, first, that the accounts given of the vicissitudes and relationships of these four are too detailed, and too human, to portray only the lofty realms of symbolic thought ; and second, that they closely parallel those of other tetrads of gods, indicating an exchange mythical influence.

No doubt some Qabalistic scholars of both camps would find his assertions shocking and dangerous. The first statement puts the Qabalah perilously close to polytheism, while the second implies an unwelcome family resemblance between Judeo-Christian heritage and the religions of Gentiles and heathens.

A more moderate view recognises that the train runs both ways : just as mystical personification can be carried away by its own anthropomorphism, so mythical storytelling is generally subject to mystical elevation. In fact, there are many adherents to the idea that there is no such things as a mythical narrative which lacks mystical symbolism, and that the two terms are, in practice, synonymous. Mythical embellishment in this view is merely that : embellishment, to capture the sympathy the imagination, the faith.

For this reason, it may be instructive to examine the comparisons which led Patai to assert that the Zohar presents a Qabalistic mythology

Among the mythologies Patai uses for comparison are Egyptian, Sumerian, Greek, Canaanite and Hindu. In each case there is a central family group of Father, Mother, and either Son and Daughter or two sons. The members of each tetrad represent primal concepts such as Sky, Air, Water, Heaven, Earth, Fertility and the abstracts War, Love, and Wisdom. The table below demonstrates the degree of similarity (all are in the order Father, Mother, Son and Daughter, except where the final deity is a son, as noted) :

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QABALAH	Egyptian	Sumerian	Canaanite
Chockmah-wisdom	Shu-air	An-heaven	El(God)
Binah-(sea)	Tefnut-moisture	Ninhursag-earth	Asherah-sea
Tiphareth-(heaven)	Geb-earth	Enki-water	Baal-rain
Malkuth-earth	Nut-sky	Enlil(son)-air	Anath-love/war

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Greek	Hindu
Cronus	Shiva-male fertility/storm
Rhea	Shakti/Parvati/Kali-female fertility/love/war
Zeus-storm	Ganesha-wisdom
Hera-fertility	Kartikeya(son)-war

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The first idea which reappears again and again is that the Mother and Father are joined in constant and permanent union. This is expressed repeatedly in the Zohar : "They never separate and never leave each other. They are together in complete union." "They unite in a single embrace, and never separate." "They are found in union all the time." So close is their union, in fact, that "when they united, they appeared veritably as one body", i.e., the Divine Androgyne, who appears also in Zoroastrian mythology as Zurvan, Father/Mother to Ormazd and Ahriman. Their union is necessary to the cosmic order, a theme which sometimes applies to the Son and Daughter instead or as well. It is said in Hindu mythology, "If Shiva is united with Shakti, he is able to exert his powers as Lord ; if not, the god is not able to stir." Likewise are Heaven and Earth joined in the persons of Geb and Nut, An and Ninhursag, Tiphareth and Malkuth. Of the latter two, under the names the King and the Matronit, the Zohar says, "The King without the Matronit is not a king, is not great, and is not praised". The Son and Daughter are sometimes brought forth joined together, to be separated later. The Qabalistic Son and Daughter share this attribute with Geb and Nut of Egyptian mythology, who were separated by their father Shu. In both the Sumerian and the Qabalistic myths, the Father brings forth the Mother first of all, and only then do the two proceed to bring forth their children as well.

Another element common to most of the myth systems listed above is the relative importance of the Son over the Mother and Father. In Sumeria, Enlil became "Father of the Gods" and "King of All Lands", and the Canaanite Baal became "Prince" or "King". Likewise, Ohrmazd became ruler of all things, as a gift from his father/mother Zurvan. Zeus's overthrow of Cronus is familiar to all. The Qabalistic equivalent is found in the emphasis placed by the Zohar on the Son and Daughter.

They are discussed at great length compared to the space devoted to the Father and Mother, and they are identified with God and Israel.

The above all remain somewhat abstract, and can be reduced with more or less ease to theological meanings ; yet they show clearly the similarities between the Zohar and other myth systems. To return to Patai's other hypothesis, however - that Zoharatic descriptions are too human to be merely symbolic - there are further likenesses to other mythologies that point this up. For example, while the Mother and Father live in constant love and companionship, the Son and Daughter are subject to quarrels and separations. The Father loves the Daughter exceedingly, to the point of arousing jealousy in the Mother ; meanwhile the Mother suckles the Son well into his adulthood. There are numerous passages in the Zohar and related early Qabalistic works where the intercourse of the Mother and the Father, or the Son and the Daughter, is described in graphic detail. Taken on their own, these passages strongly suggest that Moses de Leon, who wrote the Zohar, and the other writers are speaking of mythical personages, not of theological abstractions. Compared with elements of other myth systems, they show a striking degree of similarity.

Interestingly, the weakest element of Patai's argument for the relationship of the Qabalistic tetrad to other mythologies is his failure to explain adequately Moses de Leon's access to knowledge of other tetrads. A reputable and rather secularly oriented scholar, Patai adopts the currently accepted position that Moses de Leon composed the Zohar personally, using only snips from Midrashic literature and the occasional small thread running as far back as the first centuries A.D. Patai suggests, rather questionably, that knowledge of Hindu mythology could have reached Spain through the Middle East, as so much knowledge did at that time. He makes no attempt, however, to explain de Leon's knowledge of the ancient tetrads he cites, information on some of which was lost for millenia until our own century. No strong conclusions can be drawn from this tenuous connection, of course ; but the evidence suggests the possibility of contemporary borrowings or a common source. In other words, it is another piece of the puzzle of the history of the Qabalah, and seems to fit in with the notion, claimed by so many, of an oral tradition, large chunks of which were handed down from very ancient times.

This speculation is, however, a diversion. The primary intent of this discussion is to demonstrate that the Qabalah contains its own inherent mythology, before any other is "placed" on the Tree. An understanding of this family group illuminates much, and may help the student in visualisations of sephiroth, in analysis of the structure of the Tree, and perhaps in construction of ritual.

For example, the polarity between Tiphareth and Malkuth as Brother/Husband and Sister/Wife sheds light on the relation between "heaven" and "earth", that is, the spiritual and material worlds. Microcosmically, it illustrates the close and necessary interaction that must ideally take place between the incarnationary personality (Malkuth) and the evolutionary personality (Tiphareth). This vertical polarity contrasts to the horizontal polarity of Binah and Chockmah, suggesting one way in which the worlds of Yetzirah and Assiah carry out the conceptions of Briah. It also strongly reinforces the doctrine that all the sephiroth are equally holy.

In ritual, the tetrad could be placed in the quarters, thus creating

a consistently Qabalistic framework. Or, when invoking a single sephir-othic form as the enlivening power of the ritual, these personifications offer possibilities for greater definition and vividness.

Naturally, the Zohar itself would provide the interested student with a greater wealth of description and detail, and would doubtless suggest further applications.

Again, the line between abstract thought and anthropomorphism is sometimes very thin. Consciousness different from our human thought and feeling is very difficult of definition by our mental processes ; consciousness far above our level is of a type that renders meaningless our intellectual distinctions of Personhood, Symbol, and Abstraction. How much trouble has been caused over the moot point of whether that Voice that changed our lives was Jesus of Nazareth, the Lady Isis, or the Lord God Jehovah ! At times it is helpful to distinguish the Christ Force from the Feminine Presence ; but to say that one is "real" and one "unreal" - or worse, "outdated" or even "demonic" - is a deadly projection of one's own inner conflicts.

The beauty of the Tree of Life is that it balances the major cosmic/psychic forces in a relatively clear and simple manner. An understanding of how that most abstract of schemas functions also in the manner of myth illuminates another side of its energies and broadens our base of understanding.

# THE BRAVE OLD WORLD OF ALCHEMY

PATRICIA TAHIL ©

To study an alchemical text is to enter by a time-machine into a strange world, whose familiar words have unfamiliar meanings, its unfamiliar ones unsatisfactory explanations, generally baffling, fascinating and obscure ; which is not altogether surprising, because its roots reach back to the heroic days of the Neolithic scientific and technical revolution, when the framework of society as we still know it was settled, with its cities and classes, laws, weights and measures, agriculture and civil engineering, Gods and Governments. All this was accomplished four thousand years ago.

Then something happened, for although the claim that there were no advances in chemistry between 1500 BC and 1500 AD is a gross exaggeration, it makes the point that chemically based techniques such as dyeing, metallurgy, glass-making, lost both theoretical and practical momentum after about 300 BC to such a degree that even by our Middle Ages, the only theories available to a European alchemist were a compound of Classical and Christian notions, mostly devised by men who despised using their hands (the legacy of slavery), and considered that the best way to spend one's life was in praying to get into Heaven after death (the legacy of the frightful social upheavals caused by the demise of the Roman Empire), scarcely suitable for such a very practical subject.

So rigid was this Christian-Classical mishmash that the Establishment of the day, meaning the Christian Church, did not tolerate anything beyond the gentlest modification of it, and strongly discouraged any pursuit that might lead to an upset. Not that the alchemists minded. They were quite happy to equate human and chemical affairs, to talk of animal and mineral spirits, and the Soul of the World, for the doctrine that everything was composed of an alliance of three elements, a Body, and a Soul, and a Spirit, was orthodox.

Bartholomew Anglicus, writing in the thirteenth century, gives a good account of it, as far as the spirits in humanity were concerned. "Spirit" was first gendered in the liver by boiling and smoking of the blood, where it was called natural spirit, responsible for growth and

found in animals and plants alike. From here it passed on to the dens of the heart, where, by striking and smiting the parts thereof together, it became purer and subtilised, and was called the vital spirit, common to all animals and responsible for motion. Next it went up to the dens of the brain, where it was more subtilised, and became the animal spirit, "animal" from "anima" or soul. We should not believe, he says, that these spirits are the same as "Man's reasonable soul", but rather its "car and proper instrument", and when they are impaired, "the accord of body and soul is resolved", as we see in madmen and those who are frantic or amazed.

One of the time-machine effects is nicely illustrated here. English has changed over the centuries. Resolved is 'untied' or 'loosened', animal is 'having to do with the soul', and elsewhere Bartholomew speaks of the virtues of the body, meaning its abilities or powers.

Since it was a scientific fact that everything was in another sense composed of Air and Earth and Fire and Water in varying proportions and degrees of purity ; Spirit and Soul were allotted Air, Water and Fire between them, leaving Earth for the composition of the Body. These four elements, as they were called, were the brainchild of Empedocles of Agrigentum in Sicily, improving on the original Mist, Water, Earth and Fire of previous Greek natural philosophers. He lived in the middle of the fifth century BC, and is popularly supposed to have died by jumping into Mount Etna.

So these spirits, both wet and dry, went round the pipes of the body, like air in organ pipes, or water in the pipes of hydraulic automata, and were the cause of thoughts, emotions and various bodily states. Drunkenness, for instance, was caused by too much moisture rising to the brain and wetting one's thoughts, an idea that Daniel Mylius, writing in the early seventeenth century had in mind when he says "All thoughts shall perish, that is the rule of moisture."

"Good" souls, containing much fire, rose quickly to the Fire in the sky, like a dry smokeless vapour, while a "bad" one, full of water and earth, had difficulty in rising, or might even roll downwards, attracted to the Earth itself, like chimney-smoke on certain still days, or fogs rolling over water. When one's liver burned bright and clear, the spirits it produced in the blood and had no trouble in rising, warm and dry, to the brain, making one feel cheerful or "high-spirited". When the liver was choked with unsuitable fuel, and burning smokily, the thick moist spirits produced, made one feel low-spirited.

Since like attracted like by Love, the reason that seeds no longer germinated after they had been heated was that their little souls, "exhaled in the fire", the external fire attracting and drawing out the internal, leaving only the lifeless body.

Life being equally dependent on fire and moisture, the neat and economical theory was developed, well before Classical times, that the brain, the spinal cord (both semi-liquid in life), the synovial fluid in the knees, the elbow joints, and a man's semen all belonged to the same system. Therefore Roman fathers took their children on their knees to acknowledge paternity. Therefore, a Roman writer could say of a senator and a prostitute, "He diminished his head with her". Therefore, in hot weather, women were keener to make men part with their precious life, and thirsty men were "less able". Therefore, too, women had less soul-stuff than men.

In the mineral realm things were similar, though not identical, for here the spirit was not the car of the soul, but rather was held on or in to the body by the soul acting as a glue, cement, or chain. The watery steams and smokes that first rose from a substance on heating were considered its Spirit, also called Water, or Air, or Vapour, or Phlegma, or Moisture, or Mercury. The Soul, unable to hold on to the Body any longer, was the next to arise, and was a Sulfur, an Oil, Blood or Balsam, Innate Heat, Form, Fire, or the Band of Union. What was left behind was Earth, or Calx, or Salt, Ash, Vitriol, Caput Mortuum, Body, or, if it fused, Glass.

Only an ignorant puffer, however, would think of baldly writing exactly what he had observed in the laboratory, no more no less, as a modern experimenter is expected to do. A true scholar, who had his reputation to preserve, would employ the results to support the theory of the oneness of human and chemical reactions, and as the basis for a piece of fine prose. He might even break into verse. Modern researchers, who also work to theories, have been known to suppress unfavourable evidence, but the practice is frowned upon. Besides, when work is published, other researchers repeat it, this providing a check.

Consider the result of heating some ordinary blue copper sulfate, preferably in a Pyrex glass tube, so that all is clearly visible. First it sizzles and turns white, emitting "steams and smokes" as it loses its water of crystallization, then, if heated really strongly, it fumes more and turns black. If both lots of steams and smokes are collected, condensed, and added back to the black residue, there is at least a partial regeneration of the blue copper sulfate. This is chemistry.

Expressed in good alchemical style, it might read like this :- Let Venus in her blue robe be subjected to Vulcan's hot embrace. He strips her robe, she struggles and cries, and exhales her spirit, yet still he continues to savage her white corpse, drinking her warm blood and mangling her till nothing but her bones are left. So great, however, are the goodness and power of God, that if, with due prayer, these blackened morsels are conjoined with her blood collected in a phial, both spirit and soul re-enter the dead body and resurrect it to new life.

Pictures should accompany the text, the first of a woman struggling with a man who attacks her with a blazing torch. Next, white birds fly up to the clouds as the man tears her dead body apart. A fire burns nearby. Third, a picture of a tomb, skull and crossbones below, a dove darting down from the clouds above, and the alchemist beside it in prayer. Finally, fully clothed, she stands by the kneeling alchemist, who looks up at her in amazement and delight.

In a modern text-book, alas, the drama is passed over in one line of dull, dry, symbols, or expressed in a cryptic sentence "Anhydrous copper sulfate loses a mixture of sulfur di- and tri-oxides and oxygen on heating", which is just as unintelligible to anyone who escaped chemistry at school, as any alchemical quotation.

Whilst the behaviour of copper sulfate fits comfortably into the Air-Water-Earth-Fire, Soul-Spirit-Body, Resurrection framework, not all substances are so obliging. Turning the philosophical eye onto a piece of bread toasting at the fire, the moist airy spirit obviously exhales, then, as the blackened residue burns, the fiery soul exhales, attracted by the outer fire, leaving only a white calx or body. Unfortunately, nothing will resurrect the original piece of bread. In the terms of the

theory, it must be too wet, earthy and impure to be worthy of Resurrection.

Lime-burning was another puzzle. Limestone, shells or marble (all basically calcium carbonate) plainly lost their Spirit or Moisture, and their Soul or Sulfur or Form, leaving a white, formless powdery body, but this body was not in the least dead, rather it was very "quick" or alive, for when water was poured on it, so much heat was produced, that the water boiled. Obviously, another much more active Fire, Soul or Sulfur had somehow entered the body during the heating.

Hence the appearance in alchemy of two sulfurs - a volatile, lost on heating ; and a fixed, that did not "fear the fire". Sometimes they were classified as comburent sulfur (that which causes burning, the active burner), and a combustible sulfur (that which is burnt, the passive burnee). Paracelsus described in outline the preparation of white phosphorus thus :- "Take urine and thoroughly distil it. Water, air and fire will ascend together, but the fire remains at the bottom.... at the fourth distillation the water will ascend first, then the air and the fire..." If the air and the fire were collected and "put in a cold place, there will be congealed certain icicles, which are the element of Fire." White phosphorus is prepared by heating phosphates to 1400° C with coke or charcoal. It is very poisonous, ignites on exposure to air, and is converted into the safe red form by heating to 400° C in the absence of air. The phenomenon whereby some chemical elements like carbon, sulfur and phosphorus can exist in different physical forms is called allotropy. Let no one say that chemistry is not also full of marvels and wonders !

The modern theory of Fire as a process rather than a thing was not fully stated till Robert Hooke, founder of the Royal Society and noted experimenter, published his "Micrographia" in 1665, where he compared burning to the dissolving of the combustible fuel in air.

There was good reason for the importance of urine and dungheaps to the alchemist. From urine itself, phosphorus and ammonia might be obtained, and from manure-heaps, leached with water, nitre, the alchemists' Wonderful Salt. They were, indeed, the standard source of nitre for gunpowder.

As far as we know, the idea that things owe their shape to a Soul or Form that somehow comes and enters them, is due to Socrates (469-399 BC), the son of a sculptor, who gave up sculpting himself in favour of public life. Reasoning by analogy from a sculptor's ability to see in the rough block the finished statue in his mind's eye, he declared that the shape of everything was dictated by its Soul or Form, or Idea, kept in a kind of celestial store-room, the mind of a First Cause, who lived somewhere outside our world in the glassy or crystal spheres in which the stars, sun, moon, and vagabond planets were embedded.

So we are told by Socrates' pupil Plato (real name Aristocles, 429-347 BC), for he wrote nothing himself. Some Forms were better than others. The free, male, Greek citizen was the best Form; women were derived by reincarnation from such free male Greek citizens as had been cowardly or unjust in a previous life ; animals, birds and fishes from one who had behaved even worse and kept on degenerating in each incarnation.

Aristotle (384-322 BC), Plato's pupil and tutor of Alexander the

Great, accepted the master's teachings on the production of other life by the degeneration of men, but modified the Form theory to say that the really important thing was Form-in-Matter. He has had a great influence through the Schoolmen, those medieval Christian philosophers who "tried to reconcile the teachings of the Church with the dictates of human reason", for it was he who provided the "human reason". Form was always Good, True and Beautiful, but had to struggle to impress itself on bad, rebellious, irregular Matter, thus accounting for the variety of the world. The reason Matter was so inferior and disobliging? Because it had the same relation to Form as a slave to its master. Aristotle accepted slavery as natural, for he saw it existing everywhere in nature. Also, by this time slaves were the energy source - conveniently renewable by breeding or catching more - on which Greek and later Roman civilisation absolutely depended. Even that eminent oddball and Father of the Church, St. Augustine (354-430 AD), Bishop of Hippo in North Africa, could not imagine society without slavery. He blamed it on Original Sin and the Fall of Man.

So alchemist speak of a "formal Air", meaning a vapour that could inform, or give form to something else. If water of eggs, prepared by crushing rotten eggs in water, was warmed, an air was evolved that, passed into lime-water, turned it yellow and orange, and gradually deposited a powder and crystals - in modern parlance, hydrogen sulfide producing calcium polysulfides and sulfur.

One element could change its form into another. Water became Earth when it froze into ice. Robert Fludd in his "Utriusque Cosmi Historia" (1617) tells us how he took "a glass egg, empty and full of nothing but air", sealed it, and heated it very gently at one end, thus causing the thick gross part of the enclosed air to flee the fire and collect in the form of droplets at the far, cool end. Since these drops had come out of the air, they were air in another form. If he had lived in a very dry climate instead of damp England, the experiment might not have worked so well.

Now if all consisted of Body, Soul and Spirit, or Matter ensouled by Form, stones and stars must be just as alive and just as subject to Love and Hate as plants and animals. Since everything was alive, everything must have been born, therefore it must have parents, since sex was the necessary and sufficient condition for conception and birth. Since plants grew from seed, so must animals, metals, perhaps even the Universe itself. Since seeds underwent a strange transformation in the ground to resurrect as plants, like, but not necessarily identical to, the plants they had been gathered from, why should not people and the seed of animals do the same. Since sun, moon, stars and even the disreputable vagabond planets returned to the same places after the same countable number of days, bringing the same seasons, yet also change and growth, constant repetition of earthly processes must somehow do the same.

Hence the admonition to dissolve and congeal (crystallise) repeatedly and not to tire of doing so. Hence the description of an experiment as a Wedding and of the end product as a Child. And if the end product was then reacted with one or more of the original substances used, then the Son married the Mother, or the Daughter the Father, depending on what sex was thought appropriate for what substance. If two separate substances were collected during one operation, and then put together again, this was a marriage between Brother and Sister. The poss-

ibilities are endless.

Finally, these natural philosophers, nurtured in the Classical tradition, had a duty to practice the ancient art of Rhetoric, which is "the art of saying one thing and meaning another", in order to communicate their ideas and findings to their equals, while keeping them secret from the ignorant mockery of the man in the street. Education for all is a plant of recent growth.

So when Aristotle published the notes of his public morning lectures, Alexander wrote to him complaining "Now we who have been instructed by you are no better than other men!" Aristotle reassured him by saying that only those who had attended the private afternoon lectures and received oral instruction from him would be able to understand the published notes.

So that famous philosopher and statesman, Sir Francis Bacon (1561-1626) declared in his "Advancement of Learning" that "by the intricate envelopings of Delivery, the profane and vulgar may be removed from the secrets of sciences".

There was another reason for using Rhetoric. Copyright did not exist, so how else could one protect oneself against plagiarism? Besides, no one wanted to run into trouble with the Establishment.

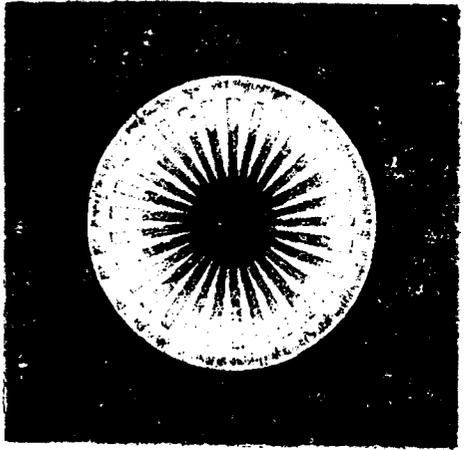
Allowing for all this, and taking the late sixteen hundreds as the break point between alchemy and chemistry, we know that the alchemists can be credited with the discovery of phosphorus, alcohol, ether, (Basil Valentine), gunpowder, oxygen from nitre, pyrophoric mixtures, probably chromium (Paracelsus' white arsenic that rendered iron rust-free when fluxed with it). Their practical ability far outran their theory, and if we want to do them full justice, we shall have to go to the trouble of learning to use their kind of language and think in their terms ourselves.

# ROBERT FLUDD'S GREAT TREATISE OF ROSICRUCIAN SCIENCE

ADAM MCLEAN ©

The just published thirteenth volume in the Magnum Opus Hermetic Sourceworks series provides the first ever translation into English of the opening two books of Robert Fludd's 'Utriusque Cosmi Historia' - 'The History of Both Worlds'. In this vast tome issued in five parts during the period 1617 - 1621 from the press of Johann Theodore de Bry, Fludd attempts an encyclopaedic outline and synthesis of the Western esoteric traditions of the relationship between the Macrocosm and the Microcosm, the Cosmos and Man. In the scope of his vision and the sheer volume of his output, Fludd stands high above all other writers of the period, as the one who summed up the esoteric wisdom of that age in a coherent codified form. In looking at the structural plan of his magnum opus 'The History of Both Worlds', we cannot but be deeply impressed both by the breadth of his interests and scholarship and his grasp of a unified vision of the underlying structure of the worlds, linking the outer Cosmos and the inner world of Man. Robert Fludd possessed this unitary vision, in which all facets of the world, Art and Science, Music, the Creation of the Cosmos, Meteorology, Anatomy, etc., were seen as arising out of the same spiritual ground. This fundamental sense of a spiritual structure to the Cosmos is the key to Fludd's writings, and it was this esoteric perception that he tried through his vast output, to demonstrate and illustrate.

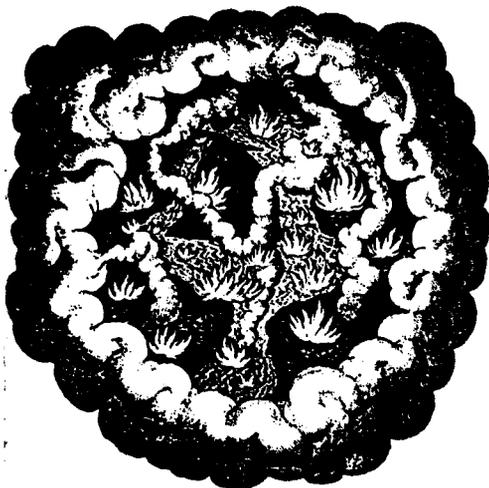
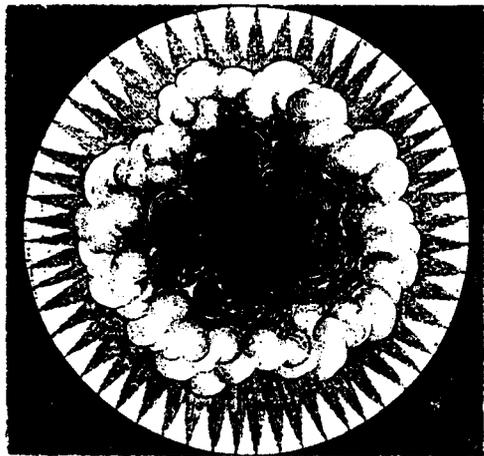
Fludd was aware that he stood at an important point in history, that he was heir to a vast body of Western mystery wisdom, which in earlier centuries had been available only to initiates in secret orders and societies. During Fludd's life, which spanned the Elizabethan and Jacobean periods, the height of the English Renaissance, much of this esoteric lore had poured into outer society and some of these important esoteric facts in the public arena were likely to be embellished and distorted. Fludd saw the need to synthesise this esoteric wisdom into pure forms that possessed an intellectual foundation, the solidity of archetypes. His books thus always have a clarity of vision, and the ideas he presents are so well shaped and structured, that they are still easily approachable today, and even although his language and literary style may now seem cumbersome, the forms of his ideas still shine out clearly.



Et sic in infinitum

Another factor which impelled Fludd to work at his writings, was the outer discussion of new ideas, both of the structure of the Cosmos and of Man's inner being, that were beginning to arise in the late sixteenth century, which when pursued to their ultimate conclusions, provided a non-spiritual view of the Cosmos and Man and the foundations of a materialism. Fludd was acutely aware of the potential damage that could be done to the esoteric tradition if these new ideas took hold upon his contemporaries, and this impelled him to demonstrate in his vast tomes the wholeness and integrity of a view of the world that was ultimately spiritual, and also to involve himself openly in debate upon sensitive topics. Thus he defended the Rosicrucian movement as a source of spiritual wisdom, and also engaged in debate on the important topic of cosmology, supporting the Ptolomaic-spiritual view of the Cosmos against the new Copernican-mechanical picture that was at that time beginning to emerge.

Fludd was in this sense a rugged traditionalist, holding rigidly to the established ideas of the Western esoteric tradition, however, he was in no way set against progress in ideas and Science. Indeed, he was in many ways far ahead of his contemporaries in the realm of mechanical invention. He invented a barometer, and had thus observed and investigated the effects of changes in atmospheric pressure some three decades before Torricelli and Pascal discovered this phenomenon in the accepted scientific tradition. He made many experiments in Magnetism, building upon the work of Gilbert. Fludd was among the first writers to wholeheartedly accept Harvey's theory of the circulation of the blood. So the picture of Fludd as a rugged traditionalist clinging to an outmoded philosophy, which view is, regrettably, current in some present day writings upon him, is an altogether inadequate description. Fludd was in the forefront of many new ideas. He did not cling to the ancient ideas of the esoteric tradition, out of a need to hold to the past, or some inner insecurity, but because he perceived them to be true. He could also see that these ancient hallowed ideas, united Man to the Cosmos, gave him an inner integrity, an inner foundat-

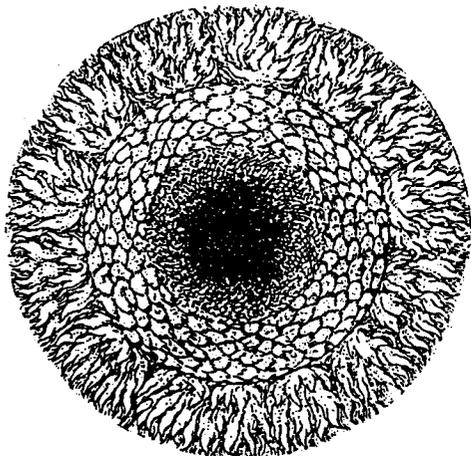
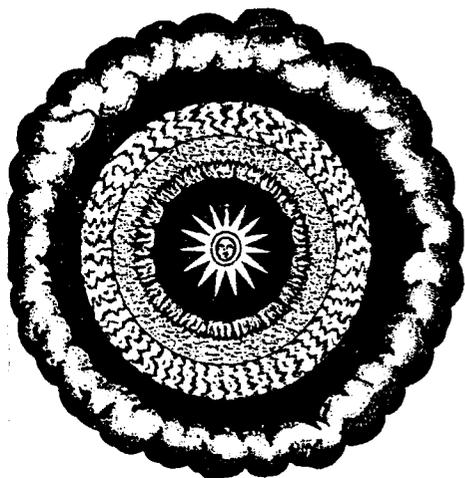


ion. He was acutely aware that if this holistic view of Man were to be removed, then humanity in general would fall into great danger and uncertainty about their place in the scheme of things. Thus his spiritual philosophy is the foundation of a 'psychology', a knowledge of the Soul which gave mankind a picture of their inner relationship to the Cosmos and the Earth, the Above and the Below, the Spiritual and the Material, the Noumenal and the Phenomenal.

In the opening decades of the seventeenth century, the traditional esoteric view of Man's place in the scheme of things was being challenged in many ways, but perhaps one of the most important of these challenges was posed by the Copernican World view which was being voiced at that time.

The Ptolomaic world picture holds that the Cosmos is centred upon the globe of the Earth, which contains the realm of the Four Elements, and which is surrounded by a series of heavenly spheres bearing each of the seven planets, from the innermost sphere of the Moon, through the spheres of Mercury, Venus, the Sun, Mars, Jupiter, to Saturn the outermost planet, then the Sphere of the Fixed Stars, and the Sphere of the Primum Mobile, which bounded upon the the highest spiritual realm. The Ptolomaic universe thus pictures a great chain of levels of being uniting the Spiritual and the Material, the Above and the Below. This view which accords with Man's naive perception of the movements in the heavens, also gives Man a central place in the scheme of things. Thus, it is in essence a spiritual philosophy of the Cosmos.

The Copernican view of a Sun centred universe, with the Earth and other planets orbiting around its centre seemed to Fludd and other traditionalists to strip mankind of a central place in the Cosmic scheme. To Fludd's thinking, this could only give rise to a non-spiritual picture of the Cosmos, and thus he combated this new development in human thinking both by attacking his opponents in print and by demonstrating in his great tomes the integrity of the Ptolomaic view. Through exhibiting the ramifications of this phil-

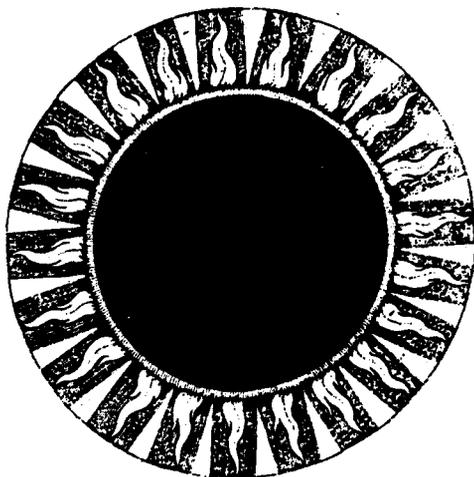
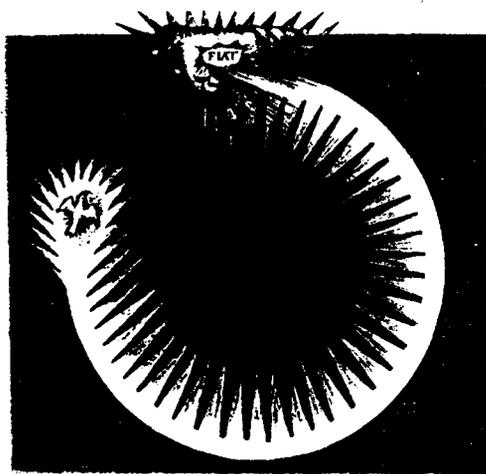


osophy in many domains of human aspiration, he sought to show the wholeness of this viewpoint was unchallengeable.

The mechanistic Copernican picture, however, was to prove a better model for calculating the movements of the planets, and through the work of Kepler it became firmly established as the new envisaging of the Cosmic structure. However, as Fludd had perceived this new picture did hold a danger for the human soul, and in time an holistic cosmic picture in the old Fluddean traditional esoteric sense became more and more impossible. With this new development of a more abstract consciousness, humankind had to pay a heavy penalty in their souls, in that western humanity came to lack a vision of their having a central place in the world and that the human soul realm was connected by a great chain of being to the highest spiritual realms. Man lost the sense that his role in the cosmic order was as a mediator of the spiritual and the material. The loss of an inner foundation to our souls, which characterises twentieth century humanity, can be connected with this fading from outer society of a cosmological picture which has a spiritual foundation, nor indeed a place for Man.

Of course, we cannot deny the value of our present day Copernican view of the Universe, but in a sense, even in its own terms, as a true description of the movements of the planets, it is also invalid. It is only an approximate picture, for the Sun is not at the centre of the Universe, and the planets do not move around it in elliptical orbits. According to present day astronomical observations, the Sun also moves, rotating at vast speeds with our galaxy. Thus the solar system moves in an arc and the planets spiral in helices around the centre of its motion. Added to this, our galaxy itself also has a motion away from the centre of the Universe, and this should be added as another layer to this already complex series of motions.

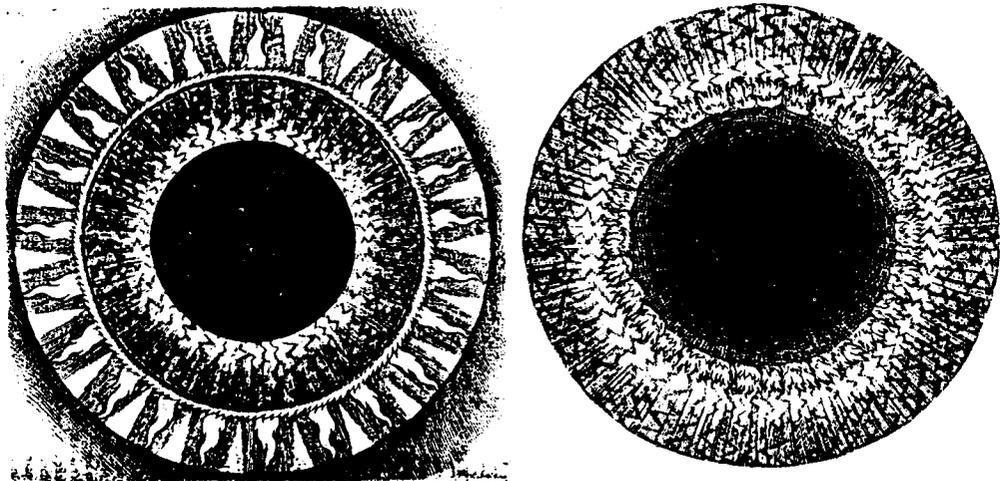
Einstein, in his Theory of Relativity, pointed out that absolute motions are not describable in any real way. All motion can only be described relative to some chosen reference point. Thus, in a strange way, the conclusions of twentieth century materialistic



science point towards the fact that one can choose any point to centre our Cosmos upon. The naive view of the Earth-centred Cosmos is no longer ruled out in Relativistic Science as it was in nineteenth century Absolutist Physical Science. We can choose our reference point where we wish. We must also come to see that there are no absolute theoretical models. A theoretical picture in thought, only mirrors inwardly in the human soul the outer reality. Thus we must choose our models of reality according to how we wish to view this outer world, and consequently, we can hold simultaneously in our consciousness many different models of the same facts of the outer world without there being any contradiction, as these models are all used in different ways, for different purposes. Thus the Copernican model is fine if we wish to calculate planetary movements. The Ptolomaic model also has a value in picturing other kinds of relationships. Only when we insist upon an absolute theoretical model of reality, can there be any contradiction in using these two Cosmic pictures. If we are aware of this relativity in our theoretical models of reality then the Fluddean Ptolomaic Universe can become again a valid picture of the Cosmos. The advantage of choosing this reference point and this view of the Cosmos is that it brings us again in touch with the unity of the inner and outer worlds, the correspondence between the Macrocosm and the Microcosm, that lies at the heart of the esoteric wisdom tradition, and gives us a spiritual psychology, a view of our soul's place in the scheme of things.

Thus, I feel that these opening sections from Fludd's great work on the History of Both Worlds which deal with the Origin and Structure of the Cosmos, are still vitally relevant to our souls today. This material is not merely of concern to historians of the period, but can provide us with an inner nourishment, feeding our perception of our individual place in the world, making the tasks of our life relevant to the greater scheme of things.

Fludd is concerned in the opening two books in his volume on the Macrocosm, to give us a clear picture of the evolution of the Cosmos, of its precipitation from Spirit and the way it has become

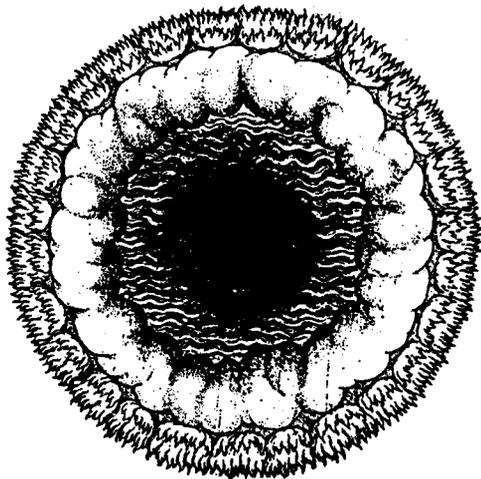
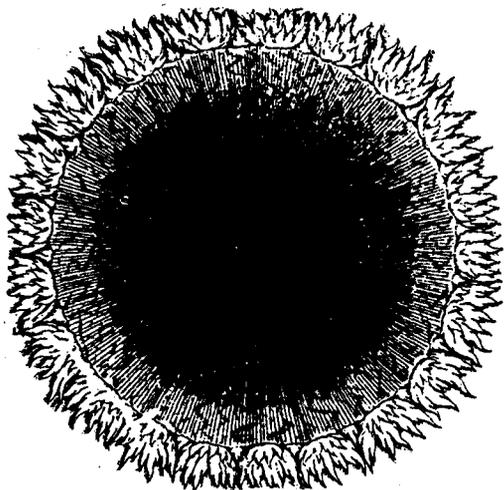


structured through the process of incarnating certain spiritual impulses in material form.

In the first book he focusses upon the origin of the Cosmos, its Emanation from the One Unity of the highest Divine level of Being. This emanation once pressed out of the Divine realm, immediately takes on a dualistic nature, appearing polarised as light and the prime matter. Fludd shows how these forces are reunited in the formation of the Cosmos, and his picture is here so archetypal and pure that his ideas could be clothed with concepts from present day Cosmology. For example, in the contemporary scientific model of Cosmogogenesis, shortly after the 'Big Bang' the energy in the Universe divides into photonic energy ('light' in Fludd's sense) and nucleonic energy ('prime matter' in Fludd's Cosmos). There is little difference in the archetypal form of ideas between Fludd's esotericism and present day Cosmology, merely one of nomenclature.

In the second book, Fludd pursues ideas on Cosmic structure, showing how the different Spheres came into being - the Emypyrean Sphere, the realm of the Ethers and the region of the Elements. He pictures an evolutionary process through the days of Creation, focusing upon the first three days and showing how these different spiritual realms came into being. We can recognise here the source in the Western esoteric tradition, for the picture of the spiritual evolution of the Cosmos that was presented in the late nineteenth century by Madame Blavatsky in her 'Secret Doctrine', ostensibly from esoteric Buddhist sources, and which was further developed by Rudolf Steiner in his book 'Occult Science'. Steiner's picture of the previous embodiments or incarnations of the Earth in finer spiritual planetary bodies, corresponds almost exactly to Fludd's picture of the evolution of the Cosmos through the various days of Creation.

In Fludd's picture, just as in Blavatsky's and Steiner's, we have a descent of spirit into matter through an evolutionary process. Thus we have evolutionary stages in which the Cosmos consisted of sphere of Ether, or realm of Light, later forming worlds of Air and Water, from which the solid material globe of the Earth we know today, was eventually fashioned.



Students of occultism in the present century have always found a degree of difficulty in relating the picture of the spiritual evolution of the Cosmos presented by Blavatsky, Steiner and the Theosophists, to earlier sources, and sceptics have often expressed the view that this picture was contrived by these late nineteenth century occultists merely as a spiritual envisaging of Darwinian evolutionary theory that was capturing the public imagination at that time. Now, however, we have this translation of Robert Fludd's Origin and Structure of the Cosmos, I think we can recognise that such ideas on the spiritual evolution of the Cosmos were contained within the body of Western esotericism at least some three centuries earlier at the time of Robert Fludd.

Fludd's text is illustrated by a number of fine engravings by Johann Theodore de Bry. These present to us in pictorial form the essence of Fludd's statement, and readers will find these of the greatest value for their understanding of the Cosmic process he outlines. Indeed, readers will find these invaluable if used in sequence as the basis for a series of meditations. In this way many of the difficulties of the text will be resolved. The illustrations in Fludd's works are always so well integrated with the message of the text, that they complement and mirror it on a symbolic imaginative level. They are in no sense illustrative additions, but an integrated part of the work itself. It seems likely that Fludd himself provided quite explicit sketches for these illustrations (see Joscelyn Godwin's ROBERT FLUDD, p 86), although it was left to de Bry to give them the compositional elegance and cleanness of line that characterises his work as an engraver.

The publication of this work will, I hope, allow the reader to see the kind of Cosmic picture that lay at the heart of Western esotericism in the late sixteenth and early seventeenth centuries, and to realise that this Cosmology of the spiritual evolution of the world was the foundation of Rosicrucian Cosmic Science. I trust also this book may help people to assess Fludd's contribution to the Western Tradition, and might in time inspire further translations of his works to be prepared.

PLAN OF FLUDD'S HISTORY OF THE MACROCOSM AND MICROCOSM

Fludd, Robert : Utriusque Cosmi Maioris scilicet et Minoris Metaphysica,  
Physica Atque Technica Historia In duo Volumina  
secundum Cosmi differentiam divisa ...  
Johann Theodore de Bry, Oppenheim & Frankfurt, 1617 - 1621

VOLUME ONE - THE MACROCOSM

TRACTATE ONE - METAPHYSICS AND COSMIC ORIGINS

- Book One The Origin of the Macrocosm
- Book Two The Structure of the Macrocosm
- Book Three The Music of the Spheres
- Book Four The Creatures of the Empyrean Heaven
- Book Five The Creatures of the Ethereal Heaven
- Book Six The Creatures of the Elementary Heaven
- Book Seven The Bodies of Imperfect Mixture

TRACTATE TWO - ARTS AND SCIENCES

- Book One Universal Arithmetic
- Book Two The Temple of Music
- Book Three Geometry or the Art of Measurement
- Book Four Optics
- Book Five The Pictorial Arts
- Book Six The Military Arts
- Book Seven Motion
- Book Eight Time
- Book Nine Cosmography
- Book Ten Astrology
- Book Eleven Geomancy

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TRACTATE ONE

SECTION ONE

- Book One Divine Numbers
- Book Two Divine Harmony
- Book Three The Internal Part of Man
- Book Four The Numbers and Harmony of the Interior of Man
- Book Five The External Part of Man
- Book Six The External Harmony of the Microcosm
- Book Seven The Internal and External Microcosm or the Mind  
Acting in the Body
- Book Eight The Middle Soul of the Microcosm Acting in the Body
- Book Nine The Soul of Sensation Acting in the Body
- Book Ten The Threefold Soul seen in the Body
- Book Eleven Sperm and Generation
- Book Twelve The Internal and External Harmony of Man
- Book Thirteen The Practice and Composition of the Music of the Soul

SECTION TWO

- Part One Prophecy
- Part Two Geomancy
- Part Three The Art of Memory
- Part Four Nativities and Genethliology
- Part Five Physiognomy
- Part Six Chiromancy
- Part Seven The Pyramid

TRACTATE TWO

SECTION ONE

PORTION ONE - THEOSOPHY, CABALA AND PHYSIOLOGY

- Part One The Character of the Supernatural and Mystical
- Part Two The Character of the Natural, of the Elements and the Physical World. The Primary Elements of Nature

PORTION TWO

- Part One The Origin of the Archetypal Idea of the Microcosm
- Part Two The Origin of the Natural Philosophy of the Microcosm
- Part Three The Principles of the Macrocosm and Microcosm, and of the Causes Meteorological

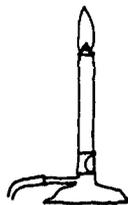
PORTION THREE - ANATOMY

(Appeared as Anatomiae Amphitheatrum, 1623)

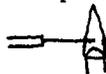
PORTION FOUR - METEOROLOGY AND COSMOLOGY

(Appeared as Philosophia Sacra, 1626)

Our experiments continue, now, with the exploration of the colours revealed by metals when acted upon in special ways by the element Fire. For this we require a bunsen burner as a source of flame. The bunsen burner has the advantage that one can control the air intake of the flame through simply turning a ring, thus altering the characteristics of the flame, and as it uses hydrocarbon gas as a fuel, the precise level of this can also be precisely regulated.



Our first experiment is very simple, and involves heating various metal salts in the bunsen flame to see what colours are produced. These can be introduced into the flame on a rod, Platinum wire is best, but a porcelain rod, or even one of graphite (i.e. one can use the lead from a pencil merely trimming off the wood from 3 inches or so of a hard lead pencil, the remaining wood section making a good insulating handle). The substances should be in powdered form, and a small quantity of hydrochloric acid (Acidum Muriaticum) should be available in a beaker. Dip the end of the rod in the acid and then the substance. This will allow some to stick to the rod. Examine the colour imparted to the flame. If we suspend a stainless steel mesh in the flame from a tripod, placing a larger quantity of substance upon this mesh will enable us to examine the coloured flame at leisure. Very beautiful and subtle flame colourations can be produced, and this experiment should be found to be extremely satisfying. It is best to perform it in semi darkness (once fully acquainted with the apparatus and aware of the dangers of the flame). The coloured flames will be found to have a positive influence upon the Soul. The alchemists of old must have often gazed and meditated upon the coloured effects in flames. The substances one should use are the salts (ideally the chlorides) of :-



Sodium	- Yellow	Barium	- Apple Green
Potassium	- Lilac	Copper	- Emerald Green
Calcium	- Orange	Lead	- Light Blue
Strontium	- Crimson	Antimony	- Faint Green
Zinc	- Whitish Green		

The next experiment involves exploring the colours imparted to glass by metal salts. We shall not use ordinary glass for this as it requires very high temperatures, but, rather, glasses produced on heating MICROCOSMIC SALT or BORAX. Both of these were well known to the ancient alchemists. Microcosmic Salt, which was prepared from human urine, thus its name the 'Salt from Man, the Microcosm' was given the symbols  $\square$ ,  $\oplus$ ,  $\square$ . In present day chemistry it is described as Sodium Ammonium Phosphate. It was the substance from which the luminous element Phosphorus was distilled (and although the history of chemistry records this as having been first discovered in 1675 by Brand of Hamburg, Microcosmic Salt had been well known to alchemists for centuries before, and it is likely that some would have performed the simple distillation process that liberates elemental Phosphorus, even centuries before the event in 1675)

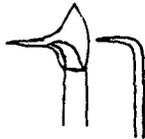
The other substance is Borax, alchemical symbol  $\text{B}$ ,  $\text{B}$ , chemically Sodium Tetraborate, used in medieval times as a glaze and obtained then from volcanic springs in Tuscany. Both of these substances upon fusion in a flame form a clear glass. Colours can be introduced into this glass by the inclusion of small quantities of metallic salts. (The secret of preparing the stained glass for Cathedral windows was an infinitely more sophisticated development of the process we explore here).

We will need a loop of Platinum wire fixed in a glass rod holder (these can be bought from a laboratory supplier for the purpose of the 'Borax Bead test' in analytical chemistry). The wire loop is as follows. Pick up a small heap of  Borax or Microcosmic Salt on this loop and heat it in the bunsen flame until it forms a clear glassy bead. Then dip it into one of the metal salts and heat further in the outer mantle (the oxidising part) of the bunsen flame. You will see how the substance imparts a colour to the glass. (With some metals this colour changes when the bead is further heated in the inner core of the bunsen flame, the reducing part of the flame). Also some beads change colour on cooling. This table gives an indication of the colours to be expected.

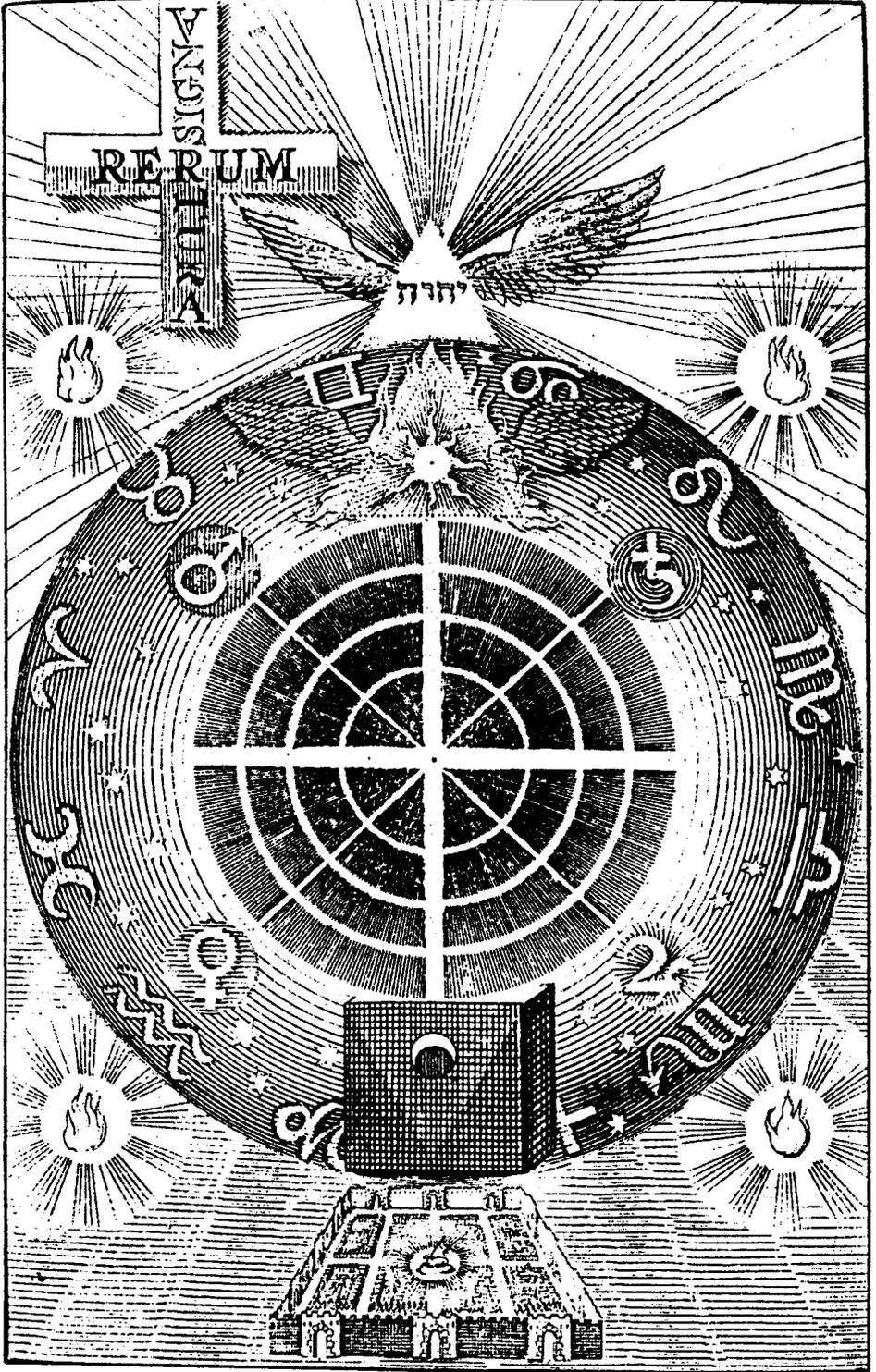
<b>COPPER</b>	Green (hot) - Blue (cold)	Red in reducing flame
<b>IRON</b>	Yellow brownish red	Yellowish Green "
<b>SILVER</b>	Colourless	Gray Opaque "
<b>TIN</b>	Colourless	Colourless "
<b>ZINC</b>	Colourless	Grey "
<b>LEAD</b>	Yellow or brownish(hot)	Grey Opaque "
<b>CHROMIUM</b>	Green	Green "
<b>COBALT</b>	Blue	Blue "
<b>MANGANESE</b>	Violet	Colourless "
<b>MOLYBDENUM</b>	Colourless	Yellow/Brown "
<b>NICKEL</b>	Yellow (cold) - Red (hot)	Brown "

The metals when dispersed as small particles of oxide in a transparent glass, impart a characteristic colour to that glass. This is not merely a surface phenomenon, but rather, these metal oxides transform the light passing through the glass with their characteristics. Glasses made in this way, has an iron-like radiation, or will transmit a coppery quality, etc. It would be interesting to be able to follow up the implications of this experiment in great detail as there is a whole realm of Alchemy in stained glass craftsmanship. (Perhaps this will be pursued in an article in some future issue of the Hermetic Journal). In performing this experiment, we are, in a small way, repeating the alchemy of the stained glass workers of the medieval period.

Our final experiment, is the reduction of metal salts to a metallic form, and for this we require a much hotter flame than is available with the bunsen burner alone. We shall need to obtain a blowpipe. This is a simple piece of apparatus - some experimenters might even make their own from glass tubing. They can be purchased from laboratory suppliers as equipment used in the Charcoal Block Test of analytical chemistry. Taking up our blowpipe, we set the bunsen flame quite low, and adjust the air until we have a blue but not roaring flame. On blowing gently and steadily down the blowpipe tube, we should be able to manoeuvre the opening



(Continued on page 44)



This mandala appears as an illustration to Jacob Böhme's Signatura Rerum, in the 1682 edition.

At the top left and beside the mandala proper, we have SIGNATURARERUM the 'Signature of things' shown in the form of a cross. Interestingly, on the vertical arm we see a polarity, in that on the upper limb the SIGNA- reads upwards, while on the lower limb -TURA reads downwards. The letters V and A also incorporate a polarity.

Turning to the mandala itself, we see at the top a winged triangle bearing the fourfold Name of God  $\Pi \Pi \Pi'$ . It radiates out in the heights of the spiritual world, seven rays or spiritual forces. Below the central circular space of the mandala, we see the Heavenly City, the New Jerusalem of the 21st Chapter of Revelation, with the Lamb at the centre and the twelve gates. Thus we have a polarity between God, remote in the Spiritual world upon his throne with the seven spirits radiating out, and the establishment of the spiritual principles on the Earth as the Spiritual City. The mandala in the central space shows what must be integrated for these hidden remote spiritual forces to be brought into outer actuality as the realm of the Spiritual City.

This central mandala is surrounded by four flames, representing the spiritual archetypes of the four elements. These added to the triune realm of the Divine give the seven spirits. The Divine acts through the three parts of the Trinity - Father, Son and Holy Spirit - and the Quaternity of the Four Archangels of the Elements and Directions of Space (Michael, Uriel, Gabriel, Raphael, although they are not named here). These exist in the heights of the Spiritual World, but mediate through the Zodiacal realm of the stars. Thus they connect with  $\text{♉}$  Bull,  $\text{♌}$  Lion,  $\text{♍}$  Eagle,  $\text{♎}$  Man. The twelve Zodiacal signs in this middle sphere also link with the twelve gates in the Heavenly Jerusalem. These four archetypes are further mediated into the central region of the world space of the mandala, by the planetary spirits  $\text{♁}$ ,  $\text{♃}$ ,  $\text{♄}$ , and  $\text{♅}$ , which Böhme calls the Seven Properties and connects with the Vision of the Godhead with the seven candlesticks of Chapter One of Revelation. Böhme interprets the Seven Stars in this vision, as spiritual principles externalised in the planetary bodies.

Above, at the top of the circular space of the mandala, a winged flaming triangle bears the Sun disc. This is the reflection of the upper spiritual triangle in the middle realm of the stars, the Astral world. Below, polarised with this flaming triangle, is the square formed Cube bearing the Lunar crescent. This is the Foundation Stone of the Heavenly Jerusalem, the Corner Stone of the Christ. We note that it bears within it a shadowy downward pointing triangle; and we also note that the sun disc above has twice four-fold radiating flames. The alchemist must unite the Three with the Four, that is, must bring the spiritual Trinity into the material world of the Four Elements. These, when added together form the Seven principles; and, when multiplied, give the Twelve Zodiacal Gates of the New Jerusalem.

Arising out of these polarities, we realise that this mandala is dominated by a symbol which is not outwardly delineated. This is Mercurius  $\text{♃}$ , its caduceus being formed by the two wings of the Sun triangle, the inner central circle of the mandala, and the four-fold cross defined by the Cubic Stone. Mercury, the living substance of the human soul, unites the polarities, the spiritual and the material. We note also that the planets above the middle line of the mandala,  $\text{♁}$  and  $\text{♃}$ , have the

cross of matter above ; while the planets below this line, ♀ and ♃ , have the material cross below.

The alchemist using this mandala, must place his consciousness at the central still point, and using the inner mercury of his soul, unite the above and the below, the spiritual and the material, in order to contribute to the building of the New Jerusalem.

REVIEWS    REVIEWS    REVIEWS    REVIEWS    REVIEWS    REVIEWS

EARTH RITES : Fertility Practices in Pre-Industrial Britain by Janet and Colin Bord  
Granada Publishing Ltd, 1982. HB 273pp  
hundreds of photographic illustrations £8.95

This latest book by Janet and Colin Bord is a documented survey of the fertility rites and practices in Britain. They explore the various ways in which our forbears in Britain have sought to relate themselves to the energies they experienced in the Earth through the Seasonal Cycle. The authors show that many traditional folk customs incarnate ways of empathising with or attuning to the living energies in the cycle of the year and the body of the Earth, and other practices are clearly revealed as being the remnants of propitiatory rituals addressed to the ancient Gods and Goddesses. The Bords explore the vast realm of traditional rites and practices recorded in Britain, and show that our ancestors in these islands experienced the Earth in the cycle of the year through polarities. Lying only just behind the outward folk tradition is an awareness of the Polarities of the above and the below, the Earth and Heaven, the Male and Female energies at work in the cycle of the seasons, which unite universal Nature with the work of humankind in the growing of the crops. These polarities are seen in the folk tradition as Earth Mother Goddesses and Divine King, the Sheela-na-gigs and the Green Man, and found associated with Standing Stones, Holy Wells and sacred trees. The ancient peoples of these islands knew that they had a part to play in the vast scheme of things, in that their activities and rituals which incarnated these polarities, set the seal upon the proper unfolding of these forces in the seasonal cycle, and that fertility depended upon their recognising the part humankind had to play in this cycle. Such a sense of having a part to play in the scheme of things has been more and more lost with the coming of industrialisation, but it is gladdening to the heart to realise that the folk tradition holds in store such a vast body of ancient wisdom related to fertility practices. Perhaps such Earth Rites will again be a part of the human experience of the world, for in our present age of social uncertainty and existential problems for the personality, such Earth Rites, developed of course into forms suited for the present day, might provide means for people to 'earth' themselves, and provide a solid foundation within their beings. These ancient rites certainly hold in trust a valuable legacy for us, which the Bords have, through their meticulous research, outlined and illustrated in this excellent book.

THE LIVING EARTH MANUAL OF FENG-SHUI  
Chinese Geomancy by Stephen Skinner  
Routledge & Kegan Paul 1982 PB 192pp  
line illustrations £4.95

In this book, Stephen Skinner has given us a unique, clear and valuable account of the fundamental principles of the ancient Chinese esoteric science of landscape, Feng-Shui. As little of any solid substance has till now been published on this topic, except for a small monograph by the Rev. Eitel, Skinner's research here provides us with much needed insights into this Chinese system. Over the past years so much speculative nonsense, overblown and quite worthless theorising has been produced on the subject of Geomancy and the Earth forces, in popularist type books and magazines. This present book brings a refreshing breeze of reality and solid research into a rather overheated realm of speculation. Stephen Skinner has obviously made contact both with original source material and authentic practitioners of the art in Hong Kong. He surveys the two schools of Feng-Shui, the Form School who use insights into the subtle etheric forces in the Earth gained through examining the form of the landscape, and the Compass School who use an elaborate Feng-Shui compass to determine the points at which certain energies are active. Feng-Shui can, in a sense, be seen as the application of Taoist philosophy to the landscape. The Chinese who worked, and still work, with this ancient science, obviously come to perceive the body of the Earth as a living being, permeated with living energies and points where these pulses beat more intensely. This view of the landscape has regrettably been lacking in the West, and consequently our civilisation has often treated the body of the Earth merely as an object rather than as a living being, destroying important features and building structures that distort the subtle forces in the Earth. This volume provides us with a well researched survey of this important Chinese tradition, from which, I believe we have much to learn.

ALCHEMICAL ACTIVE IMAGINATION by Marie-Louise von Franz  
Spring Publications 1979,  
P.O. Box 222069, Dallas, Texas 75222, USA.  
\$8.50 + \$1.25 post. PB 116 pp

Although this book was published in 1979 and may be familiar to my American readers, it has not been well distributed in Britain and consequently I would like to take this opportunity of acquainting my readership with it. The author Marie-Louise von Franz is well known as one of Jung's collaborators who has continued to research alchemical and mythological material in the light of Jung's perspective. In this book based upon a series of lectures given in Zurich, she comments upon a particular text by Gerhard Dorn (a late 16th century alchemical writer with Paracelsist outlook) included in the compendium 'Theatrum Chemicum' as the 'Chemical Philosophy and the Speculative Philosophy'. Jung himself quoted extensively from Dorn, and it is of great value to have von Franz go through the text in detail, commenting upon important facets of the work. It is regrettable that Marie-Louise von Franz' works are not more readily available in Britain.

THE CHYMICAL WEDDING OF CHRISTIAN ROSEN-  
KREUZ : A Modern Poetic Version by Jon  
Valentine with Imaginations by Arne Salomon-  
sen St. George Publications, Spring Valley,  
New York 10977, USA. HB 132pp £10.50

This book should be of interest to collectors of Rosicrucian material. It is a reworking of this important Rosicrucian/Alchemical allegory into a modern poetic version. Of course, in order to do this, much of the intricate convolutions of the original version of the Chymical Wedding have been pared down to the bare essential outline of the story. This may have a value for some readers, in that it provides an easy text for grasping the essential structure of the allegory. There is also provided alongside the verses of the text a series of 56 imaginative drawings illustrating events in the story.

WORKING WITH PRACTICAL ALCHEMY - continued from page 39

the opening near the flame that an intensely hot flame will be ejected horizontally on the opposite side. This flame is hundreds of degrees hotter than the ordinary bunsen. Practise this until one has mastered the technique and can produce a steady flame for some seconds at a time. (Take care, of course, never to inhale on the blowpipe.)

You will need for this, the samples of metal salts, some Charcoal analytical blocks from laboratory suppliers, and anhydrous sodium carbonate (this can easily be obtained by heating gently in an open crucible, the crystals of Soda we should already have among our stock chemicals, and it should be ground to a powder).

Scoop out a small round depression at one end of a charcoal block, and place into this a small heap of one of our metallic salts mixed with anhydrous Sodium Carbonate. Holding the block in one hand, bring this into the tip of the blowpipe flame, and one will immediately see the substance fusing and being reduced to its metal or metal oxide. A Copper salt produces red scales, Silver a white globule, Lead salts a metallic globule encrusted with white, Zinc a bead with a yellow encrustation turning white on cooling, Chromium produces a yellow bead, Manganese a green bead. It is fascinating to see the creation of the liquid metal from its salt before our eyes. This is one of the primal experiences of Alchemy, the birth of the liquid metal from an ore. There is always a magical quality to this act, when an amorphous grey powder suddenly reveals the magnificent beauty of the metallic state. This was in Alchemy, always a profound act, a Mystery in the old sense. I hope that those who repeat this experiment might capture a little of this Mystery for their souls.